

DOKUZ EYLÜL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF MARITIME BUSINESS ADMINISTRATION
MARITIME BUSINESS ADMINISTRATION PROGRAM
DOCTORAL THESIS
Doctor of Philosophy (PhD)

**STRATEGIC ANALYSIS OF AEGEAN PORTS
IN TURKEY FROM THE PERSPECTIVE OF
‘ONE BELT ONE ROAD’ PROJECT**

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İZMİR – 2022

THESIS APPROVAL PAGE



DECLARATION

I hereby declare that this doctoral thesis titled as “STRATEGIC ANALYSIS OF AEGEAN PORTS IN TURKEY FROM THE PERSPECTIVE OF ONE BELT ONE ROAD PROJECT” has been written by myself in accordance with the academic rules and ethical conduct. I also declare that all materials benefited in this thesis consist of the mentioned resources in the reference list. I verify all these with my honour.

.../.../.....

Mehmet Serdar ÇELİK

ABSTRACT

Doctoral Thesis

Doctor of Philosophy (PhD)

**Strategic Analysis of Aegean Ports in Turkey from the Perspective of
'One Belt One Road' Project**

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The One Belt One Road (OBOR) project is contained of the 'Silk Road Economic Belt (SREB)' and the '21st Century Maritime Silk Road (MSR)' together and its routes will link to more than sixty-five countries, around 35% of the global trade, over 62% of the world's population and approximately 31% of the world's gross domestic product.

In the strategic port planning literature, it is envisioned that ports will update their plans according to comprehensive changes in the global economy. In this respect, the MSR especially OBOR, is one of the issues that should be addressed and studied in the long-term port plans for the next 10 to 30 years. Turkish Aegean Ports hasn't got comprehensive strategies to apply next 30 years with respect to the OBOR project. The aim of the dissertation is to present alternative strategies that can be applied to the ports in the Turkish Aegean region and exhibit the best alternative for Turkish Aegean ports, to show them how they can benefit from the project without excluding the SREB effect, in particular on the MSR.

Swot Analysis was preferred to determine Swot sub-factors of the Turkish Aegean ports from the perspective of port authorities of the Turkish Aegean ports by using a semi-structured interview method. Alternative

strategies that can be applied in the long term for the Turkish Aegean ports are revealed together with the TOWS analysis. In the analysis section of the dissertation, to select the best alternative strategy for the outcome of the TOWS analysis, the Analytic Network process method was applied. The result of the analysis demonstrates that “Trying to be the main port along to MSR route” is the best strategy for Turkish Aegean ports in terms of the OBOR initiative.

Keywords: 21st Maritime Silk Road, One Belt One Road, Silk Road Economic Belt, Turkish Aegean Ports, Port Strategies, SWOT-TOWS analysis, ANP analysis



ÖZET

Doktora Tezi

Türkiye'deki Ege Limanlarının 'Bir Kuşak Bir Yol' Projesi Bakış Açısından Stratejik Analizi

Mehmet Serdar ÇELİK

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Sosyal Bilimler Enstitüsü

Denizcilik İşletmeleri Yönetimi Anabilim Dalı

Denizcilik İşletmeleri Yönetimi Programı

Bir Kuşak Bir Yol (BKBY) projesi, 'İpek Yolu Ekonomik Kuşağı (İYEK)' ve '21. Yüzyıl Deniz İpek Yolu (DİY)' nu kapsamakla birlikte projenin rotaları, dünya ticaretinin yaklaşık %35'ini, dünya nüfusunun %62'sinden fazlasını ve dünya gayri safi yurt içi hasılasının yaklaşık olarak %31'ini oluştururken, girişim 65'ten fazla ülkeyi birbirine bağlayacaktır.

Stratejik liman planlama literatüründe, limanların küresel ekonomideki kapsamlı değişikliklere göre planlarını güncellemeleri öngörülmektedir. DİY, özellikle BKBY, limanlar için önümüzdeki 10 ila 30 yıllık uzun vadeli liman planlarında bu bağlamda ele alınması ve incelenmesi gereken konulardan biridir. Türkiye Ege limanları'nın BKBY projesiyle ilgili olarak önümüzdeki 30 yıl içerisinde uygulamayı planladığı kapsamlı stratejiler bulunmamaktadır. Tezin amacı, İYEK ve özellikle DİY etkisini dikkate alarak Türkiye'nin Ege bölgesindeki limanlara uygulanabilecek alternatif stratejileri sunmak ve Türkiye Ege limanları için en iyi alternatif stratejiyi ortaya koymaktır.

Türkiye Ege limanlarının, liman otoritelerinin bakış açısıyla, Swot alt faktörlerini belirlemek için yarı yapılandırılmış görüşme yöntemiyle beraber GZFT Analizi tercih edilmiştir. TFZG analizi ile birlikte Türkiye Ege limanları için uzun vadede uygulanabilecek alternatif stratejiler ortaya konulmuştur. Tezin analiz bölümünde, Tows analizi sonucunda en iyi alternatif stratejiyi seçmek için Analitik Ağ Süreci yöntemi uygulanmıştır. Analiz sonuçları

gösteriyorki BKBY bakış açısıyla, “DİY güzergahı boyunca ana liman olmaya çalışmak”, Türkiye Ege limanları için en iyi strateji olarak ortaya çıkmıştır.

Anahtar Kelimeler: 21.yy Deniz İpek Yolu, Bir Kuşak Bir Yol, İpek Yolu Ekonomik Kuşağı, Türkiye Ege Limanları, Liman Stratejileri, GZFT/TFZG analizi, AAS analizi



STRATEGIC ANALYSIS OF AEGEAN PORTS IN TURKEY FROM THE PERSPECTIVE OF ‘ONE BELT ONE ROAD’ PROJECT

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LIST OF ABBREVIATIONS

BRI	Belt and Road Initiative
DBI	Doing Business indicators
LBIA	Lehman Brown International Accountants
MFA	Ministry of Foreign Affairs
MOC	Ministry of Commerce
OBOR	One Belt One Road
OLGPBRI	Office of the Leading Group for Promoting the BRI
SREB	Silk Road Economic Belt
MSR	Maritime Silk Road
SWOT	Strength, Weakness, Opportunities, and Threat
TOWS	Threat, Opportunities, Weakness, and Strength
ANP	Analytic Network Process
BKBY	Bir Kuşak Bir Yol
İYEK	İpek Yolu Ekonomik Kuşağı
DİY	Deniz İpek Yolu
GZFT	Güçlü yönler, Zayıf yönler, Fırsatlar, Tehditler
TFZG	Tehditler, Fırsatlar, Zayıf yönler, Güçlü yönler
BRI	Belt and Road Initiative
PRC	People's Republic of China
USA	United States of America
ABD	Amerika Birleşik Devletleri
GDP	Gross Domestic Product
GWP	Gross World Product
NELB	New Eurasia Land Bridge
CMR	China, Mongolia, and Russia
CA/WA	China, Central Asia, and West Asia
CICPEC	China-Indochina Peninsula Economic Corridor
CP	China and Pakistan
BCIM	Bangladesh, China, India, and Myanmar

ASEAN	Association of Southeast Asian Nations
NSRF	New Silk Road Fund
AIIB	Asian Infrastructure Investment bank
FDI	Foreign Direct Investment
ACS	Authorized Capital Stock
ADB	Asian Development Bank
DF	Debt Financing
CASA	China Africa South America
SLOC	Source lines of code
MOU	Memorandums of Understand
COSCO	China Ocean Shipping (Group) Company
MOU	Memorandum of Understanding
TRACECA	The European Caucasus Asia Transport Corridor
TEU	Twenty-foot Equivalent

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INTRODUCTION

Xi Jinping (Chinese President) expressed the content of the “21st Maritime Silk Road (MSR)” and “Silk Road Economic Belt (SREB)” as two-part of the project called a “One Belt One Road (OBOR)” initiative in Indonesia and Kazakhstan (Leung and Lau, 2021: 207-214). One of the most tremendous transportation projects OBOR is also called a ‘Belt and Road Initiative (BRI)’ in the literature. The BRI initiative is a new approach to a regional and international collaboration that supports economic globalization in developed and underdeveloped countries (Chen et al., 2019: 2). The OBOR is cover the ‘Maritime Silk Road and Silk Road Economic Belt’ together and its directions will link to more than sixty-five countries around 35% of the global trade over 62% of the global population and approximately 31% of the global GDP. The initiative will be in the form of energy, telecommunications, health, and education facilities, as well as railways, highways, and port infrastructure projects (LBIA, 2017: 2). The SREB represents the land part of the project, on the other hand, the MSR refers to the sea part of the initiative. The official purpose of the OBOR is ‘procure mutual political trust’, ‘cultural exchange among the participating countries’, ‘economic cooperation between members’, ‘ensure solidarity among the countries in respect to all manner’ (Sun and Zoubir, 2017: 35-47). China and participating countries of the initiative signed many agreements in terms of MSR and SREB economic cooperation. These agreements not only constitute a diplomatic cooperation bridge between China and other OBOR countries but also ensure several infrastructures and financial development projects for governments and private firms (Peng et al., 2020: 4).

The SREB has three different routes connecting to China through the European region, the Mediterranean, the Indian Ocean, and the Persian Gulf (Sauvant and Chen, 2014: 141-163). Infrastructure investment of the OBOR link to six economic corridors of the initiative covering a large part of the rich energy and resources. The development formation of the initiative, based on Economic corridors which constitute the most significant part of the project on the routes will positively contribute to China, and this new development has created a new economic development model for the Chinese government. Road and rail network connections should be combined with different

global ports for the functioning of BRI's maritime aspects (OECD, 2018). The MSR is seaside of the OBOR and it intends to support port development along the route of the MSR hence Cosco shipping which is one of the strongest port terminal operators in China invests in Piraeus Port (Van der Putten and Meijnders, 2015: 7). There are approximately ninety-seven cities and ports along the OBOR therefore this significant initiative will affect the policy, culture, and economy of the participating countries (Ji and Gao, 2018: 270-275). One of the key purposes of the MSR is economic development therefore Chinese government clarifies itself as an economic cooperator in the region that's why many country willingness to attend the seaside of this tremendous project. On the other hand, the Port connection is also important for MSR to increase connectivity along the route (Suri, 2016: 64).

The Chinese government and the Turkish government signed a memorandum of understanding in 2015 to the participation of Turkey in the middle economic corridor of the OBOR initiative. The Turkish government wants to join the project because of the vast amount of trade flow between the European Union and China. Turkey will try to be a logistic hub for the middle side of the economic corridor and export markets of the OBOR project (Inan and Yayloyan, 2018: 6). Turkey is a member of the China-Central Asia-West Asia Corridor and the Chinese government intends to invest approximately eight trillion dollars overall and forty billion dollars part of the investment was reserved for transport infrastructure. Turkey could be the main player depending on the middle corridor's success therefore China and Turkey's relation getting closer concerning mutual benefits (Esmer, 2017). The MSR is an opportunity for the Turkish government to develop Turkey's port infrastructure. BRI not only covers the land part of the investment but also the sea direction of the route will have been developed with the help of Chinese investors and the Chinese government therefore sea part of the investments will contribute to the port network along the route (Gökçay, 2019: 58-68). Turkey and China could collaborate to develop the MSR and integrate Turkish ports into the system (Ergunsü, 2017: 97-124). COSCO Shipping Lines one of the biggest Chinese shipping companies acquired 65% of the share with a cost of 920 million dollars Kumpart which is the third biggest container port in Turkey (Van Marle, 2015). Kumpart's handling capacity is approximately 2.1 million TEU and Chinese companies already transport their goods to Europe via

Kumport therefore this crucial port could be the sea leg of the current MSR route in terms of Turkish participation (HDN, 2017). Several shipping authorities claim Turkey attend the MSR with the handover of the Kumport (Esmer, 2016: 209-207). Turkish Aegean ports have a very convenient location for MSR and transit cargoes from the Black Sea. In addition, the Aegean region is at the crossing point of many transportation networks and MSR routes.

The strategic planning process helps the ports and other businesses for determining the major parts that assist the organization to reach its objectives and goals. Strategic analysis is a crucial part of the strategic planning process to meet the requirements and development plans of the ports and other organizations (Lynch, 2021). Three different strategic port planning concepts were explained in the literature such as short-term, medium-term, and long-term planning. Among the port planning strategies, long-term port planning covers a more visionary and fundamental perspective and helps the development of the port master plan and strategic port plans. Based on infrastructure improvement, capacities utilization and other capabilities for future development in a ten to thirty years long-term port plan are determined to guide significant changes in the economic field related to new development in the port sector. Port authorities should aware of substantial changes that affect port organizations and operations in the maritime sector. The Port planning process indicates that port managers challenge to pick the best-developed alternative in their port planning concept to control the risk and reach possible decent opportunities. Ports should update their strategic plan according to new opportunities and threats of the changing port environment (Notteboom et al., 2021: 495-500). Turkish Aegean Ports hasn't got comprehensive strategies to apply next 30 years with respect to the OBOR project, for this reason, this situation consists of the research problem of the dissertation. Port strategies literature was analyzed in a detailed way however there was no research related to Turkish Aegean Ports OBOR strategies. The MSR, especially OBOR, is one of the issues that should be addressed and studied in the long-term port plans for the next 10 to 30 years for ports. It is an obvious fact that such a huge project as the OBOR initiative will develop rapidly under the leadership of China and will bring great innovation to maritime affairs. Ports authorities should get ready for OBOR especially MSR developments otherwise they could not compete with other ports in their area.

The study aims to present strategies that can be applied to the ports in the Turkish Aegean region and reach the best strategy for Turkish Aegean ports terms of without excluding the Economic Belt effect, in particular on the MSR. Four objectives of the dissertation were examined such as (1)explaining OBOR from different perspectives with the help of different resources, (2)strategic analysis of the Turkish Aegean ports to understand the current position of the ports from the perspective of OBOR, and (3)determining alternative strategies to integrate Turkish Aegean ports and OBOR (especially MSR) and (4)determining best strategies to overcome difficulties related to MSR and giving advice of Turkish Aegean ports managements to have a feasible strategic plan concerning the MSR and SREB. The study is organized as follows: the general background of the OBOR project was explained in chapter one. The second chapter covers the sea part of the initiative referred to as an MSR. Turkey-OBOR relations were clarified in chapter three. Chapter four includes strategic analysis, strategic management process, and strategic planning process of ports. The last chapter is the research methodology and design part of the dissertation.

CHAPTER ONE

GENERAL OVERVIEW OF ‘ONE BELT ONE ROAD’ PROJECT

1.1. GENERAL DEFINITIONS RELATED TO OBOR PROJECT

One Belt One Road project (OBOR) covers complex terminology and definitions. To understand the project clearly, many different topics were explained with respect to the project development stages. It is hard to explain all titles related to the OBOR initiative however major framework of the project was made understandable with the help of explaining the terminology and the main steps of the project related to the land and seaside of the initiative.

1.1.1. Silk Road Economic Belt

The proposed land-based SREB project constitutes an infrastructure network of roads, rail, and oil pipelines stretched across the Eurasian continent (Toktomushev, 2016: 59-65). The SREB links the China region and European countries through firstly Kazakhstan then Russia, and lastly Belarus, and the popularity of the routes increase day by day with the effect of the OBOR initiative from the China region to Europe. One of the planned railway routes along the OBOR route that does not cover Russia is going through from the China region to Europe will help the connection between Turkey and Central Asia via the Georgia-Azerbaijan regions. Other significant SREB railway routes will link the China region and the UK via firstly Kazakhstan, Uzbekistan then Turkmenistan through Iran-Turkey lastly Bulgaria-Romania-Hungary-Austria-Germany-Belgium direction (Figure 1) (Misiągiewicz and Misiągiewicz, 2017: 38).

SREB will concentrate on the economic corridors of the OBOR initiative linking the PRC (People’s Republic of China) to:

- i. First: Southeast Asia, South Asia, and ports in the Indian Ocean
- ii. Second: Middle East-Central Asia
- iii. Third: European area through Central Asia-Russia (Villafuerte et al., 2016: 6).

Figure 1: The Map of the Silk Road Economic Belt



Source: PS, 2020

1.1.2. 21st Century Maritime Silk Road

The MSR would be its proposed maritime equivalent, establishing a maritime corridor via a system of linked seaports and different infrastructure systems (Toktomushev, 2016: 59-65). The MSR, as planned by the Chinese government, will contribute connection between East Asia and Europe and the Mediterranean Sea area, between the South Asia region and East Africa, and between the western Pacific, and the Indian Ocean. China's MSR initiative focused on port development and improvement of trade routes in the Eastern Mediterranean region, Southeast Asia, and the Indian Ocean. China's government participation in seaports and different maritime-related investments could have been seen in the context of broader infrastructure projects in terms of the OBOR program. Sea ports, roads, railways, and aerial ways will integrate into each other by developing the MSR project (Misiągiewicz, 2017: 38).

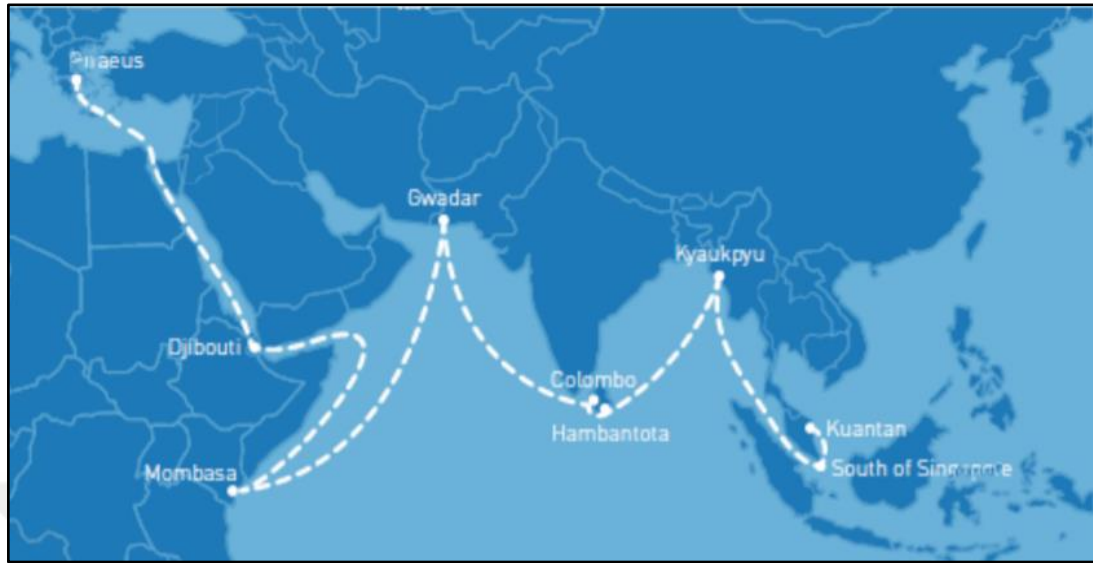
The crucial points related to Maritime Silk Road (MSR) can be listed as follows:

- i. MSR proceeds to expand its geographic coverage to new waters and new routes, as well as trying to diversify and secure maritime communications.
- ii. MSR aims to encounter China's government's major interests by focusing on the blue economies along the route of the initiative. China's administration wants to promote regional sovereignty by ensuring food and energy security also government intend to protect the basic interests of China by increasing its discourse power in the international arena;
- iii. MSR allows expands strategic locations of maritime areas far beyond China's neighboring waters hence China could take advantage of security benefits and take risks;
- iv. The MSR can be seen as a hinder strategy aimed at strengthening China's government resistance to diplomatic, militarily, and economic isolation, which can adversely affect the internal affairs of China in terms of stability;
- v. MSR has the potential to enhance China's extensive economic security and power with the bits of help of global relations advantage of the sea part of the initiative.
- vi. MSR help reduce the security issues of the Indian Ocean area and the around the South China Sea, which is more contested than the MSR's strategic areas.

The MSR will concentrate on connecting China's coastal port areas to The Southern Pacific Ocean through the South China Sea and Europe through the South China Sea and the Indian Ocean (Villafuerte et al., 2016: 7). Key Port Cities of MSR:

- i. Piraeus (Greece)
- ii. Mombasa (Kenya)
- iii. Djibouti (near the red sea)
- iv. Gwadar (Pakistan)
- v. Colombo and Hambantota (Sri Lanka)
- vi. Jakarta and Batam Island (Indonesia)
- vii. Kyaukpyu (Myanmar)
- viii. Kuantan (Malaysia) (Figure 2) (LBIA, 2017: 5).

Figure 2: The Map of Key Port Cities of 21st Century Maritime Silk Road



Source: LBIA, 2017: 5

1.2. ONE BELT ONE ROAD INITIATIVE

The project will be in the form of energy, telecommunications, health, and education facilities, as well as railways, highways, and port infrastructure projects (LBIA, 2017: 5). China's multibillion-dollar OBOR project focuses on three main ideas that help the current situation of the Chinese government; firstly, to assist the slowing economy of China, global domination, and reach new markets for Chinese products. In this respect, some experts claim that this initiative has similar points to USA Marshall Plan which is why they called this tremendous project a Chinese Marshall Plan (Kuo and Kommenda, 2018).

One Belt (Silk Road Economic Belt) intends to bring together the Western Europe region, Eastern Europe, the Russian area, Central Asia, and China linking with the region of the Persian Gulf and the Mediterranean Sea via West and Central Asia and linking China's mainland with Southeast and South Asia, through the area of the Indian Ocean. MSR consists of two routes that run through an extensive sea area, the first route goes through the South Pacific region via the South China area, and the second route covers China's coast area through the European mainland and East Africa area via the Indian Ocean and region of the South China Sea (Zhang, 2017: 1). One of

the crucial aims of MSR is to ensure security cooperation and economic development between member countries by developing infrastructure systems (Villafuerte et al., 2016: 5).

OBOR directs the Chinese government to play a substantial role in global affairs. It underlines the need for export capacity in industries where there is overproduction, such as infrastructure construction and steel manufacturing. Among the different perspectives of BRI, the main objective is to ease the bottlenecks for trade between countries, and investigate how to possess a well-connected transportation infrastructure with effective and efficient logistics services (Herrero and Xu, 2017: 84-99). OBOR indicates a high-level political collaboration to deal with member countries in China to increase investment volume, interconnections, and trade flows.

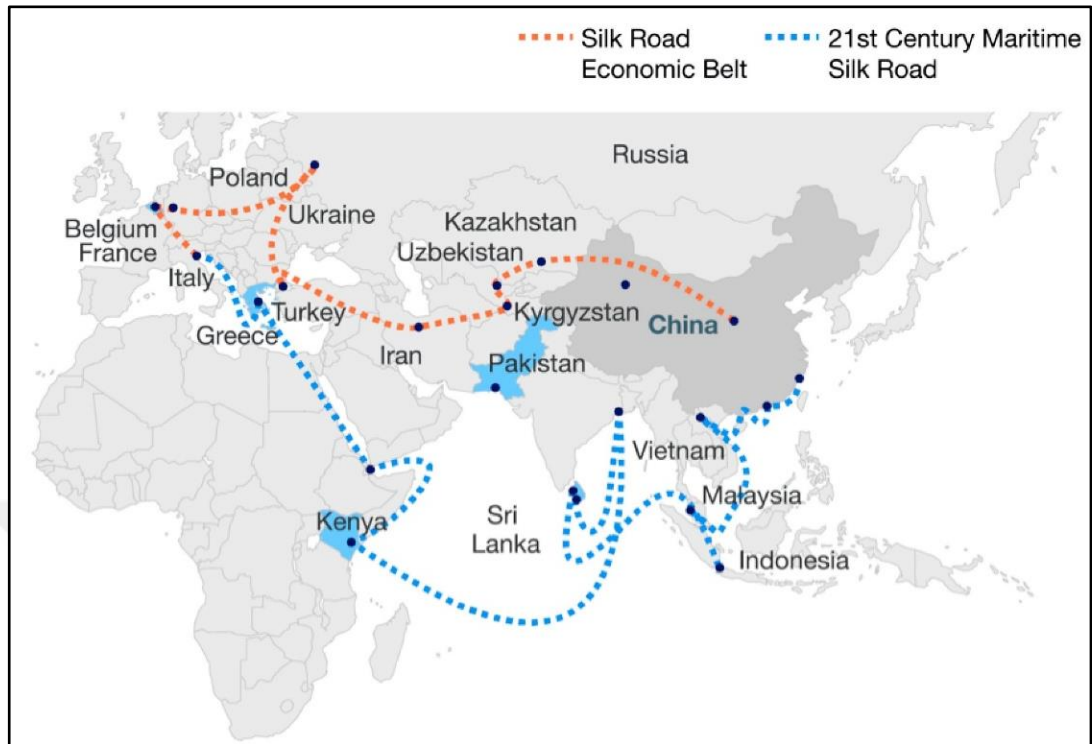
Key sectors for BRI include:

- i. Road, Railway, Ports Infrastructure projects
- ii. Energy and power
- iii. Public services
- iv. Transportation, logistics, and construction
- v. Financial markets all over the world.
- vi. Technological developments, telecoms, media, and information technology (DLA PIPER, 2018).

The geographical coverage of the OBOR project is illustrated in Figure 3 OBOR is trying to indicate a new era of economic relations and territorial diplomacy along the length and breadth of Europe, Asia, and Africa (Herrero and Xu, 2016: 84-99).

The completion process of investment projects could take too long since several types of transport infrastructure investment. Meaningful consequences of the OBOR initiative will have been seen at the end of 2049 which is a special date for the Chinese people as an establishment of China. It is estimated that Chinese investors and the Chinese government will invest in the project approximately three hundred billion dollars, and it is stated that these figures have appeared without taking into account the leverage effect of private lenders and investors (Godement, 2015: 34-38).

Figure 3: The Map of the One Belt and One Road Initiative



Source: Liu et al, 2018: 24

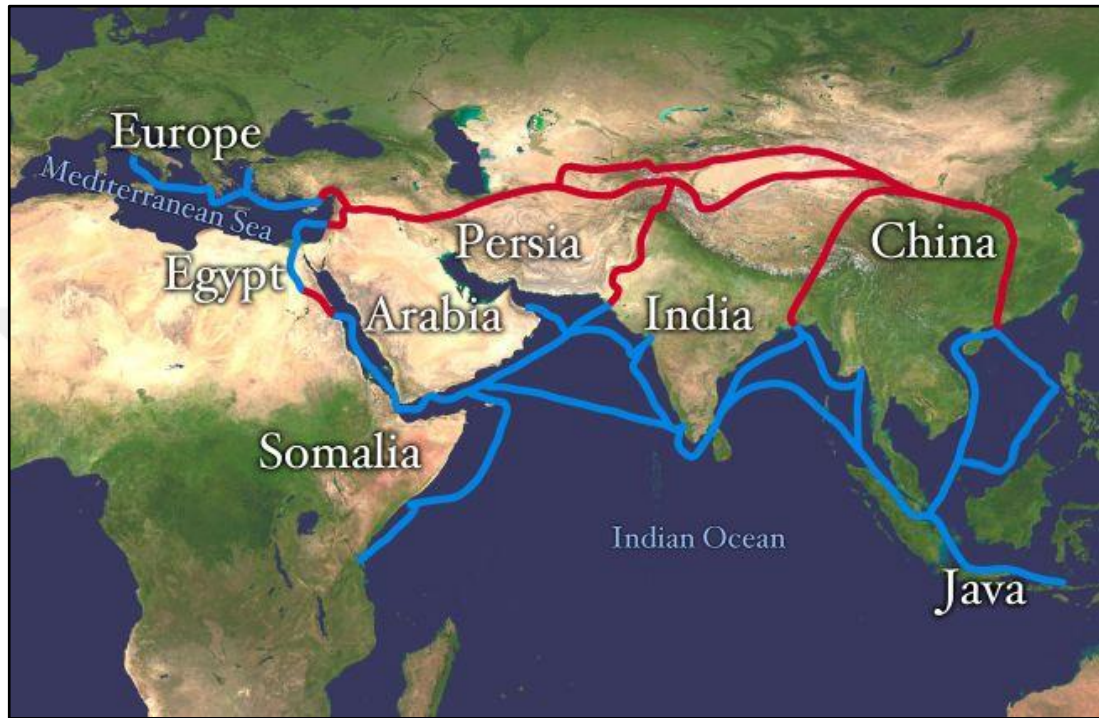
Infrastructure investments related to the OBOR initiative are still ongoing in different places along the direction of both SREB and MSR such as a road-pipelines project in Pakistan and the Bruma region, port investments in Srilanka, and Bangladesh, the freight rail system in Xinjiang. China spends approximately \$2.5trn on the economic corridors of the initiative for more than forty member countries in a decade nonetheless latest developments show that this project is one of the biggest movements in terms of economic diplomacy from ABD Marshall Plan until today (Wang, 2015: 96).

1.2.1. Historical Background of OBOR

The history of the silk road from the past to the present dates back to the 15th century when China first established the Silk Road. It is a 4500 km long road that reaches out through the Chinese state up to India and Sri Lanka. The historical Silk Road was one of the most substantial trade routes during this period. Silk-laden

caravans generally passed through the route and this passage became a significant historical and economic structure. It is believed that the Great Wall of China was built to protect this Silk Road from the bandit's attacks (MI, 2019).

Figure 4: The Map of the Old Silk Road



Source: Unesco, 2014

Routes of the OBOR initiative have many similar points with ‘Old Silk Road’ that’s why land part project called a ‘Silk Road Economic Belt’. The old route was the tool for Chinese merchants to bring their goods to sell in the Asia region and the Middle East. The road was built at the time of the Han Dynasty two thousand years ago (206-BC220-AD) (McBride, 2015: 1). During these periods, the road not only ensures transportation of goods from one point to another but also the road helps the diplomatic relation among the countries that sell their goods on the road and has a connection the road. (Billington 2015). Figure 4 shows the Old Silk Road, which covers more than four thousand miles, passed through the region of Central Asia via Tajikistan, Kyrgyzstan, Kazakhstan, Turkmenistan Uzbekistan area, and Afghanistan lastly before arriving in European land. In ancient times several products were carried through the Old Silk Road such as spices and jade, a piece of silk carried other textiles,

once replaced by gold, ivory, and glass products at their destination (McBride, 2015: 2).

1.2.2. Declaration of the Program

The ‘One Belt One Road’ represents a main extension of creativity on this front by PRC's central government, as China’s President Xi announced to the world media in September 2013. President Xi emphasized the OBOR project at least five times at different high-profile global events after the first announcement. Alternatively called ‘Ground Silk Road’ aims to link China's mainland with Central Eurasia; alternatively known as the Marine Silk Road project started from the coastal region of China and linked to Europe via the Southeast Asia region and Africa. According to the different speeches Foreign Minister of China and President Xi, a route has three options: 1) China, Central, Asia - Europe; 2) North China, Mongolia, Russia - Europe; 3) China, Central Asia, West Asia - Middle East; and one generation, China/ASEAN/Middle East/Europe (Hosain and Hossain, 2019). In the same year, on 3 October, he proposed the construction of a ‘Maritime Silk Road’ at the Boao Forum, addressing the Indonesian parliament (Cai, 2017: 3).

These two projects together consist form parts of a significant project called the “One Belt, One Road” initiative. It is the exactly new trade route strategy of China’s government all-round opening-up and the new initiative for the neighborhood diplomacy of the countries (Wand, 2015). China’s administration submitted the ‘Vision, Mission, and Action on Jointly Building Silk Road Economic Belt (One Road) and 21st Century Maritime Silk Road (One Belt)’ indicating that the OBOR initiative has officially become one of China’s national strategies (Cai, 2017: 14).

1.2.3. Defining the scope and aims

OBOR is China's proposal to link countries, regions, trade areas, and economies in the Eurasian continent with different projects. The main purpose of this project is to improve the infrastructures of the participating countries and to coordinate national and regional development plans. In essence, the BRI intends to

- i. Improve and disperse Asia and Europe production capacity;
- ii. Expand and connect transportation routes and trade markets; and
- iii. Facilitate the transport of goods, raw materials, energy, and capital
- iv. Exchange information, people, and culture between participating countries.

China's government plans to do this through significant investment projects in rail, road, port, and aerial infrastructure systems, along with ancillary facilities such as energy pipelines, power grids, and high-speed fiber-optic cables (Ghiassy and Zhou, 2017: 5). It can be seen by examining the reports published by China, where OBOR focuses on five main objectives:

'Financial Integration'; Belt and Road Initiative is designed to increase financial and monetary cooperation while monitoring and dealing with risk and overall financial interactions. Besides, BRI could expand the exchange rate and scope.

- i. 'Policy Coordination'; meaning the BRI aims to encourage participating countries to work together and cooperate to succeed in different projects.
- ii. 'Facilities Connectivity'; building facilities related to OBOR enable decent connectivity between participating countries on the BRI, preventing obstacles (removing barriers), developing and rebuilding ports, fixing roads infrastructure, etc.
- iii. 'Cultural Exchange'; this means strengthening ties and communication between business people and is the aim of promoting deeper cultural understanding to friendly interaction between businesses and greater international cooperation.
- iv. 'Trade and Investment'; through OBOR cross-border investments, initiatives and trade are intended to be made easier and more cooperation between countries on the BRI, promoting economic cooperation (LBIA, 2017: 2).

OBOR initiative is trying to contain almost all fields of infrastructure systems and development through its two crucial and historical projects MSR and SREB.

The BRI initiative mainly focuses on political coordination, infrastructure development, economic globalization, the trend of the multipolar globe, cultural diversification, improving facilities, and advanced information technology adoption for achieving policy coordination, enhancing connectivity, and the better relationship among people, and stimulating financial integration. BRI also focuses on resource

Table 1: Major Partners and Events of OBOR

SPECIFIC POINTS	EXPLANATION
Accounted for over 63% of the world population and 30% of GDP.	Accounted for over sixty-three percent of the world's population and thirty percent of GDP.
'70+ Countries'	More than seventy countries and international organizations have signed cooperation agreements with China's government.
'6 Economic Corridors'	Set up six economic corridors: New Eurasia Land Bridge, China Pakistan, China Indochina Peninsula, China-Mongolia-Russia, China-Central Asia-West Asia, Bangladesh-China-India-Myanmar.
'8158 Contracts'	8158 Contracts were signed by Chinese enterprises and governments in 61 countries from 2016-to 2017.
'65 Countries Accounted'	Connects almost 65 countries, an estimated 4.4 billion people all over the world, and 65 Countries are Accounted for.
'3 Rounds'	The 3rd round of China's government opening up after the development of SEZ (Special Economic Zones) and accession to the World Trade Organization.
'5 Key Areas'	The five key areas of cooperation are facilities connectivity, policy coordination, trade, people-to-people ties, and financial integration.
'US\$ 953 Billion'	China's trade value with Belt and Road Initiative countries reached US\$953 billion in 2016-2017, approximately 25.7% of China's total trade of 8158.
'EXIM Bank of China'	It had started financing over 1000 different projects in 49 One Belt One Road countries in 2016-2017.

Source: Sarker et al., 2018: 623-638

allocation, economic flows, market integration, investment, and motivating nations for policy coordination through regional cooperation and encouraging comprehensive and balanced regional economic cooperation (Sarker et al., 2018: 623-638).

1.2.4. Countries Covered by the OBOR Initiative

OBOR initiative contains the continents of Europe, Asia, and Africa, linking the developed European economies at one end vibrant East Asia economic region at the other, encompassing countries with significant opportunities for economic development and cooperation between participating countries. The initiative connects approximately sixty-five countries with commercial, physical, cultural, commercial, and other links (see Fig 5 for a map of the countries). Member of OBOR countries have a combined population on the order of ‘4.4 billion, accounting for sixty percent of the world population, thirty percent of the GWP (Gross World Product), and forty percent of the world trade activities (Koboević, Ž, et al., 2018: 113-122).

Figure 5: The Map of Member Countries in the OBOR Initiative Area



Source: One Brief, 2018

The Belt and Road initiative, led by the Chinese administration, intends to develop underdeveloped western China provinces and provide access to major trade countries and regions in the Middle East and Southeast Asia. The major role of the Maritime Silk Road is also to support connectivity and economic cooperation with member countries of this route by reviving the Ancient MSR (Maritime Silk Road). Table 2 shows sub-regions and countries of OBOR (Foo et al., 2019: 2).

Table 2: Regions of the Member Countries in the OBOR Initiative

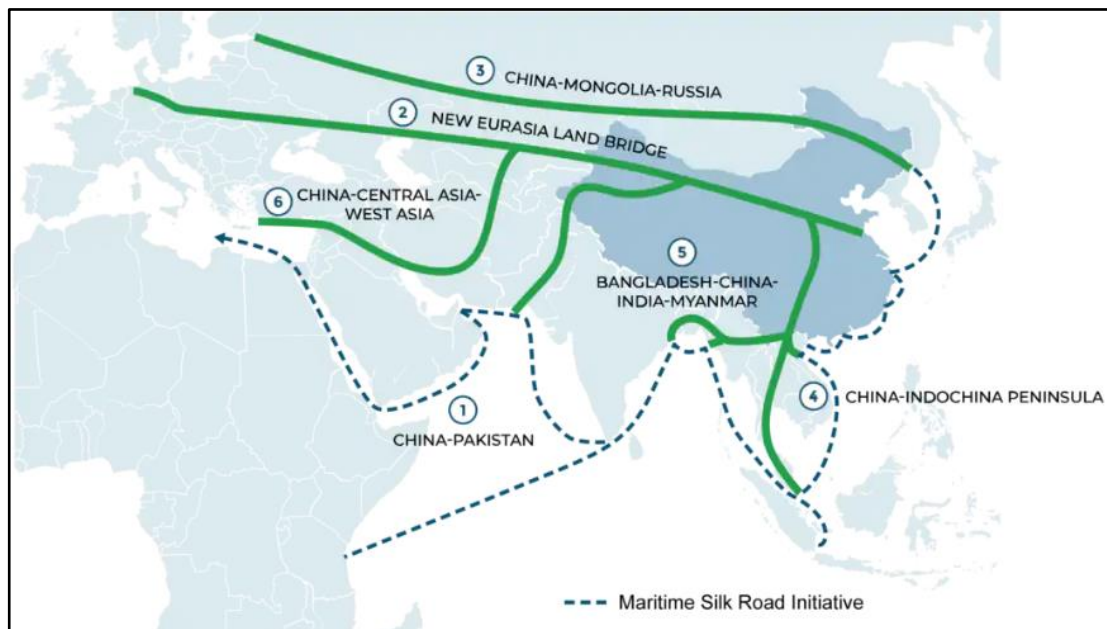
Regions	Countries along the OBOR
-West Asia and the Middle East-	Egypt, Azerbaijan, Georgia, Armenia, Israel, Jordan, Yemen, Oman, Lebanon, Kuwait, Bahrein, Qatar, Saudi Arabia, The United Arab of Emirates, Iraq, Syria, Iran, Turkey
-Central Asia-	Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan, Turkmenistan
-South Asia-	Maldives, Sri Lanka, Bhutan, Nepal, Afghanistan, Bangladesh, Pakistan India
-Mongolia and Russian Federation-	Russia, Mongolia
-the Middle East and Europe-	Moldova, Belarus, Ukraine, Latvia, Lithuania, Estonia, Albania, Bosnia and Herzegovina, Macedonia, Montenegro, Serbia, Bulgaria, Romania, Croatia, Slovenia, Hungary, Slovakia, Czech Republic, Poland
-Southeast Asia-	East Timor, Myanmar, Philippines, Brunei, Indonesia, Singapore, Malaysia, Thailand, Cambodia, Lao PDR, Vietnam
-West Asia and the Middle East-	Egypt, Azerbaijan, Georgia, Armenia, Israel, Jordan, Yemen, Oman, Lebanon, Kuwait, Bahrein, Qatar, Saudi Arabia, The United Arab of Emirates, Iraq, Syria, Iran, Turkey
-Central Asia-	Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Tajikistan, Uzbekistan, Turkmenistan

Source: Foo et al., 2019: 3

1.3. ECONOMIC CORRIDORS OF THE OBOR PROJECT

The part of the SREB has mainly three directions linking to China Europe, the Mediterranean, the Indian Ocean, and the Persian Gulf (Sauvant and Chen, 2014: 141-163). Infrastructure investment in OBOR is related to six BRI economic corridors covering a large part of the world rich in energy and resources. Economic corridors which constitute the most important parts of routes will positively contribute to the development of China by creating a new economic model for China to solve its current problems.

Figure 6: Map of One Belt One Road Economic Corridors



Source: SC, 2019.

Road and rail connections should be combined with different global ports for the functioning of BRI's maritime aspects. Figure 6 shows the broad pattern of these connections related to OBOR Corridors (OECD, 2018). The main site of the Belt and Road Initiative which constitutes the land part of the project has a long term vision for economic cooperation and connectivity of Europe-Asia and The Silk Road Economic Belt covering six developments 'economic corridors' namely (BRI, 2020):

- i. NELB economic corridor which is called the New Eurasia Land Bridge Economic Corridor links Europe and China. The major part of this BRI corridor is the international railway stage from Jiangsu to Rotterdam province in the Netherlands. After crossing the Xinjiang province, the railway line passes through Russia, Kazakhstan, Poland, and Belarus where it joins the European railway systems.
- ii. CMR's economic corridor involves China, Mongolia, and Russia. BRI economic corridor of this route will cover the development stages of Mongolia's Steppe Road and Russia's Europe-Asia Land Bridge part renovated.
- iii. CA/WA economic corridor includes China, Central Asia, and West Asia regions linking the railway network systems from Xinjiang province through West Asia and Central Asia to the Mediterranean Sea and Arabian Peninsula. This route links Kazakhstan, China, Uzbekistan, Kyrgyzstan, Turkmenistan, Tajikistan, Iran, and Turkey countries.
- iv. CICPEC economic corridor is called China-Indochina Peninsula BRI Economic corridor linking China with the five BRI countries in this corridor and extending this to Indonesia, Malaysia, and Singapore.
- v. CP economic corridor involves China and Pakistan and this route links Kashgar in Xinjiang to Gwadar Port in Pakistan.
- vi. BCIM economic corridor involves Bangladesh, China, India, and Myanmar BRI countries, which share common borders. (Ramasamy and Yeung, 2019: 1673-1694).

Table 3: BRI-Participating Economies and Economic Corridors

	Economy	Economic Corridor		Economy	Economic Corridor		Economy	Economic Corridor
1	China	B-C-I-M	25	Georgia	C-CWA	49	Afghanistan	C-P
2	Bhutan	B-C-I-M	26	Croatia	C-CWA	50	Saudi Arabia	C-P
3	Nepal	B-C-I-M	27	Bulgaria	C-CWA	51	Qatar	C-P
4	India	B-C-I-M	28	Bosnia and Herzegovina	C-CWA	52	Oman	C-P
5	Sri Lanka	B-C-I-M	29	Azerbaijan	C-CWA	53	Kuwait	C-P
6	Myanmar	B-C-I-M	30	Armenia	C-CWA	54	Bahrain	C-P
7	Bangladesh	B-C-I-M	31	Albania	C-CWA	55	Pakistan	C-P
8	Uzbekistan	C-CWA	32	Viet Nam	C-IP	56	Ukraine	NELB
9	Turkmenistan	C-CWA	33	Timor-Leste	C-IP	57	Kazakhstan	NELB
10	Turkey	C-CWA	34	Thailand	C-IP	58	Poland	NELB
11	Tajikistan	C-CWA	35	Singapore	C-IP	59	Slovenia	NELB
12	Syria	C-CWA	36	Philippines	C-IP	60	Slovak Republic	NELB
13	Serbia	C-CWA	37	Malaysia	C-IP	61	Hungary	NELB
14	Romania	C-CWA	38	Lao People's Democratic Republic	C-IP	62	Czech Republic	NELB
15	Palestine	C-CWA	39	Cambodia	C-IP	63	South Africa	MSR
16	Montenegro	C-CWA	40	Brunei Darussalam	C-IP	64	Korea	MSR
17	Moldova	C-CWA	41	Russian Federation	CM-RF	65	Panama	MSR
18	Macedonia	C-CWA	42	Mongolia	CM-RF	66	New Zealand	MSR
19	Lebanon	C-CWA	43	Lithuania	CM-RF	67	Morocco	MSR
20	Kyrgyzstan	C-CWA	44	Latvia	CM-RF	68	Maldives	MSR
21	Jordan	C-CWA	45	Estonia	CM-RF	69	Kenya	MSR
22	Israel	C-CWA	46	Belarus	CM-RF	70	Indonesia	MSR
23	Iraq	C-CWA	47	Yemen	C-P	71	Ethiopia	MSR
24	Iran	C-CWA	48	United Arab Emirates	C-P	72	Egypt	MSR

Source: OECD, 2018 (**B-C-I-M**: Bangladesh-China-India-Myanmar, **C-CWA**: China-Central West Asia, **C-IP**: China-Indochina Peninsula, **CM-RF**: China-Mongolia-Russian Federation, **C-P**: China-Pakistan, **NELB**: New Eurasian Land Bridge, **MSR**: Maritime Silk Road)

One Belt One Road Economic Corridors almost has sixty-five countries listed in COAP (China's Official Action Plan) for the Belt and Road Initiative launched in 2015 and 7 countries that have been associated with the BRI more recently (Table 3).

1.3.1. The New Eurasia Land Bridge Economic Corridor

One of the most significant parts of the OBOR project is The New Eurasia Land Bridge Economic Corridor since this corridor consists of developing a railway transportation route between China and Europe (OBOR Europe, 2020). At the center of this crucial route is a railway line linking China through Russian Federation, the Central Asia region, Eastern Europe, and Western Europe. This corridor passes through Kazakhstan-Russia-Belarus and Poland then connects the European railway systems. The major benefits of this route are helping the economies of Central Asia and Western China and reducing the time and cost of transporting products (SC, 2019).

Until this time, several intercontinental rail routes have been put into service, demonstrating the potential of the BRI (BRN, 2020). Specific Freight train routes of the NELBE economic corridor are Chongqing-Duisburg, Wuhan-Hamburg, Chengdu-Lodz, Wuhan-Lyon, and Yiwu-Madrid (OBOR Europe, 2020). The total length of this corridor is approximately 10,800 km which run through different participants and servers in more than thirty country and region (BRN, 2020).

According to the principle of 'clearance, declaration, and inspection,' the OBOR project is promoted by simplification of the customs process. This situation helps to improve trade along through economic corridor and increase the competitiveness of maritime transportation among the BRI participant countries (OBOR Europe, 2020).

The New Eurasian Land Bridge is an international transit route connecting the Atlantic and Pacific. This significant economic corridor NELB is also called the Second Eurasian Continental Bridge. The New Eurasian Land Bridge goes from Russia's eastern port, Vladivostok, through Siberia to Moscow and Western European countries. This "second" bridge, which differs from the Siberian Land Bridge, starts in China's coastal cities, Lianyungang and Rizhao, and ends in Rotterdam, Netherlands, and Antwerp, Belgium (BRN, 2020).

Figure 7: The Map of the New Eurasia Land Bridge Economic Corridor



Source: SC, 2019

1.3.2. The China-Mongolia-Russia economic corridor

The first trilateral agreement of the three countries which are part of The China-Mongolia-Russia economic corridor was signed in Dushanbe province, the capital city of Tajikistan. Before the reach of the agreement, the idea of this approach was proposed by China government in 2014. This significant economic corridor was called CMREC (China-Mongolia-Russia). Officially, this BRI economic corridor was declared the first multilateral agreement plan to become part of the OBOR project (BRN, 2020). The main purpose of this economic corridor is trade development between China and Mongolia. CMREC will help to modernize telecommunication systems, transport infrastructure, and energy networks to make the Mongolian region a hub between Russia and China (OBOREurope, 2020). The connectivity aspect of this development is critical, when the infrastructure related to CMREC economic corridor is complete, the connectivity rate will be high in the Russia, China, and Mongolia regions (Soni, 2018: 101-117). The areas envisaged for cooperation could be listed as follows:

Port construction

- i. Cultural and people-to-people exchanges
- ii. Transport infrastructure (inter-connectivity)
- iii. Customs and border inspection
- iv. Environmental protection
- v. Industrial capacity improvement and investment
- vi. Cooperation with adjacent regions

The China-Mongolia-Russia economic corridor has two substantial routes. The first route extends from Beijing-Tianjin-Hebei to Hohhot province in the inner Mongolia region and then links to Mongolia and Russia. The second route extends from Dalian-Shenyang-Changchun-Harbin and Manzhouli to Chita (BRN, 2020).

Inner Mongolia has thirteen land ports and three aviation ports. One of the most important ports of Mongolia is the Manzhouli land port, which transports cargo from Bohai Rim Region to Russia. The only railway connection between Mongolia and China is The Eranhot railway port which is also significant for international channels communicating with Europe and Asia. There are significant channels for China's energy and import-export as well as critical locations for economic trade cooperation between Mongolia and Russia regions, such as Ceke, Manzhouli, Zhuengabuqi, Erenhot, Heishantou, Ganqimaodu, and Mandulaand (Soni, 2018: 101-117).

Mongolia tries to implement a balanced policy between China and Russia to minimize conflict among its trade partner. Energy dependency is the first issue on their agenda, on the other hand, the OBOR project could be a new opportunity to work together with China, Russia, and Mongolia. Although the Mongolian government is open to abroad investment however they intend to minimize external influence. The USA wants to involve the Mongolian mining industry with Canadian, Japanese, and South Korean investors. OBOR project could open the Mongolian landlocked area for transport and trade. Russia and China take care of movements of each other in terms of involvement in the Mongolian economy. It is problem for Mongolian decision-maker about there is only two cross-border lines and one of the passage is the Russian border other one is China's border, therefore, a balanced policy for Mongolia is the primary policy to integrate the OBOR project. One of the purposes of China to create this tremendous project is energy security hence Mongolian involvement in the

initiative will be a great opportunity for China's government. China uses coal for many areas of production therefore Mongolia area could be a competition area for China and Russia however cooperation could take more benefit all sides (Pieper, 2021: 745-768).

1.3.3. The China-Central Asia-West Asia Economic Corridor

While being the BRI economic corridor, which resembles most of the ancient Silk Road, the China-Central Asia West Asia Economic Corridor is almost the most opaque one (Luft, 2016). The China-Central Asia West Asia Economic Corridor connects Arabian Peninsula and China. The vast territory it occupies follows the trajectory of the old Silk Road generally (BRN, 2020).

CCWAEC economic corridor contains the Central Asian region countries of Kyrgyzstan, Uzbekistan, Kazakhstan, Tajikistan, Afghanistan, Turkmenistan, Turkey, and Iran and starts from Xinjiang province through Alashankou, on the Kazakhstan border (China-Kazakhstan), to join the current railway network systems of the Middle East region and Central Asia (Figure 8). Ukraine through Azerbaijan, Russia, and Georgia lines could be attached to this significant economic corridor soon (Derudder et al., 2020: 11).

CCWAEC process is entered into force by different bilateral agreements between the Central Asia region and China government. A new international communication network system will link to the Central Asia region and European countries therefore China will be the center of this significant network. CCWAEC economic corridor assists to have a better connection between different regional economies and China. From Middle East countries to China, this important economic corridor helps with the construction of different energy supply and transportation infrastructures. It is supported by measures targeting increasing trade among the OBOR countries (OBOReuropa, 2020). From the perspectives of benefits of the economic corridor, various advantages of OBOR corridors could be listed as follows:

- i. Logistics improving along the Eurasian Land-Bridge Economic corridor
- ii. Oil and gas transportation through Southeast Asia
- iii. New goods network moving through the China-Mongolia-Russia corridor
- iv. Infrastructure development in Central Asia and Pakistan

Overseas and Chinese companies which are willing to take advantage of the BRI should understand the characteristics of each economic corridor (SC, 2019).

The China-Central Asia region gas pipeline is one of the largest lines in the world. This crucial line starts from Uzbekistan and Turkmenistan, runs through Southern Kazakhstan and Uzbekistan, and ends at Khorgos province on the China-Kazakhstan borderline. Another critical pipeline network will link to the Kashagan gas field and Tangiz with Shymkent province in south Kazakhstan hence the Chinese government could take benefit from one of the global largest gas deposits in the region (Luft, 2016).

Figure 8: The Map of the China-Central Asia-West Asia Economic Corridor



Source: OBOReuropa, 2020

1.3.4. The China-Indochina Peninsula Economic Corridor

The China-Indochina Peninsula Economic Corridor is a significant route for ASEAN countries (CK, 2019) which are heavily dependent on road transportation therefore this route has a significant part of the initiative for many countries in the OBOR project (Chia, 2016: 198-215). CICPEC plan of the Chinese government

related to the BRI economic corridor extends from the specific Pearl River Delta of the China region westward along the Nanchong-Guang'an Expressway and the Nannin-Guangzhou Railway (high-speed) through Pingxiang and Nanning to Singapore and Hanoi. This important land bridge connects China's critical cities with the Indochina Peninsula and crosses the center of Cambodia, Vietnam, Thailand, Laos, Malaysia, and Myanmar (Figure 9). Indochina Peninsula and China are connected by sea and land, with close cultural, people-to-people, and geographical ties. CICPEC economic corridor is one of the significant parts of the initiative linked to the BRI (CK, 2019).

At the Fifth Leaders Meeting of Sub-Regional Economic Cooperation, held in Bangkok in December 2014, Chinese Premier of State Council Minister Li Keqiang made three proposals to deepen the relations between China's government and five important countries in Indochina Peninsula. These three suggestions can be listed as follows, these were:

- i. To fundraising, create a new model for cooperation.
- ii. Urgent need for industrial cooperation projects and to jointly plan and build broad transportation network systems.
- iii. To promote coordinated and sustainable social-economic development.

The countries and regions which engaged in building infrastructure systems of routes construct nine cross-national highways along the specific Greater Mekong River linking west and east through north to south. In a building aspect of the China-Indochina Peninsula Economic Corridor, China will be the center and piggyback of the economic cooperation systems of the BRI (HKTDC, 2020).

CICPEC is almost the most active BRI economic corridor in intra-regional trade because China-ASEAN trade relations have long history until this time. Trade transactions between Thailand, Indonesia, Singapore, and Malaysia are also important with Singapore positioned as a significant hub. Trade between Myanmar, Cambodia, Vietnam, and Lao PDR is also crucial with Thailand positioned as the central hub. For Cambodia, Myanmar, and Lao PDR, trade among organization members of this economic corridor is significant, making up over fifty percent of their all trade. Trade between these economic corridor countries increases approximately a hundred and fifty percent in the past decade (Ramasamy et al., 2017: 1673-1694).

Figure 9: The Map of the China-Indochina Peninsula Economic Corridor



Source: SC, 2019

1.3.5. The China-Pakistan Economic Corridor

One of the most valuable economic corridors among the BRI corridors is the China-Pakistan Economic Corridor. This significant corridor is accepted as a flagship of China's BRI (Aneja, 2016). CPEC begins in China's Kashgar province and finishes at Gwadar (Pakistan province) and links the part of the SREB and the sea part of OBOR (BRN, 2020). The China Pakistan economic corridor covers a network of fiber optics systems for communication, ports, roads, airports, railway tracks, dams, oil and gas pipelines, and free trade zones, also this corridor goes through the west part of China to Pakistan's Gawadar Port in Balochistan principality (Figure 10). Xinjiang province in the China region has a critical position between Pakistan and China, through the Khunjerab Pass ravine in Pakistan.

Since the beginning of diplomatic relations in 1956, bilateral relations have been developing continuously between Pakistan and China. CPEC is expressed by policymakers from both sides as a process of true friendship that transcends social-economic relations into cooperation on security issues. Pakistan and China signed a free trade agreement in 2006 however bilateral commercial, transportation goods process, and trade links were prepared in 1963 (Ahmed, 2019: 400-414).

Figure 10: The Map of the China-Pakistan Economic Corridor



Source: IDR, 2016

Based on economic and social levels, The CPEC could develop the relationship between Pakistan and China swiftly. The CPEC corridor could change the current South Asia geopolitics situation by linking the China region to the Indian Ocean. India has concerned about this development because Gwadar port could open the gates of the Indian Ocean for the Chinese government. China intends to deploy naval forces in the Indian Ocean and Pakistan aims to take economical and infrastructure advantage

of this specific route, therefore, this is a win-win situation for both China and Pakistan (Asif et al, 2019: 57-67).

As mentioned before, The China Pakistan Economic Corridor is economically and strategically significant for China since China's government will have the opportunity to access Africa and the Middle East from Gwadar Port which is crucial for enabling China to access the Indian Ocean. Recently, The CPEC is a mechanism that centers on economic and trade integration between Pakistan, Afghanistan, China, and Iran therefore the Central Asian governments create the frosty political circumstance between India, Pakistan and Afghanistan, and Iran (Massod, 2015: 7).

1.3.6. Bangladesh, China, India, Myanmar Economic Corridor

The Bangladesh-China-India-Myanmar Economic corridor has a different story from the other BRI corridors. Participating countries of the corridor arranged a series of meetings related to the economic route to reach common points. Seventh meeting held in Dhaka province in 2013, all countries agree to arrange a car rally from China's Kunming province to India's Kolkata province to procure the road infrastructure and transportability of the economic corridor (Das et al., 2016:12). The car rally, which is called K2K car rally, turned into a symbol representing the road route of Bangladesh, China, India, and the Myanmar Economic Corridor. Road corridor begins from Kolkata province linking via Benapole on the Bangladesh-India border to Dhaka province and Sylhet before entering Silchar (the headquarters of Cachar district in the state of Assam in India). After the first step of the road finished route goes through Imphal province then the road corridor will arrive at Kuming through Dali, Longling, and Ruili by moving via another road of Tamu-Kalewa in the Myanmar region last part of the road crossing Lashio and Mandalay province (Figure 11) (Karim, 2018: 284).

The Bangladesh-China-India and Myanmar (BCIM) BRI economic corridor is a new version of the ancient Silk Road and the advantages of the route among other economic corridors are rich energy resources and easy trading opportunities. BCIM

Figure 11: The Map of Bangladesh, China, India, Myanmar Economic Corridor



Source: IAS, 2020

corridor countries cover almost forty percent of the world's population and almost nine percent of the world's geographical area (surface). The total GDP of Bangladesh, China, India, and Myanmar constitute approximately fifteen percent of the gross domestic product of the world. Bangladesh, China, India, and Myanmar Economic Corridor aim to help socio-economic improvement in the regions by developing:

- i. Transportation goods, trade, and investment;
- ii. Different types of energy resources;
- iii. Infrastructure and connectivity (railways, waterways, roads, and airways);
- iv. Agricultural systems

Despite the amount of the great opportunities in the corridor, regarding the size of BCIM economies, the total trade volume of Bangladesh, China, India, and Myanmar's Economic Corridor is considered to be quite low (Islam et al., 2015: 136).

1.4. FINANCING OF THE PROGRAM

Silk Road Fund (SRF) and Asian Infrastructure Investment bank (AIIB) were established by the Chinese government to provide credit for BRI participating countries also Chinese companies that help the organization of the economic corridors of the initiative. Organizing and regulating multilateral significant financial

corporations such as the Asian Infrastructure Investment Bank (AIIB) and Silk Road Fund and the Chinese National Development plan, which is, to ensure the implementation of different BRI investments, will help investment of OBOR's different types of projects. The Chinese government provides a large amount of money for the OBOR project. These financial commitments are twenty-five billion dollars for the MSR, forty billion dollars for SREB, forty billion dollars of the investment could be financed by Silk Road Fund, and Fifty billion dollars part of the OBOR investments were provided by for Asian Infrastructure Investment Bank (Ghiassy et al., 2018: 16).

The OBOR construction process is a highly complex and long-term project for all participating countries. Economic corridors need different types of infrastructure, therefore, BRI countries require a high level of cooperation with each other and also need support from the international community. There are almost no developed countries among the corridor economies, most of the participating countries are developing countries hence hard to access funds and lack of construction capability are the main problems for these underdeveloped countries. High demand from BRI countries related to the financing of the investment project and building infrastructure project, creates an opportunity for collaboration among the developed countries of the west and underdeveloped countries of the west (CLC, 2018).

BRI funding aspect can be divided into four groups: state-owned banks, international financing institutions, policy banks, and sovereign wealth funds. Banks and institutions in these four categories were examined in the table (BRN, 2019).

Chinese president Xi intended to raise the amount of capital for the development of the BRI in May 2017 therefore approximately 14 billion dollars were transferred from SRF to BRI infrastructure investment projects. China aimed to support banks and financial institutions to undertake global RMB funding businesses which are intended to grow to an amount of almost 42 billion dollars. 'Export-Import Bank' and 'China Development Bank' keep 18 billion dollars and 35 billion dollars of special credit, which will use to assist OBOR infrastructure systems and construction. BRI's financing & investment system has a crucial role in developing the economic corridors of OBOR therefore China's government invests in financial institutions and banks heavily.

Table 4: Belt and Road Initiative funding Banks and Institutions

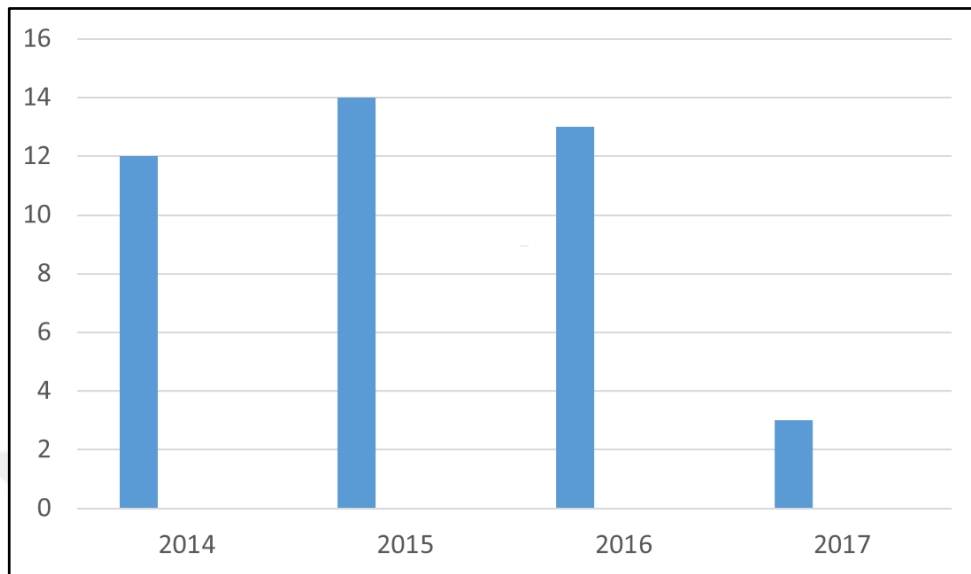
State-Owned Banks	Policy Banks	Sovereign Wealth Funds	International Financing Institutions
China Construction Bank (CCB)	China Development Bank (CDB)	China Life Insurance Company	Asian Development Bank (ADB)
Bank of China (BOC)	Export-Import Bank of China (Exim)	China Investment Corporation (CIC)	Asian Infrastructure Investment Bank (AIIB)
Industrial & Commercial Bank of China (ICBC)		The Silk Road Fund (SRF)	The World Bank Group
Export-Import Bank of China (Exim)		China National Social Security Fund (SSF)	New Development Bank (NDB)

Source: Adapted by Author BRN, 2019

The BRI financing and investment system should cover the following contents:

- i. To take attention of private capital to the BRI investments, governments should use the development of financing in the initiative as a driver
- ii. An investor should invest for a longer period in BRI;
- iii. Financial services and institutions have significant roles related to international collaboration in financing and investment hence governments should help investors to take responsibility for the critical projects.
- iv. Reasonable capital and cost are critical aspects of financing
- v. Local currencies should play an active role in the BRI project therefore government encourages investors who will use local currencies for their investment (CLC, 2018).

Figure 12: Chinese investment in BRI Countries (Non-financial outbound foreign direct investment US\$bn)

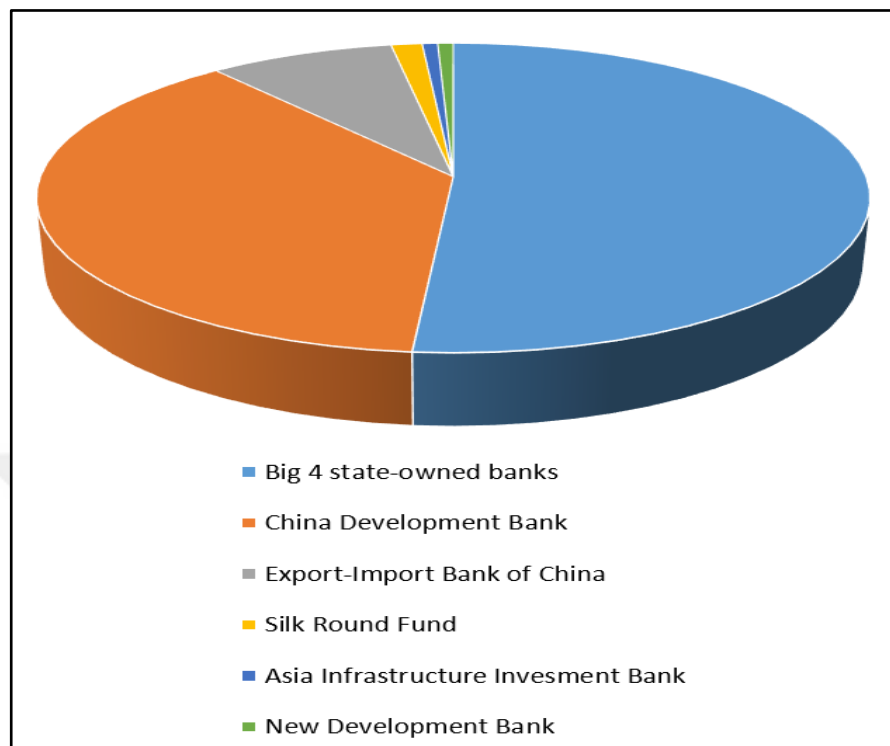


Source: Wildau and Ma, 2017

In the first years of the project, China's investment in foreign countries related to BRI was very high then it decreased considerably. Financial institution conferences, different OBOR analysis also a range of indicators shows that Chinese government investment in BRI has slowed over the last years dramatically. Outbound FDI (Foreign Direct Investment) to OBOR counties and regions decrease by approximately 10 billion dollars in 2017 by comparison to the previous year. (Figure 12).

China Development Bank is the biggest China's government state-owned non-commercial policy bank that has the most significant funding and credit sources for BRI economic corridors (Figure 13). OBOR outputs were analyzed in terms of bank credit and outstanding loans of China Development Bank; statistics show that amount of credit decreased by a billion dollars at the end of 2016. AIIB has a crucial role to invest in BRI economic corridors which is why fifty-seven participating countries (25 countries will attend this year) developing in multilateral aspects in terms of

Figure 13: Funding for BRI by Source (Outstanding loans or equity investment at end-2016 US\$bn)



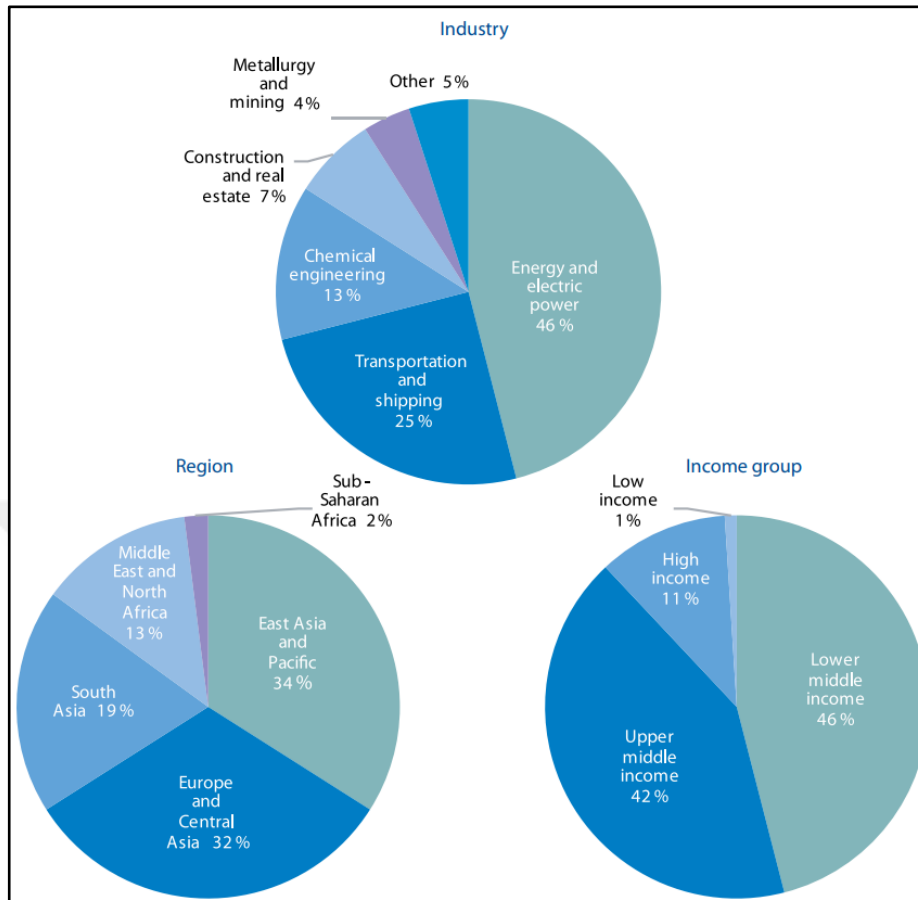
Source: Wildau and Ma, 2017

infrastructure, construction, and energy corridors investments with the help of the AIIB bank. ‘Brics bank’ is known, as a new development bank that is also important for OBOR investors, the main purpose of the BRI expand the export area of Chinese markets since the Chinese economy does not have great growth rates in the last years (Wildau and Ma, 2017).

1.4.1. Cost of the OBOR Project

Transport infrastructure is a key investment for BRI countries therefore 144 billion dollars have been spent on this critical aspect of the project. Figure 14 shows that the energy sector has the highest rate of investment hence transport and energy industries comprise approximately seventy-one percent of the total cost of the BRI.

Figure 14: OBOR Investments in Corridor Economies (Percentage shares of \$575 billion)



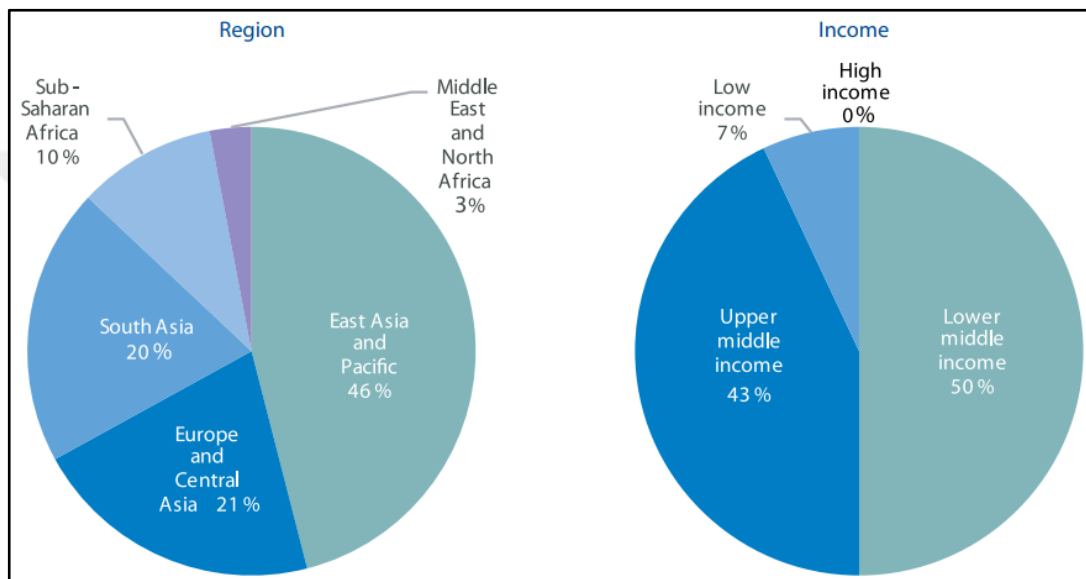
Source: Bandiera and Tsiropoulos 2019: 6

Economic corridors of the OBOR project have a different share in terms of investment cost in Europe and Central Asia and East Asia-Pacific regions, comprising 66 percent of total cost in BRI. The Sub-Saharan Africa region has almost no significant BRI project therefore this economic corridor's investment cost is too low. Upper middle-income countries and lower-middle-income countries fund approximately ninety percent of BRI projects, on the other hand, high-income countries and low-income countries finance in a very limited area (Figure 13).

BRI transport infrastructure investment projects are significant for seventy countries that are participating in the OBOR project therefore 368 billion dollars have been spent on transport infrastructure systems (Soyres et al., 2019: 152). Key BRI transport infrastructure investment regions that are part of the initiative are East Asia-Pacific, Europe-Central Asia, and South Asia, on the other hand, the Sub-Saharan region and Middle East-North Africa have the lowest investment rate among the BRI

investment area (Figure 15). East Asia and the Pacific region are a driver for transport infrastructure investment hence lower middle income and upper-middle-income countries fund more than low-income countries and high-income countries. Figure 15 clearly shows that there are no high-income countries for credit to invest in the transport infrastructure of the OBOR economic corridors (BRE, 2019).

Figure 15: Bottom-up Costs of BRI Transport Infrastructure Investments (Percentage shares of US\$368 billion)

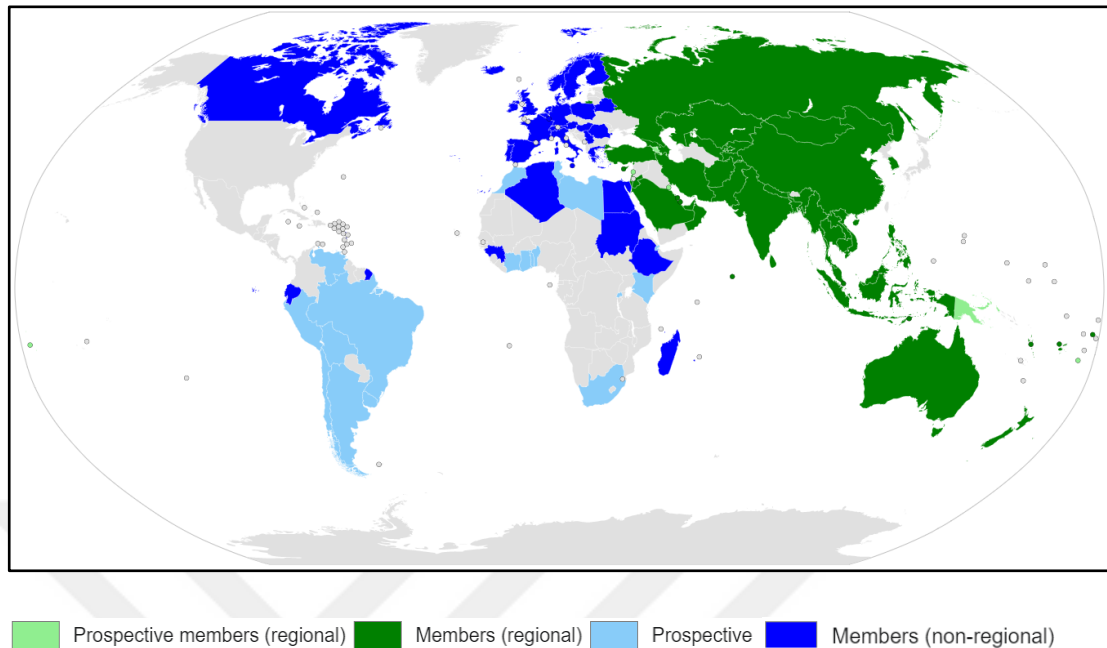


Source: Bandiera and Tsiropoulos 2019: 6

1.4.2. The Asian Infrastructure Investment Bank

The Asian Infrastructure Investment Bank is a multilateral development bank that has a very critical role in the Asia-Pacific region therefore many countries desire the part of this institution. China's government propose to establish AIIB in 2013 however, the bank was launched in 2014. The main purpose of the Asian Infrastructure Investment Bank is to support investment and building infrastructure in Asia Pacific countries hence AIIB has eighty-two participating countries as well as twenty prospective members from all around the world (Figure 16). The bank's prestige is very well known thus the top three rating agencies in the world gave the highest credit ratings to AIIB among important banks in the world. Ten member states held fifty percent of the initial subscriptions of the ACS (Authorized-Capital-Stock) in 2015.

Figure 16: The Map of AIIB Members

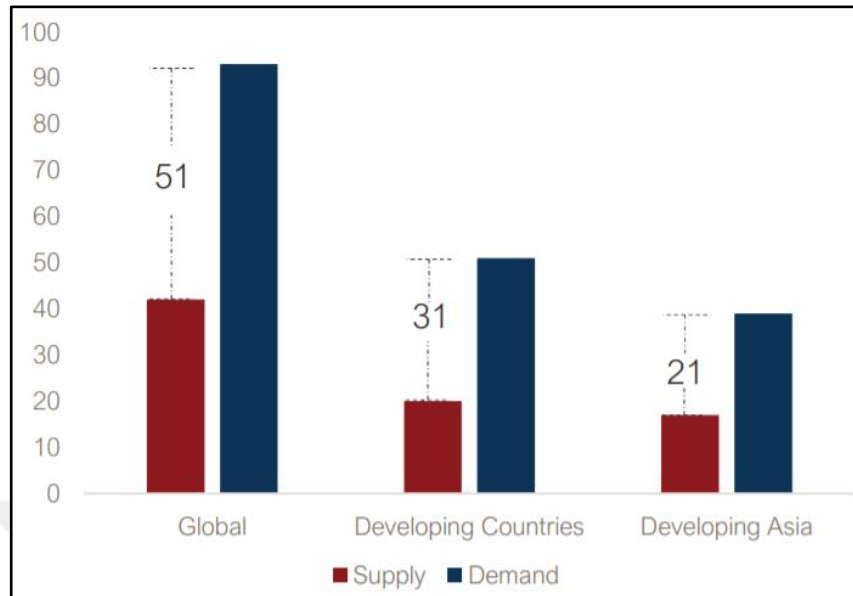


Source: WC, 2020

AIIB's starting capital was approximately 100 billion dollars, equivalent to fifty percent of the World Bank and two-thirds of the capital of ADB (Asian Development Bank). The United Nations has targeted the establishment of The Asian Infrastructure Investment Bank as a potential for 'increasing funding for sustainable development' and 'ensuring the world economic governance' (AIIB, 2015). OBOR participants are developing countries and most of the OBOR countries are located in the Asia region hence the gap in infrastructure supply-demand indicates that developing Asia countries could meet their infrastructure demand more than average world developing countries (Figure 17). AIIB will fund these countries to help their development stage (Unescap, 2019).

The AIIB and OBOR project has positioned China's government at the center of economic corridors and geopolitics in the area which is effect china's trade activities directly, on other hand, another significant aspect of the OBOR is strengthening China's economic relations with Asian countries that is why AIIB is important for collaboration in the region with the help of the Cühinese government. AIIB intends to accelerate and facilitate infrastructure systems development in the BRI economic corridors by ensuring technical services and capital loans. The AIIB will be a driver

Figure 17: Infrastructure Demand and Supply by Region 2015-2030, US\$ trillion.



Source: UNESCAP, 2019

for China's BRI, therefore, AIIB and BRI intend to change the political and economic perspective of the Asia region which is the most economically vibrant and dynamic area of the MSR (Yu, 2017: 353-368). China established the AIIB bank since China's government will be a multilateral lender for BRI economic corridors and MSR hence China could de-politicize in the region as well as boost its prestige in the area. In brief, AIIB will be the flagship of the OBOR projects.

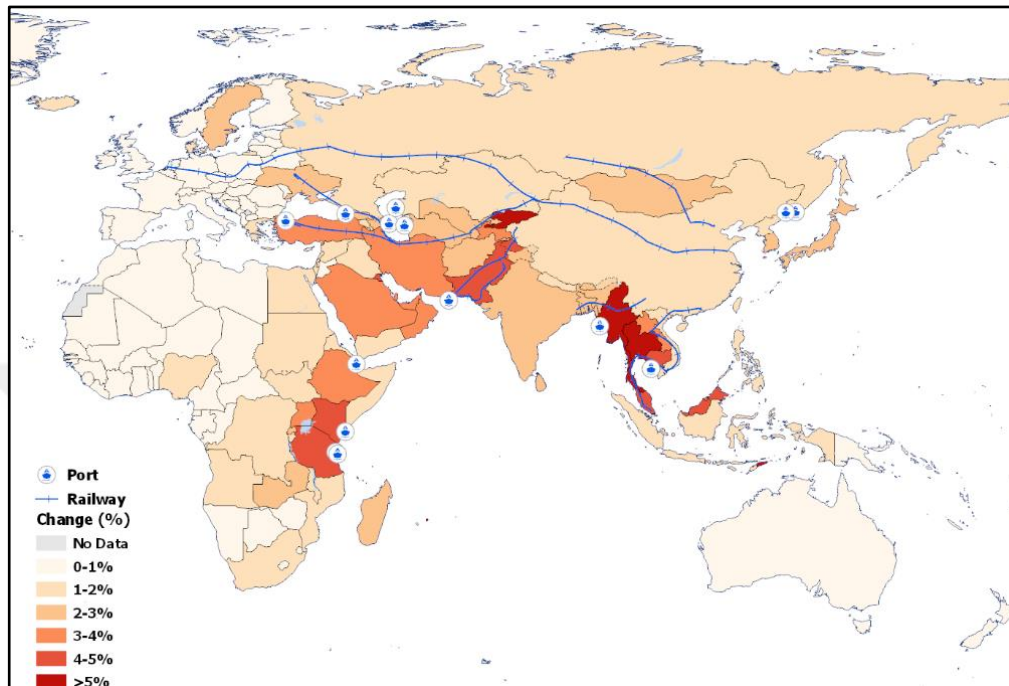
The AIIB will have to meet the standards of Multilateral Development Bank standards such as procurement, transparency, and safeguards. AIIB will be under transnational scrutiny and AIIB shareholders have to build the bank initially focusing on co-financing with other Multilateral Development Bank standards cautiously. (Callaghan and Hubbard, 2016: 116-139).

1.4.3. Quantifying the BRI's impact on trade costs

Trade cost and shipping time have a positive correlation with each other hence infrastructure improvements will reduce trade costs in long term. BRI corridor economies could decrease aggregate trade costs for participating countries, based on the effect of transportation infrastructure system projects. BRI will decrease

approximately 2.8 percent between participating countries and the rest of the world's trade costs will decrease 3.5 percent with the help of the BRI project.

Figure 18: Average Decrease of Trade Costs per Country



Source: WBB, 2018

The reductions in different aspects of trade costs vary from country to country, For instance, South Asia and East Asia-Pacific regions have the biggest cost reductions (Figure 18) also China-Central Asia-West Asia economic corridor trade costs could decrease by approximately 1-2 percent when BRI corridors infrastructure systems have been finished (WBB, 2018).

1.5. ADVANTAGES AND POTENTIAL DRAWBACKS OF THE PROJECT

Since the OBOR project is a worldwide project, the advantages, and disadvantages of the project will affect many regions and countries. The pros and cons aspects of the project could be mentioned as follows briefly. Potential benefits of the BRI project are:

- i. Create employment chances for unemployed people that citizens of the BRI countries

- ii. To divert national and regional investment projects to longer-term developments for people's welfare, as opposed to money-wasting projects such as worst military investments.
- iii. Infrastructure development will be a key aspect of BRI therefore national and regional economies will get positive effects via improvement of their infrastructure systems. Energy and Transportation infrastructures will be the most effective part of the initiative in helping a broad base of different trade and economic activities.
- iv. Creating opportunities to develop new cross-border cooperation
- v. Create new tourism and trade opportunities for both investors and consumers.
- vi. New alternative and different routes will have been established for transportation goods.
- vii. Potential pitfalls of the BRI project are:
- viii. Funding could be a real problem for OBOR countries since the political conflict of interest could arise due to jealousy over the perceived unfair distribution of financing.
- ix. Banks and financial institutions may have difficulty in financing as the number of BRI projects increases over time.
- x. Many BRI projects are long-term investment projects hence host countries could not take advantage of these projects in short term.
- xi. The Chinese government may have trouble managing all investment projects related to the BRI initiative therefore some of the BRI country's significant projects could take a long time to finish.
- xii. Terrorist groups may target critical investments related to the BRI project
- xiii. BRI countries may not care impacts of environmental pollution and awareness since completing investment has been the first goal of BRI countries.
- xiv. US, EU, and other major influential countries in the region may see as a threat to China's enormous project since China will affect the region both economically and politically (Wu, 2018).

1.5.1. The positive aspects

MSR and SREB projects could change the balance of power between BRI countries also Non-BRI countries, on the other hand, the BRI project has the potential to assist in improvements of the corridor economies of many participants which have many difficulties in ensuring welfare to their cities and citizens (Wang, 2015: 96).

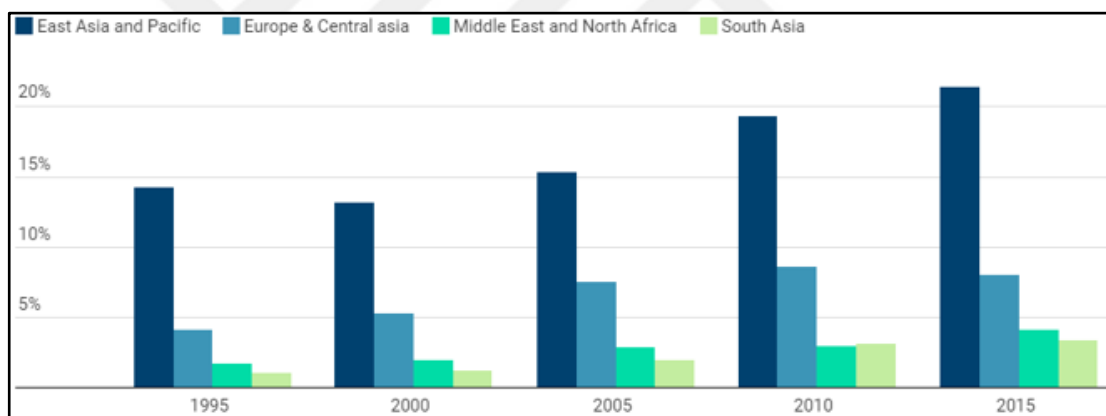
Improving connectivity is one of the most critical improvements related to the BRI. Transportation goods from China to Europe takes approximately thirty days by seaways. The alternative transportation route is a railway, train transportation could cut shipping time in half but cost much more than seaway transportation. The shipper should pick a tradeoff between saving money and saving time therefore from the perspective of a consumer, each minute delay in getting goods from the producer to the final point could change customer behavior toward the producer and the consumer can buy another substitute good. BRI has the potential to create many alternative routes from the producer to the consumer along the route of the project. (WBB a, 2018).

There are many enormous infrastructure projects related to BRI hence transportation projects will have a great impact on the potential financial markets of BRI. Chinese government establishes banks and financial institutions for a new investment project in BRI therefore a great amount of money needed will inject new capital for development in the Asia region. Especially poor and developing countries will take advantage of new gigantic infrastructure projects (Wolff, 2016: 10). BRI project could be an opportunity to create new jobs for BRI country's citizens also OBOR Industrial development creates an opportunity to live in good conditions for people (Wang, 2015: 96).

Improving transport infrastructure, network and the capacity of railways will be three significant development in the BRI economic corridors since they could lead to improved growth, increased investment, and more cross-border trade in BRI regions. Regional institutions and cooperation should focus more on infrastructure improvements of BRI transportation (WBB a, 2018). On the other hand, BRI countries in the Asia region are satisfied with this economic development since most of the countries in the region prefer China's intervention in European Union, Russia, or the USA (Pantucci 2015: 2).

Belt and Road corridor economies are progressively integrated with Non-BRI countries and between each other therefore Belt and Road corridor countries have a great share in the global exports and these countries have almost doubled in global export rate in the last two-three decades (Figure 19). Trade activities of many Belt and Road Initiative corridor economies such as Nepal, Laos, Afghanistan, and Tajikistan have low export rates due to corruption, weak policies, inadequate infrastructure systems, and a bad management approach therefore OBOR project could be a success story for these undeveloped countries. The project will boost the international commerce of countries, which have no transport and trade connection with the rest of the world. (WBB a, 2018). Capital market reforms will help the improvement of BRI countries also domestic and foreign investors will be interested in more BRI economic corridor projects in the next decade (Wolff, 2016: 4).

Figure 19: Share of BRI Economies in Global Exports



Source: WBB a, 2018

OBOR project has a gigantic size and comprehensive scope which is why initiative corridor economies comprise approximately thirty-three percent of global Gross Domestic Product and sixty-six percent of the world population. Some of the Belt and Road Initiative corridor countries' poorness percentages rate of the population living under the poorness line (almost two dollars) are still high – twenty-three percent in Uzbekistan, twenty-five percent in Kenya, twenty-one percent in Laos, and twenty-three percent in Djibouti (WBB a, 2018). BRI economic corridor involves many poor regions however according to experts of the BRI project express that China's colossal economic growth will give a positive effect on many BRI countries (Wang, 2015). If

BRI infrastructure and construction projects are successful, these projects ensure to benefit a great number of BRI citizens, which live under the poverty rate (WBB a, 2018). China's government's financial reforms support BRI countries to further open their country's capital markets to investors that are from BRI and Non-BRI countries. This attempt will supply diverse bond markets and more liquid to ensure the allocation of capital (Wolff, 2016: 2).

State companies will be key factors for BRI infrastructure projects however, private companies give importance to these tremendous projects to take a share of the projects. Building different materials producers, infrastructure systems companies, and construction machinery companies could be part of the initiative. BRI investments intend to remove transport bottlenecks, reestablish unconnected roads and increase the connectivity rate of Belt and Road corridor countries with the help of all companies related to projects (Chin et al, 2015: 9).

1.5.2. The obstacles to the realization of the project

OBOR project has many positive effects for member countries on the other hand negative effects of OBOR for economic corridor countries and the rest of the world should be spoken about. This significant project intends to change the balance of world power therefore many world powers in the region and out of the region have a preconception about BRI. From the perspective of India and Russia, there is a risk related to the instability of the region that is located through Belt and Road economic corridors (Tweed, 2019). China's government intends to make cooperate with every country in the region hence May 2015, Xi and Putin during a meeting in Moscow agree on coordinating and cooperating development of OBOR. This agreement shows that tension between Russia and China has reduced at the diplomacy level (Clemente, 2014: 12). India is one of the biggest power in the region and the Indian government has an opposing view about BRI. Some countries in the region have security concerns related to new infrastructure and investment projects in BRI economic corridors. India could create impediments to establishing the 21st Century Maritime Silk Road because of security issues. For instance, China's government's ambition, which is a focus, on

its economic and military presence in the Indian Ocean, is known by every authority in the region (Brewster, 2015).

There is potential corruption and social and environmental risk related to any tremendous infrastructure and construction project. Environmental degradation, biodiversity loss, and elite capture are examples of these kinds of risks. Many underdeveloped countries are participating in BRI Initiative therefore these risks could come true in long term (Vox a, 2018).

Figure 20: Road and Belt Backlash



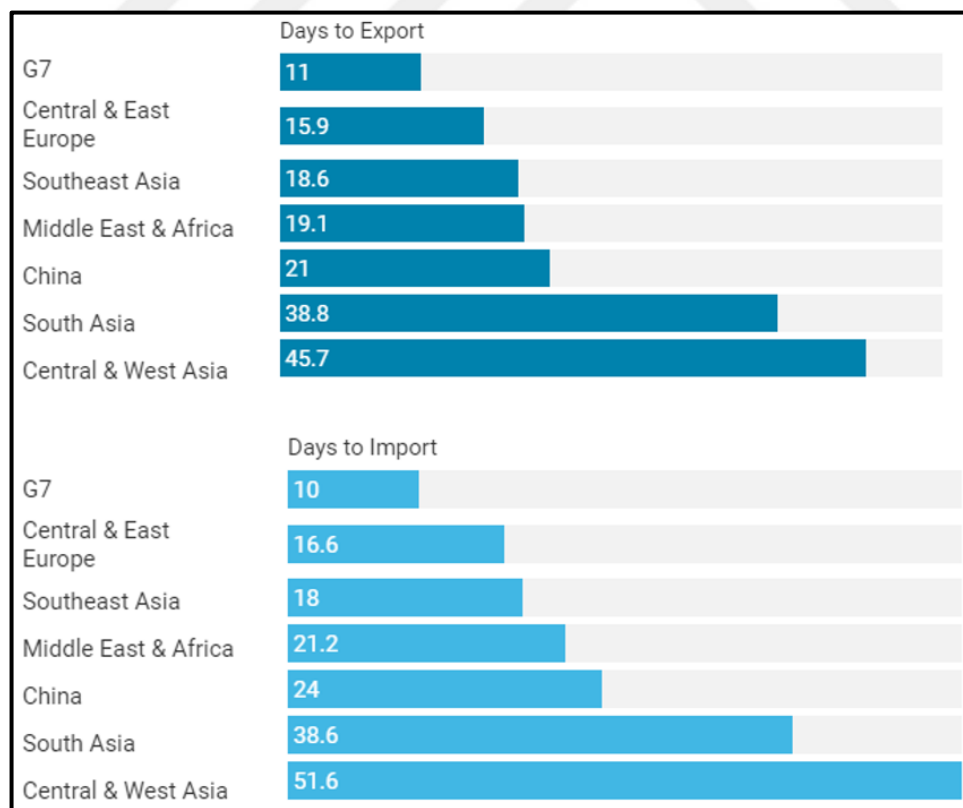
Source: Tweed, 2019

OBOR project has many positive aspects however BRI could leave some economic corridor countries saddled with debt such as Sri Lanka was enforced to sell the tenancy of a newly developed seaport to pay the eight-billion-dollar debt. BRI participating countries should be aware of the debt trap of construction and infrastructure project since Chinese companies could buy tenancy of their enormous projects. Malaysia canceled its BRI pipeline project, which is worth three billion

dollars, and the Malaysian government renegotiated a railway project to reduce costs from 33 billion dollars to 11 billion dollars. Maldives has the same problem as any other country that is in the debt trap of BRI projects. Myanmar's government also reduced its port construction debt from \$7.5 billion to \$1.3 billion (Figure 21) (Tweed, 2019).

One of the significant obstacles to the BRI is the policy barrier. On average, restrictions on FDI, slow customs procedures, and delays crossing borders tend to be more in the Belt and Road economic corridor participants compared to other countries. DBI demonstrates that in the Central Asia region, for instance, to import goods from BRI countries to any other countries which have an average distance, you should wait approximately fifty days (Figure 20). The same procedure in G7 countries takes up to ten days hence OBOR countries have more complicating and bureaucratic Foreign Direct Investment regulations than developed countries such as G7 countries and high-income OECD countries (WBB a, 2018).

Figure 21: Import and Export transit times for G7 countries and BRI countries



Source: WBB a, 2018

Macro problems and risks always exist in international transportation in addition enormous OBOR projects repayment credit rates cause trouble for participating countries. Several BRI countries may exceed a sustainable level of debt. For instance, one of the significant BRI projects the Kunming-Singapore railway cost approximately six billion dollars, which is forty percent of the Gross Domestic Product of Lao PDR therefore, expenditure on the construction and infrastructure systems of it related to the BRI could damage its economy more than its benefit (Vox a, 2018). Funding BRI projects are a necessity for every Belt and Road country hence China established The Asian Infrastructure Investment Bank and Silk Road fund. Foreign currencies are another obstacle for BRI countries since funding for developing infrastructure systems as well as for enormous construction projects in the structure of OBOR is the limit to the DF (debt financing). Many Belt and Road Initiative corridor economies countries have reached or exceeded their limits of indebtedness (Wolff, 2016: 11).

OBOR projects will raise debt to Gross Domestic Product rates for many OBOR initiative participants therefore these countries will be in a high-risk group in terms of debt ratio. BRI countries should balance debt levels to prevent vulnerabilities (Vox a, 2018). BRI countries and non-BRI countries' investors should care about country risk in the economic corridors of the project since funding could be very difficult for enormous BRI construction and infrastructure projects. Every project has a limit in terms of finance therefore, BRI investment could confront the limits of debt finance (Wolff, 2016: 11). China's government and Chinese investors heavily invest in the United States and European countries before the OBOR project hence Chinese companies do not have enough experience to invest in the Middle East and Asia region. Belt and Road economic corridor countries are high-risk countries, and the capacity of Chinese initiatives could not overcome high-risk profiles in the region (Wilson, 2015). Africa is one of the favorite destinations for the Chinese government and they have some trouble with African countries too (Hodzi, 2012).

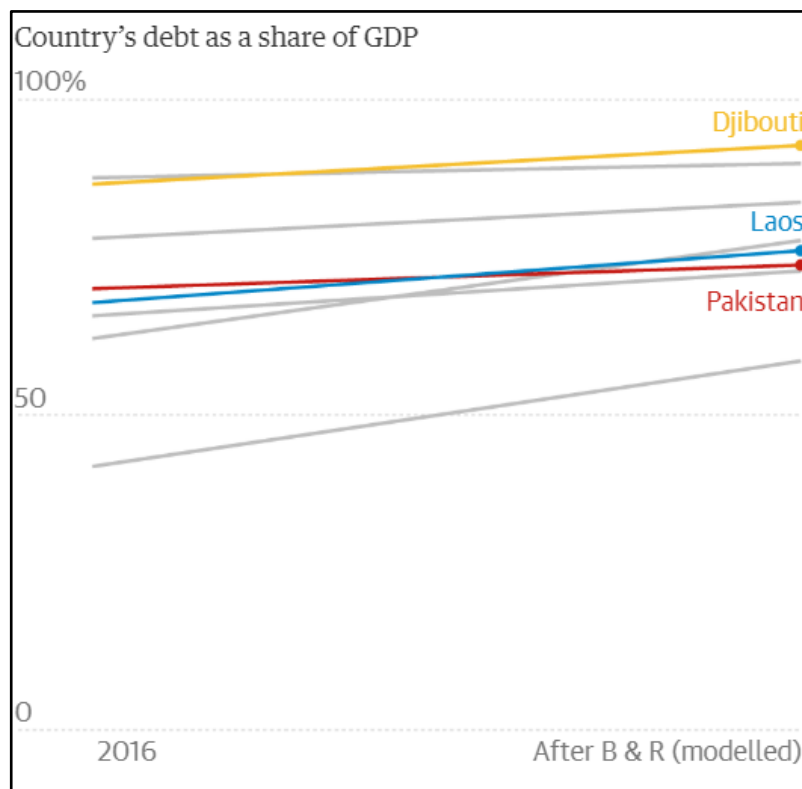
The world's most powerful countries reject this fantastic project because they don't want to strong China, (Gabuev, 2015) apart from this there are many problems related to the BRI such as commercial risks, social-political risks, corruption, bad governance, inefficiency, and lack of stable transparent laws of the BRI countries

(Toktomushev, 2015: 77). China must analyze every different situation related to the BRI to overcome difficulties. China's government should understand the reason for the problems therefore one of the key steps to be successful in the BRI is understanding all economic corridor countries because a close relationship among the Belt and Road Initiative will help to achieve the success story of OBOR (Shi, 2015).

1.5.2.1. Debt trap diplomacy for Belt and Road Initiative countries

BRI countries could not pay their debt to China such as Pakistan, Malaysia, and Sri Lanka on the other hand many BRI countries try to restructure their loan payments because debt trap diplomacy of China's government. Pakistan and Malaysia intend to make a new deal to reduce their credit rate. Sri Lanka is one of the great examples of debt-trap diplomacy of China since their port has been leased to China's private company for ninety-nine years after struggling to make repayments. Center for Global

Figure 22: Country's Debt as a share of GDP

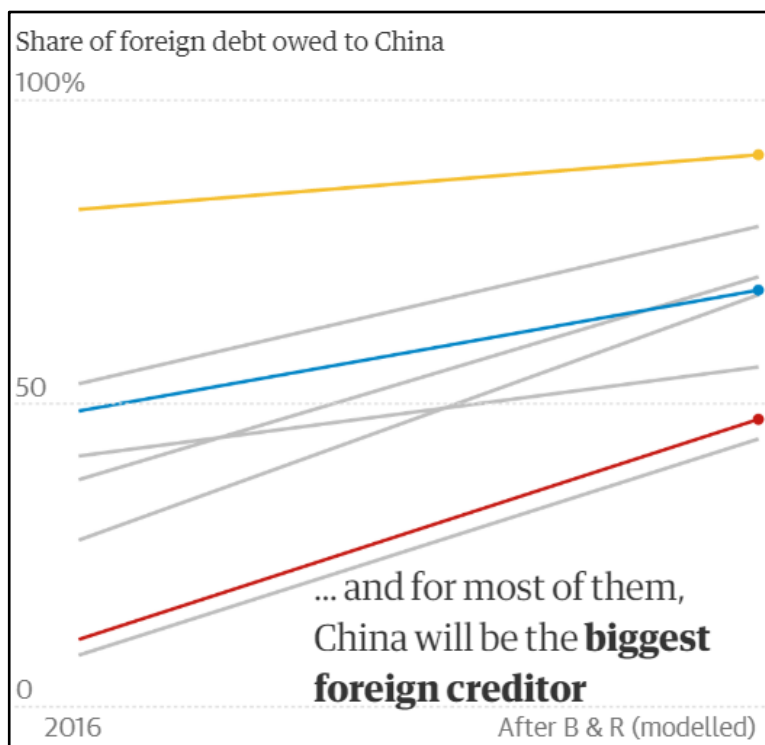


Source: Kuo and Kommenda, 2018

Development report shows that more than eight OBOR countries are at high risk of not being able to repay their credit. Debt percentages of Djibouti, Laos, and Pakistan are more than fifty percent of the share of GDP (figure 21). More than fifty percent of this debt is owed to China also China will be the main foreign creditor for these BRI countries (Figure22).

Overseas ‘debt-trap diplomacy’ of China will affect many BRI and non-BRI countries. One of the key purposes of this policy is strategic concession because China’s government leases a big amount of money for significant infrastructure projects such as ports and airports investment then they demand tenancy of these logistic hubs. China’s major subject related to the OBOR project is to control the Belt and Road economic corridor areas to be the strongest world power. For instance, China’s government wrote off an unpredicted debt owed by the Tajikistan region in exchange for approximately 1200 km of the disputed area. Laos, Mongolia, Djibouti, Pakistan, Kyrgyzstan, Maldives, and Montenegro are among the poorest countries in their respective regions and will owe more than half of all their foreign debt to China’s government. (Figure 23) (Kuo and Kommenda, 2018)

Figure 23: Share of Foreign Debt Owed to China



Source: Kuo and Kommenda, 2018

1.6. EXPLORING CHINA'S MOTIVATIONS

Overcapacity was one of the crucial problems for China's government before 2013 therefore, they were looking for solutions to help the economic and industrial problems of China which is why they tried to implement a new economic packet to solve the overcapacity problem in 2008. The problem had not been solved effectively however these changes helped industrial and economic growth through the world's 2009 financial crisis. The first idea of OBOR can be followed back to 2012 since China's experts analyzed USA Marshall Plan to overcome this important problem. This project called the new USA Marshall Plan or Chinese government Marshall Plan that will help global construction and infrastructure initiatives, aim to increase integration among the BRI countries to help domestic problems of China. These investment projects such as land port, highway, railway, seaport, and airport initiatives help boost the global economy and take a lead in infrastructure systems investment in underdeveloped BRI participants while providing a solution to China's government's domestic overcapacity problem. Xi Jinping (the new party chief) listed the overcapacity issue as the top-level priority for industrial and economic restructuring at the Central Economic Work Conference in 2012 then President Xi declare his enormous One Belt One Road project in 2013. The most significant motivation of the OBOR Initiative is to help domestic problems of China and global welfare (He, 2020: 139-169).

China's government has many motivations to establish OBOR however, the significant ones can be listed as follows:

- i. Development of underdeveloped OBOR countries to ensure border security of China.
- ii. Creating an international security network to strengthen the cultural soft power and comprehensive national power of China's government.
- iii. Ensure national economic security
- iv. Prevent the effect of three evils (terrorism, separatism, and religious extremism) within and abroad through wealth redistribution and economic development
- v. Helping to block USA expansionist policy and

vi. Ensure energy security of China via alternative transporting routes.

Many security purposes of China's government have been declared in diplomatic forums, international security panels, and OBOR conferences (Ghiasi and Zhou, 2017: 8).

1.6.1. Internal Motivations

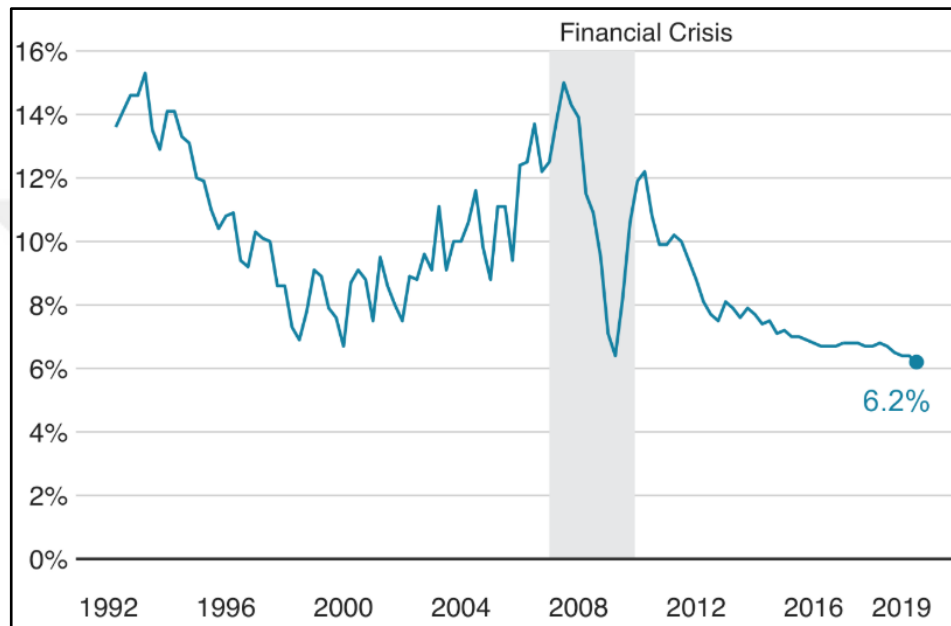
Chinese economy encounters many different problems such as low growth rate and overcapacity problems hence Chinese government tries to perform radical economic reforms. BRI will help the domestic requirement of China's government since it will ensure the integration of the domestic market into the global economy with the economic corridors of BRI (Clarke, 2017: 71-79). Increasing the amount of investment, the volume of transportation, and the connectivity rate among the BRI economic corridor countries via Asia and Europe will also render participants of the project more dependent on the Chinese politics and economy, enhancing China's government's economic supremacy on BRI and Non-BRI countries (Team, 2017).

This enormous initiative is a significant attempt by China's government to ensure the economic growth of China, by creating new organizations of international economic cooperation with BRI countries (Huang, 2016: 314-321). China was successful in terms of economic development since 1980 however one of the major advantages of China that are called 'low labor cost' has disappeared recently (Clarke, 2017: 71-79). Müller-Markus (2016) express that not only low economic growth rates (Figure 24) cause domestic pressure on China but also social-environmental deficiencies and redundancies in the industrial market, the housing bubble, and state companies that have low-profit margins will affect negatively. China needs effective economic reforms to overcome substantial problems such as the middle-income trap too, therefore, BRI is a key project for the Chinese government (Clarke, 2017: 71-79).

One of the significant internal motivations behind the BRI is USA pressure on China's economy (CFR,2020) therefore China's President Xi declare BRI to reach new trade markets for its domestic good and service (MarkusMüller, 2016). China has different economic and geopolitical motivations behind the OBOR initiative. From the perspective of China's government, their purpose is to ensure China's citizen's welfare

also this enormous initiative will create an opportunity to find a job for their citizens all over the world (CFR, 2020). State-owned enterprises of China try to hire workers and expand their factories such as construction, steel, and cement companies with the effect of the BRI. These economic developments support serve the booming domestic economy of China (Team, 2017).

Figure 24: Chinese Economic Growth Slows



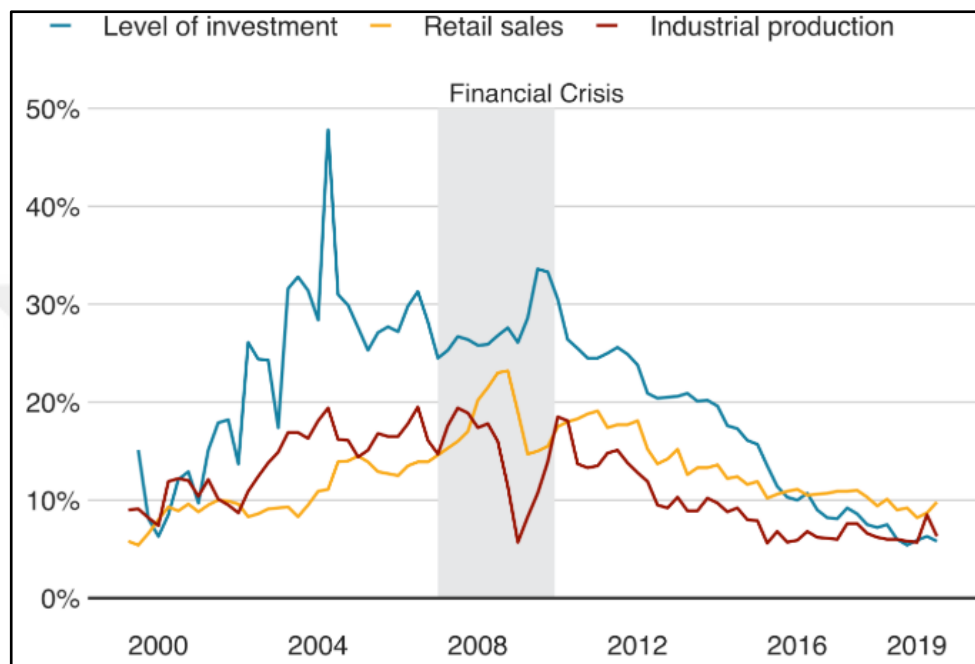
Source: China's National Bureau of Statistics, 2020

The conflict between China and the USA affects China's economic development and various sectors in China negatively. Figure 25 shows that retail sales, industrial production, and level of investment have a downward rate due to the block of the USA in almost every sector in China. Many other factors could directly affect the down rate of production, sales, and investment, however, USA pressure is one of the significant factors which causes trouble in the Chinese economy (Walker, 2019).

China's government intends to support Chinese financial institutions and banks such as the Export-Import Bank of China (Exim bank), The Asian Infrastructure Investment Bank, and the Chinese Development bank. These significant banks will take advantage of low borrowing costs and Chinese companies, which work for BRI will get benefit from a low-interest rate since big capital banks could lend from the People Bank of China to the investor of BRI as a government authority. The

empowerment of Chinese financial institutions and banks is another internal motivation of the BRI. Not only they will be a great lender of BRI economic corridors but also they will get political gain from the project.

Figure 25: Percentage Growth of the Various Sector in China



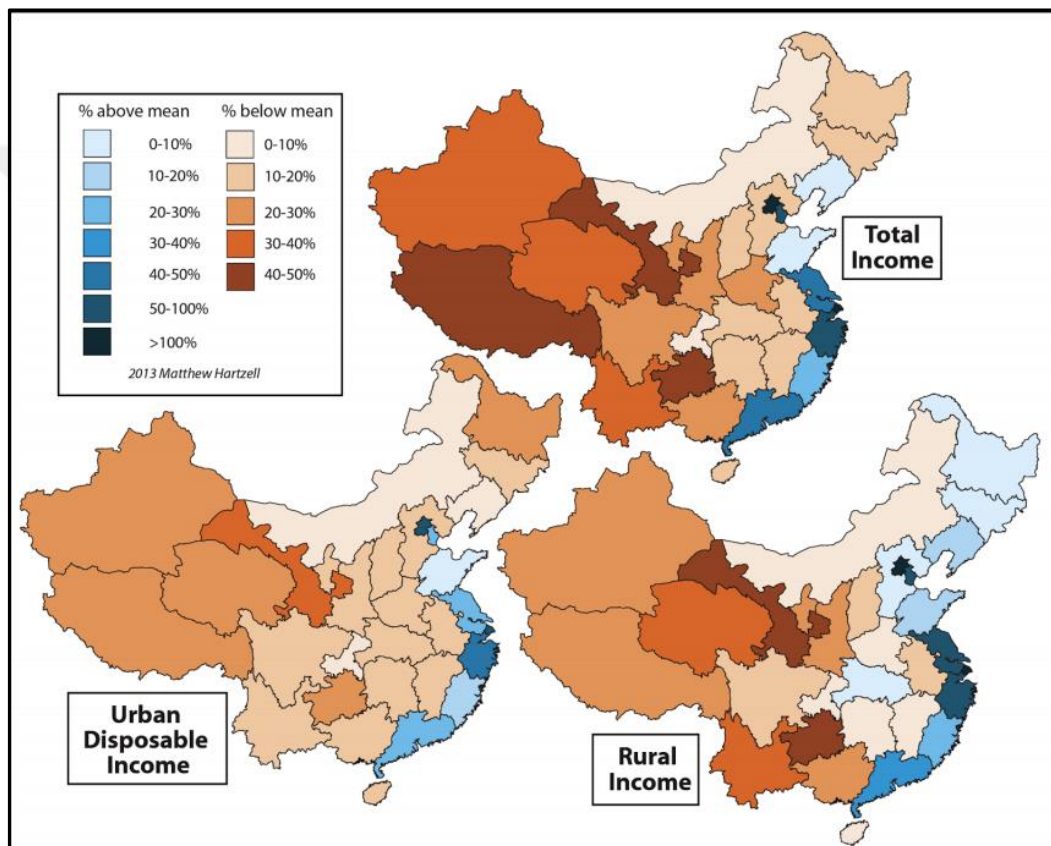
Source: China's National Bureau of Statistics, 2020

According to the Chinese officials, nation policies related to BRI, the presentation of the Renminbi (RMB) will have been realized as a global currency in the world market. Reduction of shipping time and transport cost will have been coming true after the project is completely established (Team, 2017). Reducing the transportation cost and shipping time of Chinese goods will support offset the increasing production expenditure of Chinese companies (Casarini, 2015: 15-40).

Infrastructure projects of the BRI will increase the connectivity rate among the economic corridor countries and also help to diminish shipping times and costs. Not only it will help economically but also these projects will increase the interaction between participant countries (Team, 2017). China's government intends to overcome its overcapacity problem with the new infrastructure project because BRI will ensure demand for goods of Chinese companies such as cement, iron, steel, glass, and aluminum. After all, modernization and domestic urbanization projects could not help

consume the goods of Chinese industrial companies completely. (Grieger, 2016: 9). On the other hand, apart from being faster, cheaper, or better; OBOR provides a secure environment for energy transportation among the member countries. Supplying energy is one of the crucial factors to establish an OBOR project therefore China intends to create alternative routes through the economic corridors of BRI for transportation energy (RT, 2015).

Figure 26: Distribution of Income in China



Source: OECD, 2018

Ratfrey (2017) points out there are many different regions in the China and every region has different cultures, demographics, and economies. The level of development differs from region to region and the most developed part of China in the coastal areas (Figure 25). BRI could create job opportunities for rural and undeveloped areas therefore China's government is determined to ensure integration between the west and east of China. Belt and Road economic corridor will try to spread economic growth and wealth to these undeveloped areas. Infrastructure investment of BRI will

help the connectivity rate of these different regions positively also Special Economic Zones of the BRI could stop migration from the east part of the region to the west part (Ratfrey, 2017). The income distribution of China shows that many different people have to live in low-income areas all over China (Figure 26) (Schiavenza, 2013). The development of the BRI not only helps foreign participant countries but also will help the domestic development of China. Three evils defined by the Chinese government are ‘terrorism, separatism, and religious extremism will have been prevented with the positive effect of the BRI Initiative (Grieger, 2016: 9).

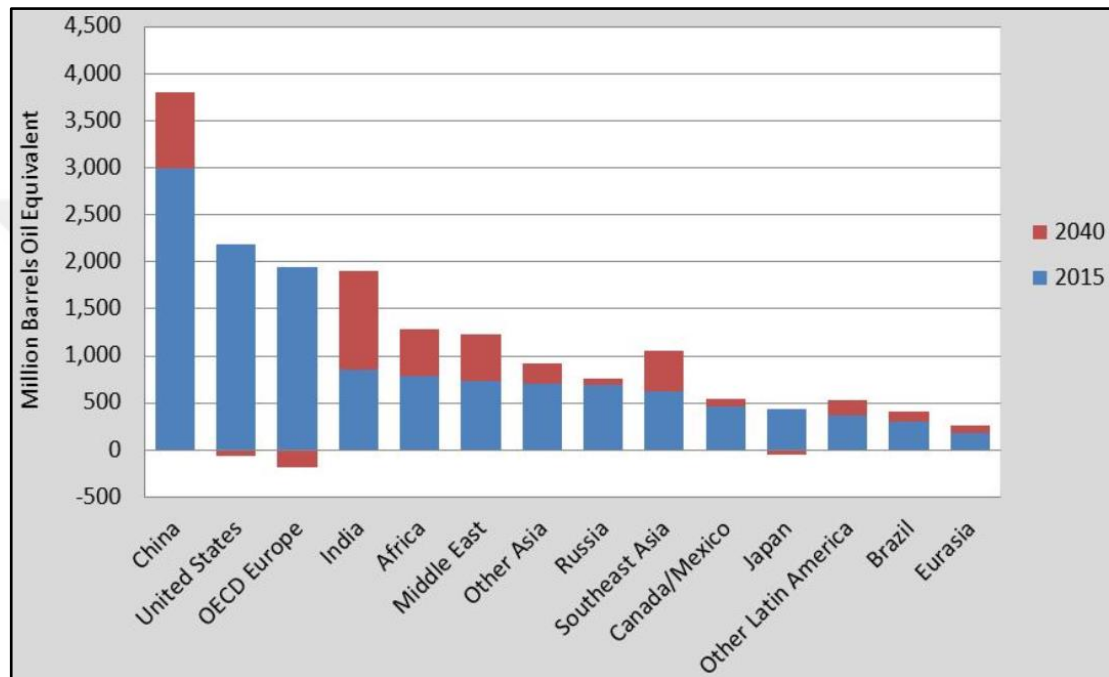
1.6.2. External motivations

The main purposes of China’s government are reach to different export markets and gain access to high technology to take the demand for infrastructure systems since 1970. Several economic reform regulations have been implemented to be the leader of the region by Chinese authorities. China aims to strengthen integration between Europe and Asia which is why they try to create the OBOR project. Opening strategically, economically, and politically through China’s western border is a milestone for China’s government’s foreign policy strategy to transport goods via European countries. These positive developments enable China’s economy to be the second-largest economy in the world. The concentration of the opening-up initiative on the bordering regions in Southeast Asia, South Asia, and Central Asia aligns with China’s government purposes of overseas construction, outward investment, western development strategy, good-neighbor foreign policy, and capacity export. BRI will ensure integration among the BRI countries from west to east to protect China’s interests (He, 2020: 139-169).

China’s people suffered from stagnated and closed economies before China’s government opened up to foreign investment and trade in 1979. From that period to nowadays, the economic developments of China show that its economy relies on foreign transportation and enormous extent on the improvement of GBV (Global-value-chain) hence OBOR could be the main driver to help China’s static economy (Morrison, 2013: 20-22). OBOR could provide secure and alternative transportation routes to protect the national interest of China. For instance, the advancement of the

Kazakhstan are crucial places for ensuring security and stability in the region for gas and oil supply from Asia hence China's government should care economic corridors of the OBOR to secure transportation of energy supply. (He, 2020: 139-169). The China Pakistan Economic corridor ensures China's government pumps oil resources from the Persian Gulf and transport different type's goods (GRI, 2017).

Figure 28: Global Energy Demand between 2015 and 2040



Source: GEI, 2017

Piracy is one of the crucial problems for South China Coast countries such as Malaysia, the Philippines, and Indonesia. There are many reasons for piracy however, the political and economic circumstance in the region causes this terrorist action mainly. Strong naval power could prevent piracy attacks in the South China Sea however, China has little impact on the Straits of Malacca to stop these piracy actions (Purbrick, 2018: 11-26). More than eighty percent of the South China Sea which is called 'China's Nine-Deash Line', a proprietary right of the area has been claimed by China. China's government want to increase its military presence in the region also Chinese investors intend to access construction on small islands in the area however ASEAN member is determined to protect their territorial waters in the region (Wood, 2017). These desert and small isles are located near the Malacca strait therefore from

the perspective of European analysts, China's government could use the OBOR project as leverage to convince several BRI participants in the region to give up their territorial claims (Figure 29). If the project is implemented successfully China's naval power will increase in the region hence the number of piracy attacks may decrease (Grieger, 2014).

Figure 29: Countries with Claims in the South China Sea



Source: Pesek, 2017

As mentioned before, the Malacca strait has a key geostrategic location for energy transportation in the region therefore China's major aim is to control the South China Sea with the Malacca strait to secure energy transportation (MFA of PRC, 2015) however another alternative for oil transportation has been discussed in the area by China's authority. If the idea could be realized, China intends to establish a canal-like

Panama in Thailand, in the Isthmus of Kra from the Malaysian peninsula region (figure 30) (Scutt, 2015).

Figure 30: The Location of Malacca Strait and Kra Isthmus



Source: QGS, 2019

The passion of China to be a leader of the world economically and politically has been known by every country in the world (Van der Putten et al, 2016: 41-44). OBOR project will create an opportunity to realize China's international policy agenda (Casarini, 2015). China's government aims to allege contribute to global economic architecture and greater international influence, by incorporating many of its infrastructure and construction experiences. BRI shows that China takes great responsibility to help many participating countries to achieve their economic development objective. This project not only helps economic corridor countries but also will assist international economic governance. China's development process in terms of the Belt and Road Initiative project may take as an example for developing countries that are part of BRI. The AIIB was established by the Chinese government to reshape the international economic system with the help of OBOR (Huang, 2016: 314-321).

One of the most significant parts of the OBOR is infrastructure and construction development however the project is much more comprehensive in

content, covering different policy dialogue, unimpeded trade, people-to-people exchange, infrastructure systems connectivity, and monetary backing. China has much experience building enormous projects which is why infrastructure development will be a key factor for regional development and cooperation among the OBOR countries. Many important projects have been carried out such as oil and gas pipelines, electricity, a high-speed railway, an airport, and a seaport in BRI. These huge projects need funding therefore China's government established AIIB to help investors of the OBOR. From the perspective of the OBOR countries, not only China Development Bank and Silk Road Fund will fund the enormous projects of OBOR but also International financial institutions will give credit such as BRICS New Development Bank, Asian Development Bank, and World Bank (Huang, 2016: 314-321).

China is the world's second big economy and its have several competitors who want to reduce China's influence all over the world both politically and economically. OBOR has been compared to Marshall Plan (Sabin, 2017) however some analyst of transportation routes points out they have many different approaches in critical ways since OBOR is not based on direct support or even FDI, but on loan funding (Economist, 2016). On the other hand, American Marshall Plan and the OBOR project have similar characteristics such as exporting currency, fostering strategic divisions, boosting export, undermining competitors' influence, and gaining diplomatic and political support (Shen, 2016). China has had a proactive foreign policy to influence a broader area of the world since 1979 however, the USA try to reduce China's influence in the Asia region and other parts of the world for decades (Chance, 2016).

The economic corridor of Belt and Road countries may dependent on China's funding and China could control the project area economically. China may not conquer these regions militarily however economic power more strong than military power in the last decades (Grieger, 2016: 9). Also, the OBOR project is a kind of challenge for greater world powers such as India, the USA, and Russia (Pillalamarri, 2014).

1.6.3. Relation between OBOR and “Chinese Marshall Plan”

United States is one of the strongest manufacturing states at the time of World War II however, it had an overcapacity production problem. The United States

produces more than domestic consumption therefore they intend to find international markets to sell their product to solve its overcapacity production problem. The economic growth of the USA stagnates after the world war due to the excess capacity of production (Shen, 2016). OBOR project and Marshal Plan have a common goal that exports their currency to international markets so their currency could be internationalized in a financial transaction at global financial institutions (Shen and Chan, 2018: 1-11). Marshall Plan ensured that European states being aided should admit United States imports and investments U.S.A final good. European countries took goods and services from the USA and the economic transformation of the domestic market of the USA was successful (Shen, 2016). Marshall Plan helps to America to take global dominance in a short period after World War II (De Jonge, 2017). The U.S. gives European countries the recovery of their country and infrastructure of approximately thirteen billion dollars in 1948 (Demir and Tekir, 2018: 32-45). This clever plan ensures the control of the World Bank by the USA. There is a close relationship between the OBOR project and the Marshall Plan in terms of financing countries. AIIB was established by the Chinese Government and World Bank is mainly controlled by the U.S after World War II to finance different countries. To be a global power, the Chinese government uses the same financing method that is very similar to the Marshall Plan since the AIIB was established to finance member countries of the BRI to finance their investments (De Jonge, 2017).

Rising powers like the USA and China intend to use their economic strength to take global dominance, secure their foreign policy, and sustain their domestic economy. Differences between Belt and Road Initiative and Marshall Plan are much more than similarities. Two tremendous project differences are along the following lines: diversity of social systems and development strategies/political conditionality; globalized world/post-war; partnership relations/alliances; engagement of third countries/containment (Habova, 2015: 64-70). Marshall Plan and Belt and Road Initiative have similarities however China should demonstrate that BRI does not intend to have economic hegemony as United States did before. The end dates and policy conditions of the projects are different but the Chinese government still learns how the U.S.A affects the European country's economy and policies. Between 1948 and 1951, the United States transferred 115 billion dollars (13 billion dollars in 1948, 115 billion

dollars at current prices) to European countries for recovery and reconstruction. These numbers represent approximately one percent of the annual Gross Domestic Product of the United States. On the other hand, from 2014 to 2018, the Chinese government-financed 448 billion dollars in sixty-four Belt and Road Initiative member countries; almost 0.8 percent annually of China's Gross Domestic Product (Kozul-Wright, 2019). One significant reason why the United States established Marshall Plan is that European countries could balance power between the Soviet Union and the United States therefore the U.S. tried to take economic hegemony in the region to take all power against the Soviet Union. Russia is the main partner for the BRI, therefore, there is a difference between the Marshall Plan and the BRI Project in terms of Russian partnership. The Chinese government takes care of European countries' support as friend countries under than U.S Marshall Plan. U.S. foreign policy proposed to sell its good to European countries and help their economic developments therefore these improvements could assist the influence of the U.S. in the region. The BRI does not impress on ideological matters as heavily as the United States Marshall Plan did. Financial and economic factors have been the main concerns for the Chinese government to establish the BRI also this is another separation point for these international projects because the main goal of the United States was economic and political hegemony in the European continent (Shen, 2016).

The Chinese government offered mutual consultation, shared benefits, and joint construction as it launched the BRI into action and if China can do what they promise in this significant project, BRIe could be a leading project that influences both politically and economically all over the world. Marshall Plan covers only European countries and a few Asian states however BRI is open to every country, which wants to involve (Philip, 2019). There are five aspects that are common points of the Marshall Plan and OBOR such as exporting domestic products, internationalizing currency, against an opponent, encouraging strategic divisions, and diplomatic support for foreign policy. Marshal's plan was against the Soviet Union, on the other hand, the OBOR project is against the hegemony of the U.S.A (Demir and Tekir, 2018: 32-45).

1.6.4. The Belt and Road after COVID-19

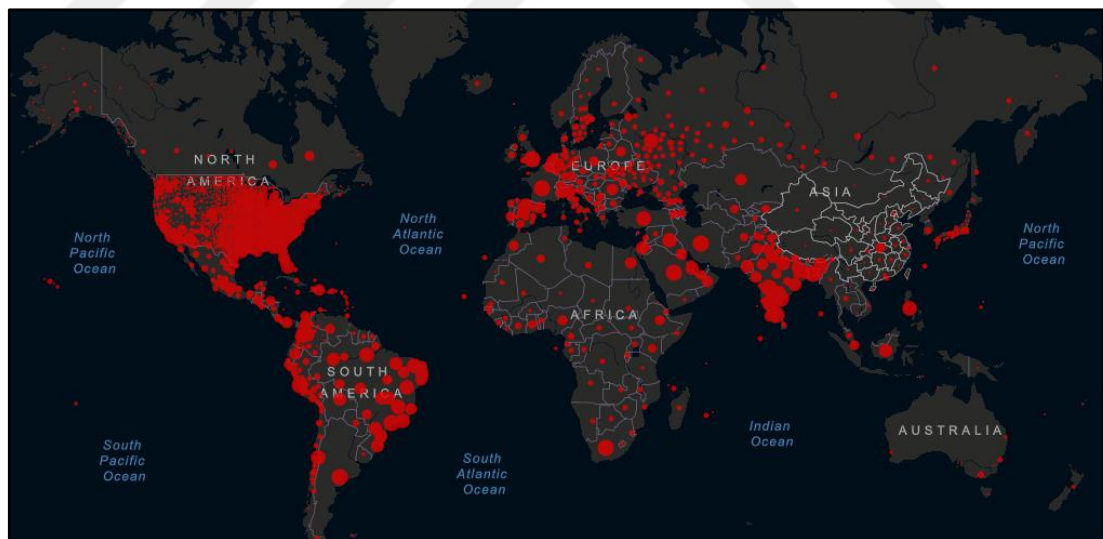
All transportation and trade activities have been affected by Covid-19 negatively. BRI will have suffered from a pandemic environment therefore infrastructure investment could increase slowly in OBOR economic corridor countries (Buckley, 2020: 311-314). This virus changes the shape of the world dramatically and no one knows how will transportation and business life back to normal conditions. Production has to continue to feed citizens of countries both BRI countries and other nations hence socio-economic shock has been decided by the supply and demand of the transport activities (Tonchev, 2020).

The main question is to what degree international institutions will help the recovery of the economic situation of the countries. China's giant initiative BRI needs a big amount of infrastructure and financing however Gross Domestic Product of China has been decreasing since 2018 and experts think that OBOR will face economic shortcomings in the next years (Laurentiu, 2020: 1-16). China's urban unemployment rate is increased to 6.2 and real numbers could be high therefore Chinese current situation is worse than before Covid-19 (Tonchev, 2020). Many BRI countries such as Mongolia, Djibouti, Pakistan, Maldives, Kyrgyzstan, Montenegro, and Tajikistan suffered from the high-interest rate of the BRI project which is why the Chinese government has been criticized from the start of the initiative (Laurentiu, 2020: 1-16). Several countries that are part of the BRI could cancel the current infrastructure agreement due to Covid-19 negative impacts on the economic conditions of the member countries of the BRI (Buckley, 2020: 311-314). These countries will have to meet with big economic shortcomings more than their current condition. Every BRI member states want to know this question answer; China has enough power the protect their current investment in Belt and Road Initiative economic corridor countries ? also how do they help these high indebted BRI member countries (Laurentiu, 2020:1-16).

Dramatically change of the transportation aspects due to Covid-19; new approaches have been activated more in the BRI such as the digital Silk Road and health Silk Road. Digital Silk Road could reduce face-to-face interactions between BRI users and Health Silk Road will help member states of the BRI to take measures against Pandemic (Buckley, 2020: 311-314). Cooperation between countries is a key

approach to solving this pandemic environment with the Digital and Health Silk Road. According to many experts, two significant scenarios have been met with respect to the Covid-19 in the next decades. Financial institutions could support the new recovery strategies for Covid-19 which is called the easy-to-recover scenario. In the Second scenario, most developed countries may help most infected and poor countries to recover them fast. This could be the most effective scenario because infected countries may rehabilitate their own countries and trade activities return to the time before the pandemic. Both developed countries and poor nations could take advantage of a big amount of export and import trade however, the USA is the most infected country in the world and they have 1.3 million infected citizens and an 81.500 death toll (Figure 31). They don't have enough power to help other infected countries also China suffered from Covid-19 much more than many countries although they have only 85.134 infected people and a 4.634 death toll. The second scenario seems not realistic because most developed countries do not have enough economic power to help other nations due to their current unstable economic conditions (Laurentiu, 2020: 1-16).

Figure 31: Covid-19 Cumulative Cases in the World



Source: JHU, 2020

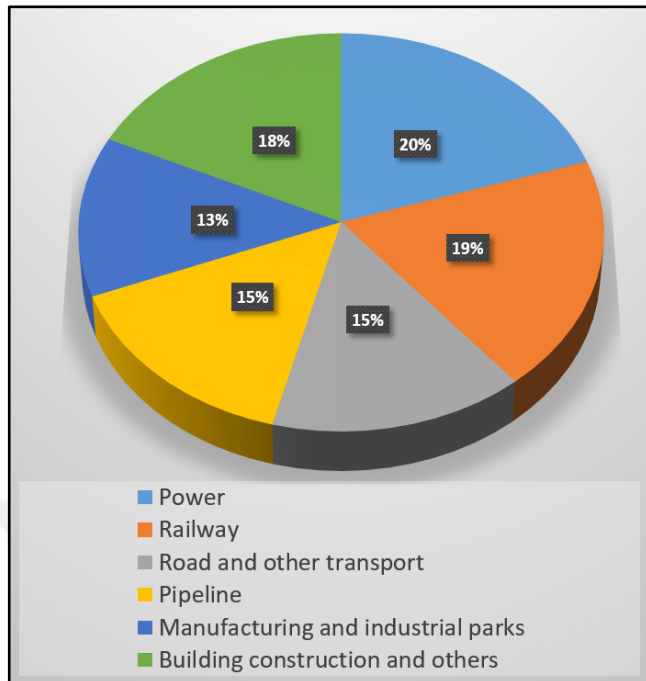
1.7. GLOBAL INFRASTRUCTURE AND INVESTMENTS INITIATIVES OF ONE BELT ONE ROAD

Infrastructure and Investment are major components of the OBOR project which is why every subject has common point with these two significant aspects of OBOR. Several infrastructure projects have been established such as a dry port that had been constructed in the Kazakhstan region near the China border. Railway investments are an important advantage for Belt and Road countries since it ensures the integration between economic corridors of OBOR. For instance, railway infrastructure was completed between Belgrade and Budapest in 2017 also this route will help to connectivity rate between other transportation activities between the port of Piraeus which has major importance for the OBOR (Poulton, 2019). The effects of the OBOR project have been realized in terms of trade and interconnection among the Initiative countries. Not only do infrastructure systems assist transport routes connection but also help reduction of trade barriers and transportation costs (Davis, 2017).

Investment initiative is one of the key subjects of the OBOR and several enormous projects have been built however there is still a big gap to connect all economic corridors of OBOR. Transport and energy sector investments are crucial for the initiative hence there is an urgency to complete these sectors' needs. After the completion of these investments related to BRI, sixty percent of global energy and transport infrastructure systems will have been completed (GI Hub, 2017). Rail transport, sea transport, pipeline, telecommunications, manufacturing, industrial parks, and other construction projects are investment sectors of OBOR and Global investors of OBOR heavily invest in these areas (Figure 32) (Wu, 2018).

The expected cost of the OBOR project will be almost one trillion dollars in 2049. According to the International Money Fund, this project may fill a huge and long-standing infrastructure gap in participants of OBOR. For Instance, a positive effect of the OBOR initiative shows that it's an approximately 11.000 km railway route

Figure 32: Investment sectors of OBOR project in 2017 (values by region)



Source: BHP, 2017

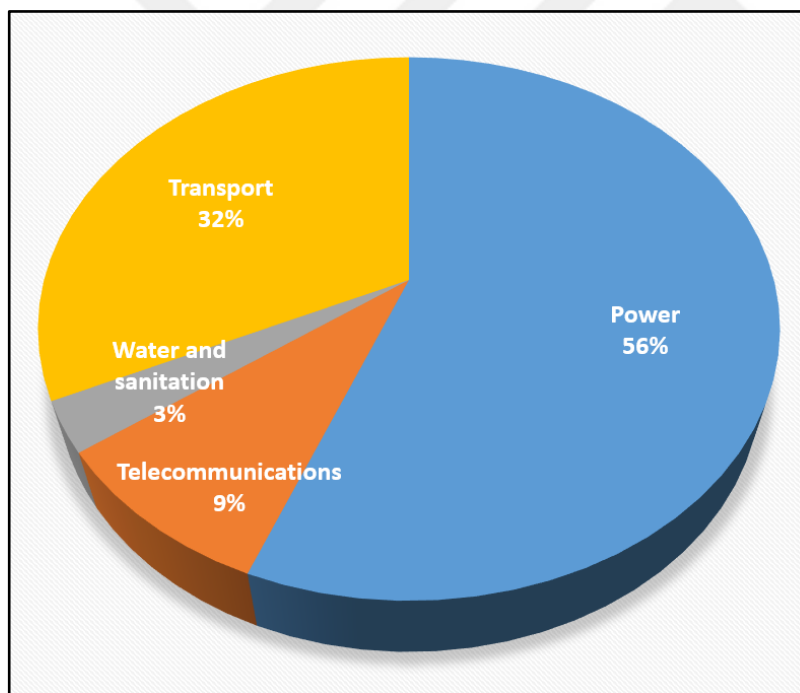
from Rotterdam to Chengdu which is an important city for China, takes just 15 days, on the other hand, the sea transportation of this route takes almost 45 days. The Chengdu-Tilburg-Rotterdam railway route has been carrying electronics, cars and clothes, and other goods five times a week. Another significant railway infrastructure investment of the OBOR Initiative start in China via Kazakhstan and Afghanistan, and the project has been completed in Europe (Poulton, 2019).

Pipelines, railways, power, and other transport investment projects cover seventy percent of the total investments of the OBOR initiative (Figure 31). The demand for infrastructure development in the economic corridors of OBOR is high therefore The AIIB has been established by China's government to fund enormous projects of OBOR. Economic corridors of OBOR need almost twenty-six trillion dollars in infrastructure investment until the end of the next decade. The estimated cost of the OBOR was approximately \$881 billion global, however, OBOR initiative statistics show that economic corridor countries spend almost double the estimated cost of the project. The gap between the required and actual cost of the OBOR initiative investment is approximately 2.4 percent of Asian regional gross domestic product.

Beyond the critical infrastructure investment of the BRI, project analysts express that thirty percent of investment would flow into new industrial parks, public buildings, automobile plants, refineries, and economic zones (BHP, 2017).

Infrastructure investment needs of the OBOR Initiative could be classified as power, transport, telecommunications, and need for water in the Asia region. The energy and power sector of the Asia region needs a \$14.7 trillion investment to help people who do not have electricity in their region in the next decade (Figure 33). Transport infrastructure is the second big sector in Asia's infrastructure investment need and the estimated cost of it is \$8 trillion, which is one-third the all investment need in the Asia region. Telecommunications infrastructure cost is about \$2.3 trillion (% 9 percent) and \$800 billion for water needs (%3 percent) (OECD, 2018).

Figure 33: Infrastructure Investment Needs in Asia by Sector, 2017



Source: ADB, 2017

Different successful OBOR projects show that this initiative not only transports goods from one country to another but also there are many multi-jurisdictional, large-scale, and game-changing infrastructure investments for the economic corridors of the

Initiative. There are several important OBOR projects in different types of sectors and regions including:

- i. The electrified railway line project was completed in the African region in 2016. The route of this significant project start from Addis Ababa which is the capital of Ethiopia and the route ends at Djibouti. Approximately seventy percent of this OBOR investment had been funded by China's Exim Bank also China Railway Group takes responsibility for the construction of this initiative.
- ii. One of the major investments of OBOR is the Port of Piraeus, which will be the center of the initiative in the next decades. China Cosco Holding has sixty-seven percent of this important port. This infrastructure investment may access the west and east part of the OBOR to open the door of European countries for Asian economic corridor participants.
- iii. The power Supply Project had been established by China Shenhua Energy Company for Indonesia in 2016. This initiative is part of OBOR to supply the energy need of the Indonesian people (Davis, 2017).

Table 4: Comparison of Estimates of Global Infrastructure Investment Needs

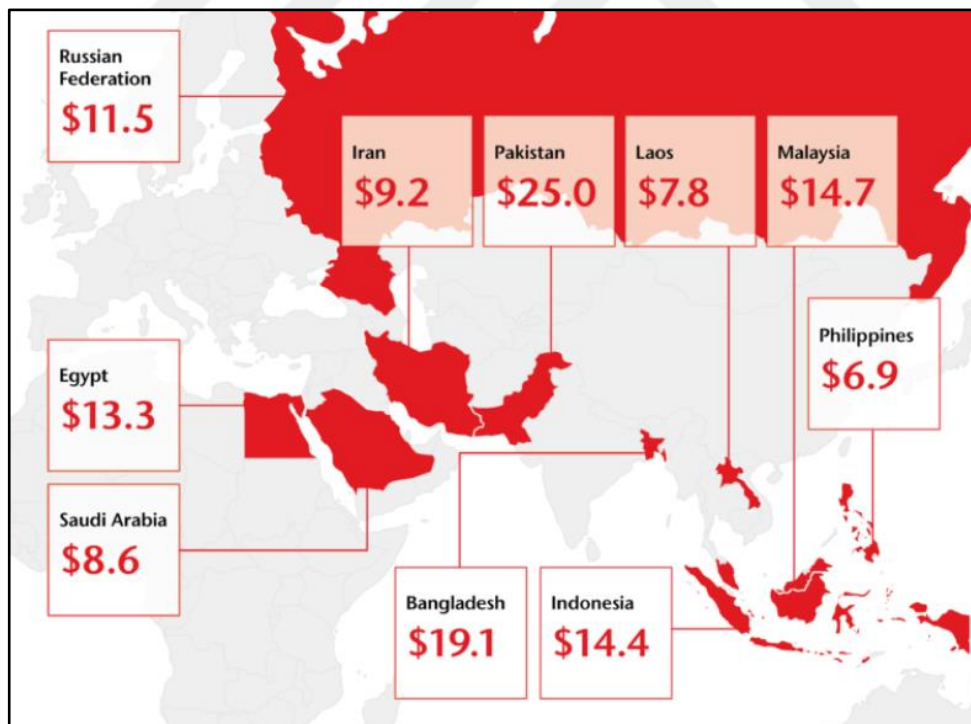
Source	Sectoral Scope	Actual/expected annual investment (USD trillion)	Investment need (USD trillion)		
			Time frame	Per annum	Total
OECD (2017a)	Including power generation, transmission and distribution, primary energy supply, energy demand and efficiency, transport, water and sanitation and telecommunication	3.4–4.4 (2017)	2015 - 2030	95	6.3
NCE (2014)		-	2015 - 2030	96	6.4
Bhattacharya et al. (2016)		3.4 (2015)	2015 - 2030	75–86	5–6
McKinsey (2016)	Including transport (roads, railways, airports, and ports), water, power and telecommunication	2.5	2016 - 2030	49	3.3
GI Hub (2017)	Including roads, railways, airports, electricity generation, transmission and distribution, water and telecommunication	2.3 (2015) growing to 3.8 (2040)	2015 - 2040	94	2.9 (2015)–4.6 (2040)

Source: OECD (2017a)

Several global investments of the OBOR initiative meet the deficit of economic corridors countries. There are several key sectors such as energy, telecommunication, water, and transportation to assist the development stage of the OBOR participants. There is a massive infrastructure investment need for economic corridors of OBOR therefore China funds its investors to establish these investments. Table 4 shows the number of money needed for global infrastructure investment for the OBOR project. The annual investment need for OBOR is approximately between \$2.9 trillion and \$6.3 trillion and the cumulative investment gap will be \$5.2 trillion by 2030 (McKinsey, 2016), or expected CIP could be \$14.9 trillion by 2040 (GI Hub, 2017). The global infrastructure investment need of the OBOR initiative will fall by almost \$0.35-0.37 trillion every year (McKinsey, 2016).

Asian Development Banks' statistics show that approximately \$26 trillion need for investment in the Asia region by the end of the next decade (ADB, 2017).

Figure 34: The Need for Investment in the Infrastructure of BRI, 2014-2019, \$ billion

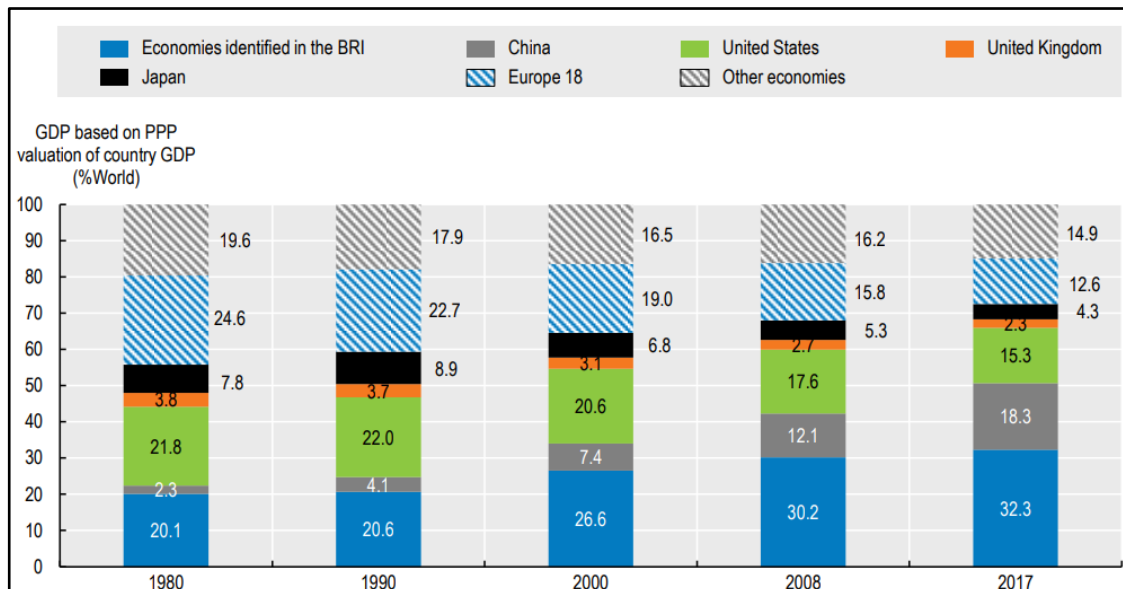


Source: Poulton, 2019

McKinsey (2016) and GI Hub (2017) support this data and they express that fifty percent of the OBOR Initiative will have been established in Asia countries. On the other hand, the cumulative gap of the investment project is almost \$4.6 billion which is over four times the \$1 trillion expected for OBOR Initiative foreshowed projects and is expected to rise by 2040 (GI Hub, 2017).

Infrastructure and investment are two main components of the OBOR initiative, it is hard to spare one from another since most the investment of initiative is generally infrastructure investment. Economic corridors of the OBOR country's needs may differ from each other in terms of infrastructure therefore cost of the infrastructure investment ranges from 6.9 billion dollars to 25 billion dollars (Figure 34). The importance of freight train services will increase also these trains will carry ferrying goods, high-value products, electronics, agricultural goods, auto parts, and fashion clothes from China to European countries. OBOR will ensure approximately 2.5 trillion dollars' annual trade volume for OBOR Initiative participants (Poulton, 2019). In addition to increasing, trade volume will help the social development of OBOR countries. Improvement of transport routes will ease the social life of the initiative

Figure 35: Size Comparison of Selected Regions and those Identified in the BRI, 1980-2017



Source: OECD, 2018

country's citizens (One Brief, 2018). OBOR investments are sustainable, low-carbon, and high-quality infrastructure. Besides, investors of the economic corridor or OBOR authorities should give support to upgrading, rehabilitation, and maintenance of existing infrastructure systems (GI Hub, 2017).

All project related to Infrastructure Investments covers almost 60 percent of the world's population and the OBOR project cover 32.3 percent of the world's gross domestic product (Figure 36). The GDP of China has a rising trend from 1980 to 2017 however, European countries' share of their GDP has decreased rate in the last decades. Comprehensive investment projects may increase the OBOR country's share of GDP (OECD, 2018). There will be many projects, which are part of the 21st Century Maritime Silk Road and the Economic Belt of the project. Figure 35 shows the Existing port and planned port of MSR and these projects will cover almost all over the world. The not only land part of the project is important but also the sea part of the project is very important for the Chinese government and BRI countries. If the existing railroads could integrate with the planned railroad, integration and connectivity will be the main success story of the OBOR initiative (MERICS, 2019).

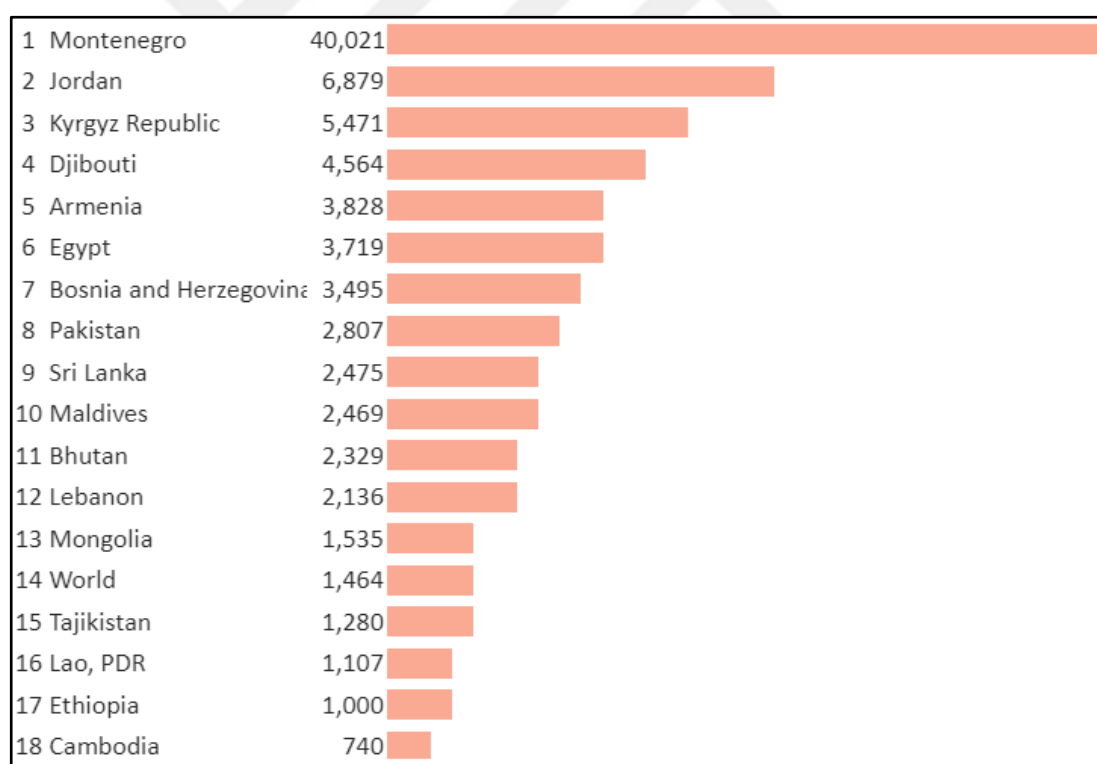
Figure 36: Planned and Existing Projects of OBOR



Source: MERICS, 2019

OBOR countries range from poor Afghanistan to rich Qatar, small population Timor-Leste to high population India, growing Ethiopia to debt-dependent Lebanon, import-oriented Bhutan to export-oriented Singapore, every OBOR participant reacts differently to infrastructure investment projects in terms of social, economic, and cultural aspects. OBOR project has more than seventy countries and includes almost 8 trillion dollars of investment in energy production, telecommunications infrastructure, and transportation network systems. Total estimated expected values of infrastructure projects differ from country to country. For instance, Montenegro needs almost 40 billion dollars to complete its infrastructure investment projects related to the OBOR initiative however Cambodia intends to invest 700 million dollars for the OBOR (Figure 37) (Knoema, 2019).

Figure 37: OBOR Initiative: Estimated Expected Value of Infrastructure Projects, 2019, (billion-dollar)

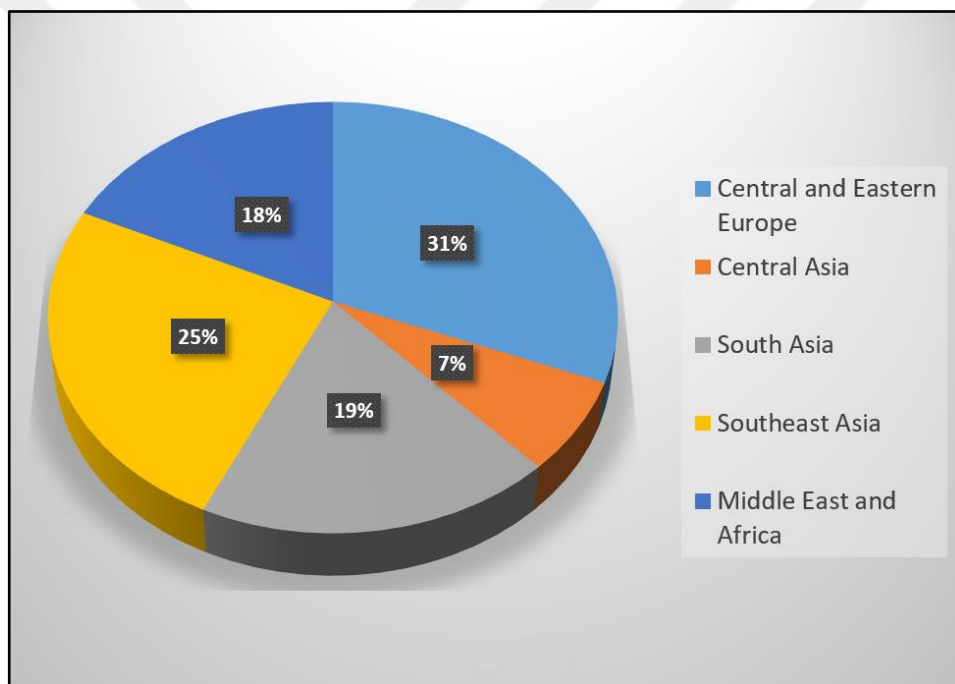


Source: Knoema, 2019

OBOR participants' investment requirements are differing from each other. If the investment requirements of OBOR corridors could compare with their gross

domestic product, their GDP percent will be like that: South Asia: 8.8% percent, Southeast Asia: %5.7 percent, the Pacific: 9.1%, East Asia: 5.2% percent. On the other hand, the current investment trends of OBOR could not meet the requirements of OBOR countries at a satisfactory level. There is a huge infrastructure investment gap between actual investment projects and expected established ones. This gap equals \$459 billion which is 2.4% percent of the region's projected gross domestic product. Also, lower-income countries in the South Asia region have to face higher gaps (almost 6% percent of expected GDP) compared to middle-income countries in Southeast Asia (ADB, 2017).

Figure 38: Project Investment Value by Region



Source: BHP, 2017

China's government intends to reach the European market since it has an open market economy hence they try to establish the OBOR project to ensure integration between Asia and Europe. Central and Eastern Europe have been the main target for China's companies and investors in past decades, therefore, the share of this part is almost %31 percent which is the biggest share of project value in the Belt and Road economic corridors (Figure 38). Asia region has been categorized into three regions such as Central Asia, Southeast Asia, and Southeast Asia. The Southeast Asia region

has more investment value than other Asia areas however, it has still a lower share than Central and Eastern Europe. The Middle East and Africa region have approximately %18 percent which has a fourth share in the projects investment value of the OBOR Initiative (BHP, 2017).

1.7.1. Transport infrastructure and services

Transport infrastructure is crucial for the OBOR project since all trade activities need integrated transport infrastructure between the West and east part of the economic corridors of OBOR. The quality of rail and road infrastructure helps the connectivity rate of transportation among the OBOR participants hence integration among the economic corridor countries will increase and the OBOR project could be a success story for member countries. China and its southwest neighbor countries have good road quality however north and northwest of China's region have low-quality roads. Although urban areas of the OBOR initiative countries has limited access to the road network of their countries during the bad weather conditions, several OBOR countries' road transportation network cover most of their country. This is one of the significant problems for the economic corridor integration of the OBOR. Not only do China and other participants intend to establish new transport routes but also they strengthen their current transportation networks too (Rozenberg and Fay 2019: 32).

The OBOR Initiative has played a critical role in the economic growth of the participant countries in Europe, Asia, and Africa. On the other hand, several analysts who are experts in OBOR transportation projects claim that huge transport projects may cause worsen some of the countries' economic growth due to unbalanced money flows. The findings of several academic research show that transport infrastructure plays a significant role in assisting the economic growth of OBOR participants (Wang et al., 2020: 288-307).

Integration between Europe and China is one of the main purposes of the OBOR initiative. Chinese investors and companies investing in infrastructure transportation in the European countries since 1975. The general characteristics of the investments of OBOR can be explained as follows:

- i. Railway connections between Europe and China ensure lower CO₂ emissions. If railway networks could use renewable energy, the number of emissions will be lower than the road transportation network of the OBOR initiative substantially.
- ii. Seaports have important for the MSR therefore China's government and investors heavily invest in seaports and their infrastructure. The Mediterranean region is one of the significant places for seaport investment to integrate multimodal transportation routes among the OBOR Initiative countries.
- iii. European laws and standards have been adopted by Chinese companies, although there are many comprehensive infrastructure projects.
- iv. Railway transportation from China to European countries depends on transit states such as Russia, Belarus, and Kazakhstan. Railway transportation from European Union to the Far East also depends on China. None of these railway networks is administered by European Union legislation on access to railway infrastructure. There is a gap between participant countries in terms of unity legislation of transportation network of OBOR initiative.
- v. OBOR gives a range of challenges and opportunities for economic corridor countries' transport infrastructure improvement, although many of these ensure the growth of China's government as a global political and economic power.

Chinese investors and companies started to invest in the transport infrastructure of European countries before the OBOR project establishment. Harwich, Thamesport, and Felixstowe ports have been managed by Hutchison Whampoa Company and are established in China. These ports are important transport locations for UK and Europe. Table 5 shows examples of Chinese companies' investment, contracting, and lending in the European Union. Chinese companies and investors involved in the European region in terms of investment can be listed as follows:

- i. Financial institutions of China heavily fund European infrastructure investment projects therefore Chinese companies invest in several different transport modes of infrastructure in Europe. Chinese banks may give credit to transport infrastructure businesses, either directly or individually or, for huge credits, via a consortium of several lender banks.

- ii. Profile of Chinese companies, which invest in European countries, is not single equity companies in general. Several shareholders manage the Chinese companies therefore, they share the risk. The amount of equity of Chinese company different from each other hence some Chinese shareholder has most of the equity of the company, however, several partners of the company have only a small percent of the equity (Table 5).
- iii. Chinese companies which are mainly invested in transport infrastructure, act as a renew or maintain existing transport infrastructure, contractors, and builders of new infrastructure systems of different transport modes (Peeters et al., 2018: 38).

Multi-modal transport integration is one of the main subjects of the OBOR initiative since transportation goods among the OBOR countries have been carried by different transport modes. To safe, fast, and economic transportation, the OBOR initiative needs comprehensive multimodal transport infrastructure which is why integration is very important for stable transportation. There is another significant problem for OBOR participants, the potential level of trade activities between OBOR countries could not reach the top level since low integration among the participants makes it impossible for fast and reliable transportation. For instance, inadequate railway integration of Myanmar and Bangladesh affect negatively the other neighboring countries that will use the same economic corridor transport routes (Djankov and Freund 2002: 76-90). Infrastructure investment projects of the OBOR should respect the security and sovereignty of all participant countries also OBOR initiative countries intend to create a multi-level, all-round, and comprehensive infrastructure investment framework centered on shipping, railways, pipelines, space information network, roads, and aviation along the route of the SREB and MSR. The framework plan of OBOR will change all dimensions of corridor economies significantly. It has dramatically reduced the trade activities cost of goods, technologies, information, and capital flowing between economic corridor regions, and effectively assisted the optimal and flow allocation of sources among the different economic corridor areas. These developments assist to achieve the common development of OBOR Initiative countries and mutually beneficial cooperation among the participants (OLGPBRI, 2019).

Table 5: Examples of Chinese contracting, Investment, and Lending in the EU

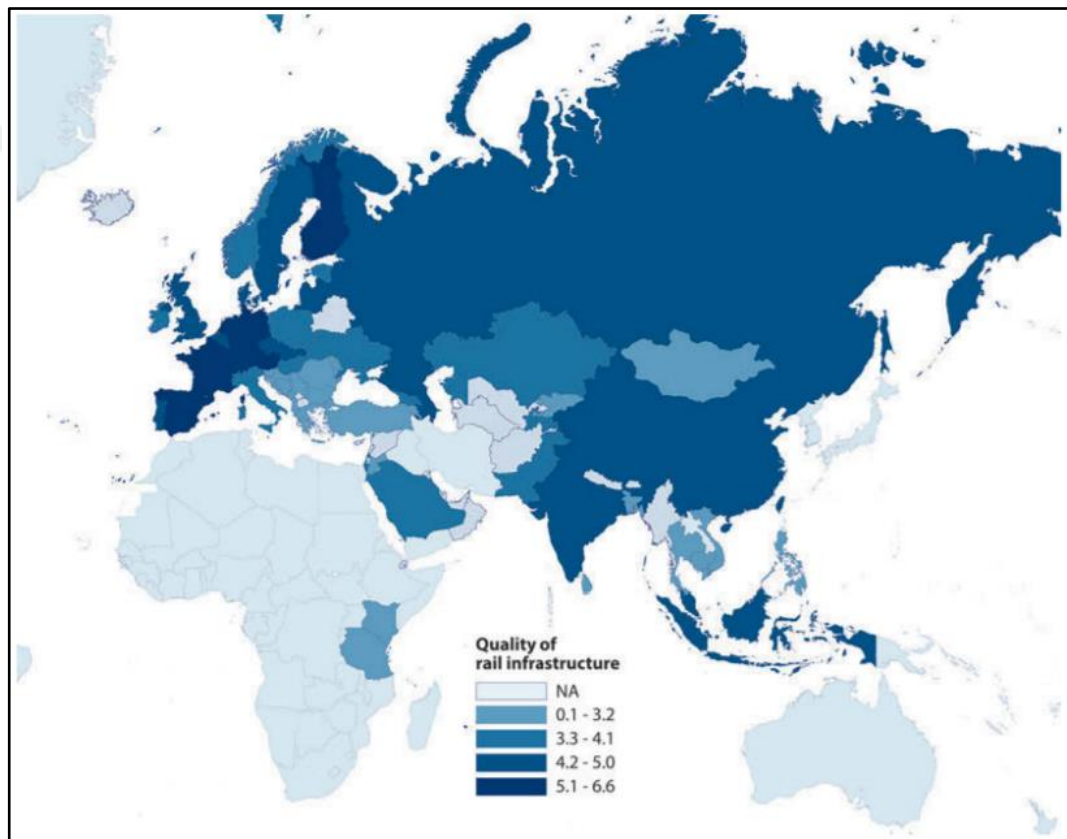
Type of infrastructure	Motorway	Port	Airport (airline)	Year	EU Member State	Project	Value (million)	Contractor	Minor shareholding (5-25%)	Major shareholding (over 25%)	Lender
New		X		1991	UK	Felixstowe	€110			100%	Chinese banks lend to a wide range of organizations
Existing operation and/or expansion		X		1998	UK	Harwich				100%	
			X	2014	LU	Cargolux	€ 198			35%	
			X	2015	FR	Toulouse	€ 308			49.99 %	
		X		2016	NL	Rotterdam Euromax	€ 41			35%	
		X		2017	ES	Valencia and Bilbao	€ 203			51%	
		X		2011	IT	Vado	€ 53			49.9%	
	X			1997	PL	Warsaw-Lodz	€ 330	X			
		X		2012	UK	Thamesport	€ 130			100%	
			X	2015	UK	Heathrow	€ 616		%10		
		X		2016	FR	Marseille	€ 400			49%	
		X		2017	EL	Piraeus	€ 369			51%	
	X			2017	IT	Autostrade per l'Italia	€ 705		%5		
			X		DE	Frankfurt-Hahn	€ 16			82.5%	

Source: Gleave, 2018: 62

1.7.1.1. Railways

Railway infrastructure indicates a less positive effect on economic development in the BRI countries than does the road infrastructure however the short-term positive effect of road infrastructure-less is more significant than the railway infrastructure of BRI (Wang et al., 2020: 288-307).

Figure 39: Quality of Rail Infrastructure



Source: WEF, 2018

From the perspective of China's government, one of the significant problems in China's neighboring countries has low logistics performance that's why china intends to invest in Asian countries to complete integration between the west and east parts of the BRI (Figure 39). There are three important railway routes from China to Europe and Central Asia. The southern route goes via Kazakhstan across the Caspian Sea to Georgia or Turkey, the central and northern routes go via Russia. Northern countries improved most of their railway line since 1980 however, Mongolia has still

undeveloped lines. All three-railway line has several problems such as partial electrification, the difference in allowable axle loading, and railway track gauge changes. The southern and northern railway line of China has an insufficient capacity between Europe and China. The southern part of the line faces many difficulties to such as rugged terrain and unreliable connection. Turkey has rough terrain and it's hard to complete integration between the west and east side of this railway line also this line need ferry crossing via Van lake, therefore, the first focal point of this line is to finish this part of the route to regular railway service from Asia to Europe. Transportation infrastructure shows its positive effect, for instance, blocking train container services between Vietnam and China, between Afghanistan and China, and between European countries, and China reduced transportation costs significantly (Bullock, et al., 2019). Other significant railway investments infrastructure BRI projects have been listed as follows:

- i. Tongjiang-Nizhnelenskoye railway bridge project has been established in 2018 and part of the China side of the project is almost finished. The preliminary design of the Moscow-Kazan High-Speed Railway project has been constructed by A Sino-Russian initiative consortium.
- ii. China Thailand Railway, Jakarta Bandung High-Speed Railway, China-Laos Railway, and Hungary-Serbia Railway projects, which are mainly intercontinental, and inter-regional BRI transportation infrastructures will have been finished in the next decades.
- iii. Uzbekistan-Kyrgyzstan-China Railway line and upgrade of the Pakistan Peshawar-Karachi railway project have been advanced at a great level. Preliminary research of the China-Nepal cross-border railway line and pre-feasibility study of the Pan-Asia Railway construction project has been finished.
- iv. Russia, Kazakhstan, and China are part of the railway network project that will combine with the European side of the railway line that is called the Western China-Western European International Expressway. Hungary Serbia Railway has started the construction of the Belgrade-Stare Pazova part of the project.

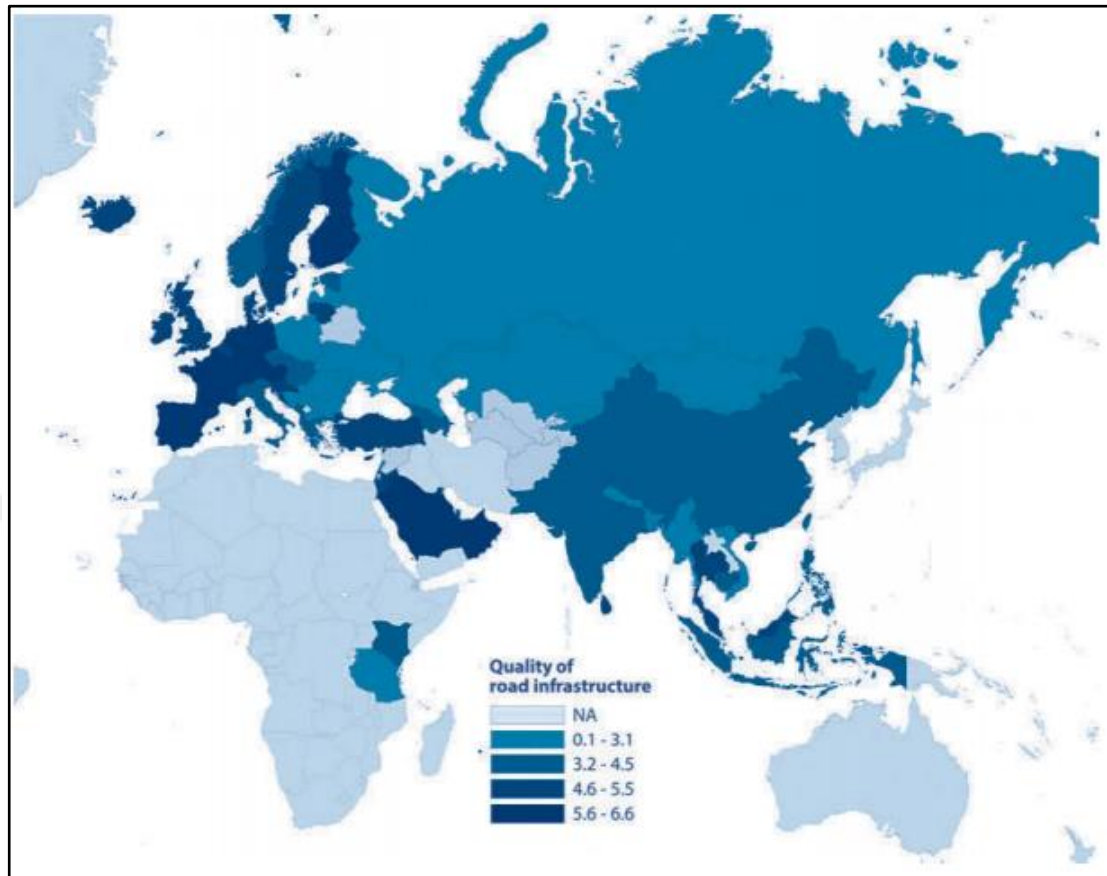
- v. Thailand-China railway network and Laos-China railway line has been progressing from the starting point of the BRI also the Kunming Bangkok Express has been constructed.
- vi. Feasibility study of the Mandalay-Muse railway line network and Kyauk Phyu SEZ project has been advanced to develop Myanmar-China economic corridor
- vii. After feasibility studies of about working conditions of China Railway Express, a global railway line network operating system with cooperation between BRI countries has been constructed.

Railway companies of Germany, Poland, China, Kazakhstan, Russia, Belarus, and Mongolia have signed an agreement to develop of Europe-China Railway line network. The Europe-China rail service network has been connected to more than a hundred cities in sixteen countries in Europe and Asia. This significant railway line carried approximately 1 million TEUs with 13.000 trains from China to European countries (OLGPBRI, 2019).

1.7.1.2. Roads

Road quality and the connection are well in Southeast Asian countries also several Gulf countries and Malaysia has quality road infrastructure than other BRI countries in the region. BRI countries that have quality road infrastructure are almost the same countries that have high-quality rail infrastructures BRI participants countries such as Ukraine, Czech Republic, Russian Federation, Slovak Republic, and Kazakhstan (Figure 40). Several Southeast Asian participants and the southwest China region (Pakistan and Kyrgyz Republic) have relatively lower quality railway infrastructure. Road and railway infrastructure statistics show that from the perspective of connection and quality of infrastructure, there is a huge gap in road infrastructure more than railway infrastructure in BRI countries (Wiederer, 2018: 2).

Figure 40: Quality of Road Infrastructure



Source: WEF, 2018

The establishment process of road connection is easier than railway infrastructure since several Belt and Road countries have more road connections than railway networks. Nevertheless, the construction of a railway network needs more capital than road infrastructure. Road transport quality of Mongolian roads is very low due to bad weather conditions and insufficient maintenance. From the perspective of transport infrastructure, Eastern Europe and Central Asia have the same significant problem which is insufficient capacity and maintenance (Rastogi and Arvis 2014). There is an inadequate road infrastructure network between Lao PDR and Myanmar however, Greater Mekong Subregion projects and ASEAN help improvement of connectivity and infrastructure of transportation among the BRI countries. BRI will help the development of the South Asia region, which has the world's weakest integrated, low capacities, and bad conditions transportation network among the economic corridors countries (Linn and Zucker 2019).

The road infrastructure part of the BRI has been continued construction and is not finished yet in many economic corridor countries. Uzbekistan-Kyrgyzstan-China, Vietnam-China, and Russia China (Novosibirsk-Dalian) road network has been constructed. Uzbekistan-Kyrgyzstan-China highway has started its operation and River II part of the Vietnam-China road has been established also all roads will be in service in near future.

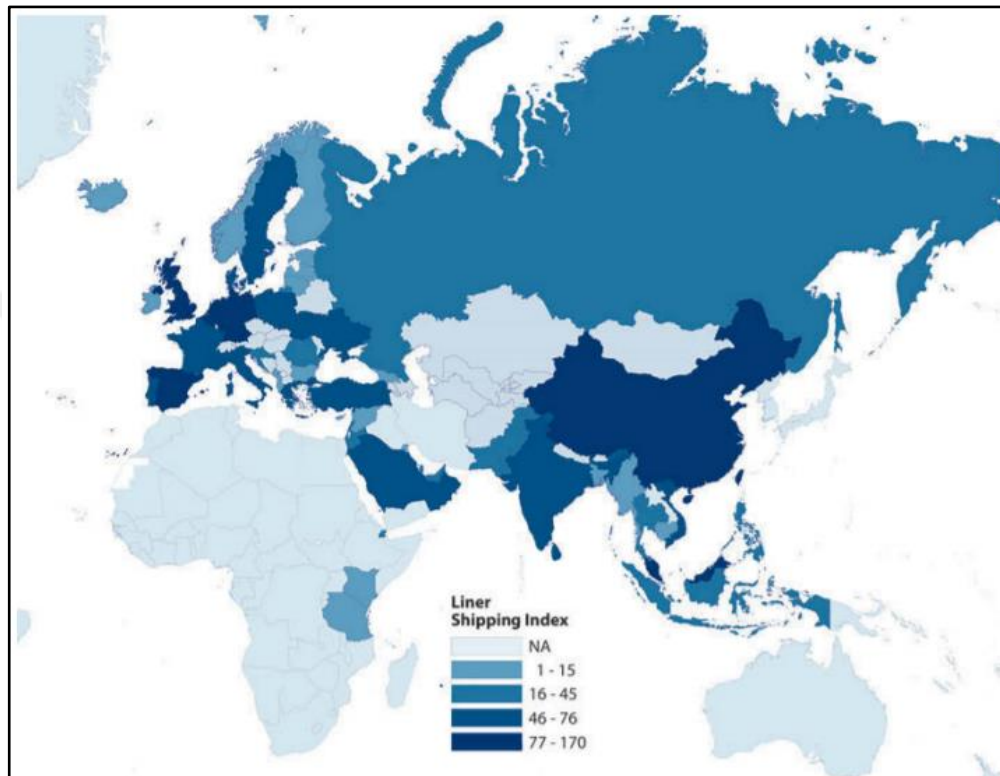
China's government officially joined the Convention on International Transport of Goods Under Cover of TIR Carnets. Eighteen multilateral and bilateral international transportation facilitation agreement was signed between China and several BRI countries. Ministry of Transport China has signed bilateral agreements on global transport routes with Turkey, Uzbekistan, Kazakhstan, and other Belt and Road Initiative countries. Russia-Kazakhstan-China, Uzbekistan-Kyrgyzstan-China, and Kyrgyzstan-Kazakhstan-Pakistan-China and several multilateral deals on global road transportation have been signed between BRI countries therefore infrastructure construction of road transportation continually develops in West Asia and Central Asia region. Road construction of the Gwadar Port, Karakoram Highway, and Karachi-Peshawar are other significant projects for BRI participants (OLGPBRI, 2019).

1.7.1.3. Ports

The availability of maritime shipping services is very crucial for integration between economic corridors and 21st Century Maritime Silk Road. China's government and Chinese companies invest in seaport infrastructure to ensure high connectivity between the east and west ports of the MSR. The liner connectivity index shows that Malaysia, China, Singapore, and Hong Kong SAR are among the five developing economies that have the top level of supply of maritime shipping services (Figure 41). The liner connectivity index gap between BRI countries is huge since the economic development of countries directly reflects the liner connectivity rate that they have. The Netherlands, United States, United Kingdom, and Germany were accepted as the five top countries of the liner connectivity index. Poland, Turkey, Sri Lanka, and Oman are corridor economies countries, which have an above-average rate of shipping services.

On the other hand, Cambodia, Georgia, Bulgaria, Myanmar, and Estonia have the lowest liner connectivity index among the BRI participants (UNCTAD, 2018).

Figure 41: Transport and Logistics Services in Belt and Road Corridor Economies, Liner Shipping Connectivity Index



Source: UNCTAD, 2018

Port infrastructure investment is one of the key points to complete BRI integration between regions and is very important for the 21st Century Maritime Silk Road. Not only MSR initiative establish new ports but also Chinese investors strengthen the existing ports to transport their goods between the west and east side of the economic corridors. Regular container liner service has been started in Gwadar Port and logistic center facilities have been opened in the Gwadar Free Trade Zone is located northern part of the Gwadar, approximately seven km away from the Gwadar port. There are more than thirty companies in the area and this new infrastructure investment will attract more companies to the region. Defining conceptual plans and industrial functions have been completed in Hambantota Port Special Economic Zone. One of the significant infrastructure investments of Cosco Shipping is Piraeus

Port, which is a transit hub for BRI trade goods. Phase 3 stage of the construction has been completed in the Piraeus port. Phase 2 stage of the Khalifa Port Container terminal that is located in Saudi Arabia was finished in 2018. China's government has signed thirty-eight regional and bilateral shipping services agreements with forty-seven BEI participants since the project started. Ningbo Shipping Exchange has shown great effort to improve 21st Century Maritime Silk Road Freight Index hence they released Ningbo Port Index and China-CEEC Trade Index (OLGPBRI, 2019).

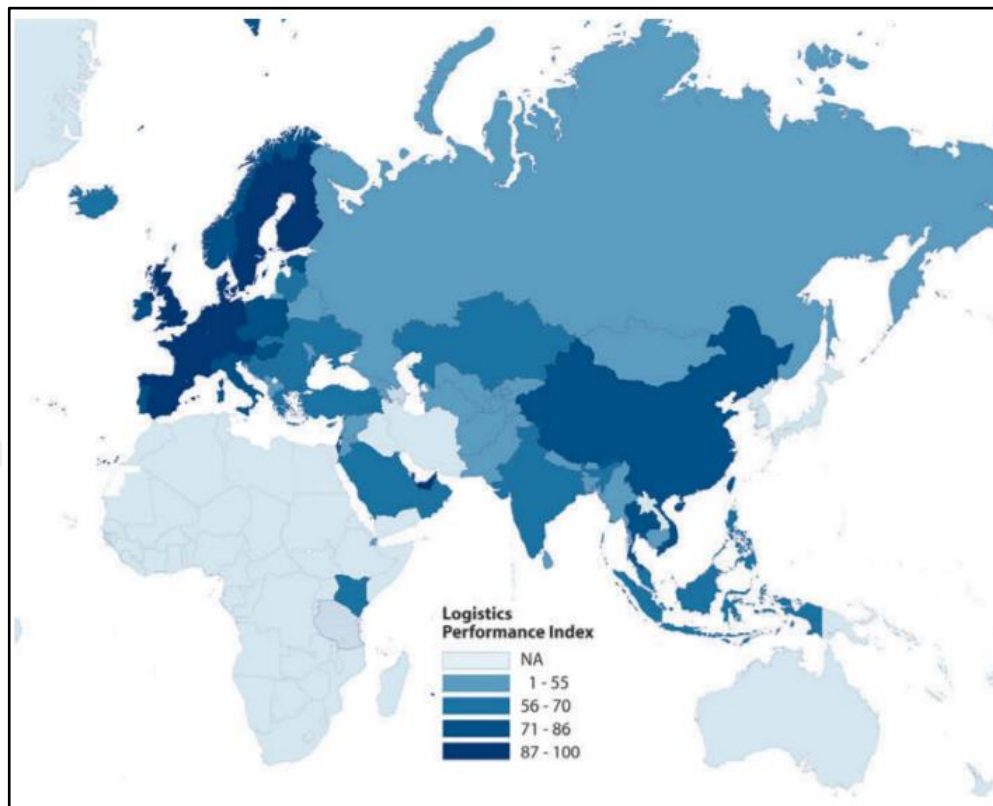
1.7.1.4. Air transport

China has extended its international flight and China's government signed an arrangement for air traffic between Belt and Road countries such as Armenia, Luxembourg, Israel, Egypt, Russia, Mongolia, Cambodia, Malaysia, Bangladesh, and Indonesia. Approximately 1200 international flights which cover almost 70 percent of all China's new global routes during the period have started between BRI countries and China in the last five years (OLGPBRI, 2019).

1.7.1.5. Logistics Service

Not only there is a huge gap between BRI countries in terms of transport integration but also according to the World Bank's Logistic Performance Index (2018), there are big differences in logistics performance index among the economic corridor countries. Bhutan, Iraq, and Afghanistan have the lowest logistic performance index rate however Singapore, Hong Kong SAR, and the United Arab Emirates are the three top levels of BRI countries in terms of LPI (Figure 42). To have high-quality transportation services, participant countries should integrate many aspects into one point such as availability of services, great connectivity, great quality infrastructure, and cost-effective and timely transportation for high-quality transportation. General statistics of transport mode's quality level show that railway service providers give the lowest satisfaction level among all transport modes in the economic corridor of BRI however trans-loading, distribution, and warehousing services were ensured in a great way in terms of logistic activities (Wiederer 2018: 2).

Figure 42: Transport and Logistics Services in Belt and Road Corridor Economics, Logistic Performance Index



Source: LPI, 2018

1.7.1.6. Energy facilities

Energy transportation is one of the crucial purposes of the OBOR project therefore China's government intends to secure its energy transportation between OBOR participating countries. Many exports and import energy agreement has been signed by China in OBOR corridor economies such as nuclear power, oil, gas, coal, electricity, and energy pipeline networks. These agreements have two major aims, one of them is optimizing the configuration of different energy sources between BRI participants and economic corridors regions and the other goal is safety transportation operations among the supplier and exporter countries. China-Central Asia natural gas pipeline and the China-Russia crude oil pipeline have been constructed during the establishment of the OBOR project. The Eastern part of the China-Russia natural gas pipeline project will have been opened in 2019 and all eastern pipeline lines have been

established in 2024 also Myanmar-China gas and oil pipeline project have been constructed (OLGPBRI, 2019).

1.7.1.7. Communication facilities

Communication improvement is very important for corridor economies hence, not only does China invest transportation infrastructure side of the BRI but also China's government invest communication part of the project which is mainly fiber optic cable between BRI participants. Pakistan-China, Russia-China, Kyrgyzstan-China, and Myanmar-China fiber optic cables have been established, on the other hand, International Telecommunication Union agrees with China to strengthen communication and cooperation among the BRI countries. China's government signed a cooperation agreement with Afghanistan, Kyrgyzstan, and Tajikistan on fiber optic cables that is called the One Belt One Road Fiber Optic Cable Project (OLGPBRI, 2019).

CHAPTER TWO

21ST CENTURY MARITIME SILK ROAD

2.1. 21ST CENTURY MARITIME SILK ROAD

MSR is an international initiative that affects all countries in terms of capital, commodity, trade, and culture. This maritime road will help its member states to cooperate on different subjects such as diplomatic relations, trade agreements, new business opportunities, and cultural interactions. From the perspective of China, this tremendous project may solve the Chinese overcapacity problem concerning industrial transformation and upgrading (Yu et al., 2019: 1). MSR project is seaside of the BRI and it intends to support port development along the route of MSR initiative hence Cosco shipping which is the significant port terminal operator of China invest Piraeus Port (Van der Putten and Meijnders, 2015: 9). There are approximately ninety-seven cities and ports along the BRI hence this significant initiative will affect the policy, culture, and economy of the participating countries (Ji and Gao, 2018: 270-275).

MSR is not a certain project that is an ongoing initiative with all member states and different infrastructure transport mode investments since the port hinterland covers all transport infrastructure to ensure connectivity along the trade routes. Despite the difficulties, in every phase, many countries try to join this sea initiative. It is hard to separate MSR and SREB because there are many connections in different trade markets however MSR covers the sea part of the initiative (Blanchard, 2018a: 61-65). BRI tries to ensure connectivity between Africa, Europe, Eurasia, and China and it provides transport infrastructure, cultural exchanges, and cooperation among the member states. On the other hand, MSR has expectations as same as BRI therefore from the Indian Ocean area, Oceania, and Southeast Asia to China, this initiative will increase the connectivity rate among the ports in the direction of the MSR route (Peng, 2018: 852-867). The Chinese government does not intend to only encourage its tremendous project but also will support regional transport and cooperation organizations such as NELB (New Eurasian Land Bridge) that connect Western Russia and Western China (Jiang and Fu, 2018: 551-568).

AIIB and SRF were established not only for Silk Road Economic Belt but also for MSR entrepreneurs who will also take credit from these financial institutions. At the end of 2027 total investment of BRI could reach 1.3 trillion dollars and more than a hundred fifty countries may attend this tremendous project. Ninety percent of transport goods from one point to another with the help of maritime hence MSR is a new opportunity for under-developed and developing states to take a share of this huge market (Weihai, 2017: 46-65). Nowadays, approximately fifty percent of global trade transport between Europe and East Asia (China) for this reason world's biggest container terminals such as Shenzhen, Busan, Shanghai, Hong Kong, Ningbo-Zhoushan, and Singapore take advantage of this significant transport market. Suez Canal is important for China to decrease transport time between European countries and Southeast Asia since the route from Africa to reach Europe takes extra four days for Chinese companies (Bernhard, 2020). MSR covers the route from China to Europe and includes the Indian Ocean area and South China Sea (Hu, 2019), through China

Figure 43: 21st Century Maritime Silk Road



Source: GASS, 2018

via the South China Sea to the South Pacific area (Hu, 2019: 79592-79601). The last developments related to MSR show that the initiative has three main directions along with the investment ports: 1. China- Southeast Asia region -Southern Indian Ocean 2. China- Central Asia that close to Russia- European region 3. China- Central Asia and the Persian Gulf to the Mediterranean region (Jiang and Fu, 2018: 551-568). The main route of the MSR starts from the city of Fujian (China) through the Southeast Asia region via the South China Sea area then reaches the Malacca Strait, Indian Ocean area via the Mediterranean region arrives in European countries (Figure 43) (Blanchard, 2017: 246-268).

China indicates that five major subjects will be significant for the Chinese government such as trade, interaction among the member states, currency, and connectivity along the routes of MSR. Subregional and industrial economic cooperation, maritime and other transport modes infrastructure systems (airports, railways, ports, highways), telecommunications systems and energy pipelines (Jiang and Fu, 2018: 551-568), marine science and technology (Luo et al., 2017a: 354-357) are also significant for Chinese companies and government policy (Jiang and Fu, 2018: 551-568). Construction policy is one of the critical strategies for both MSR and SREB. This is a common need along the route of the MSR hence developing member states of MSR intend to take benefit of this side of this initiative (Yang and Zhuo, 2019: 311-322). Chinese government emphasizes that mutual benefit is a key element for member states therefore cooperation among the participating countries will determine the success story of the MSR (Lockman, 2015: 1-6).

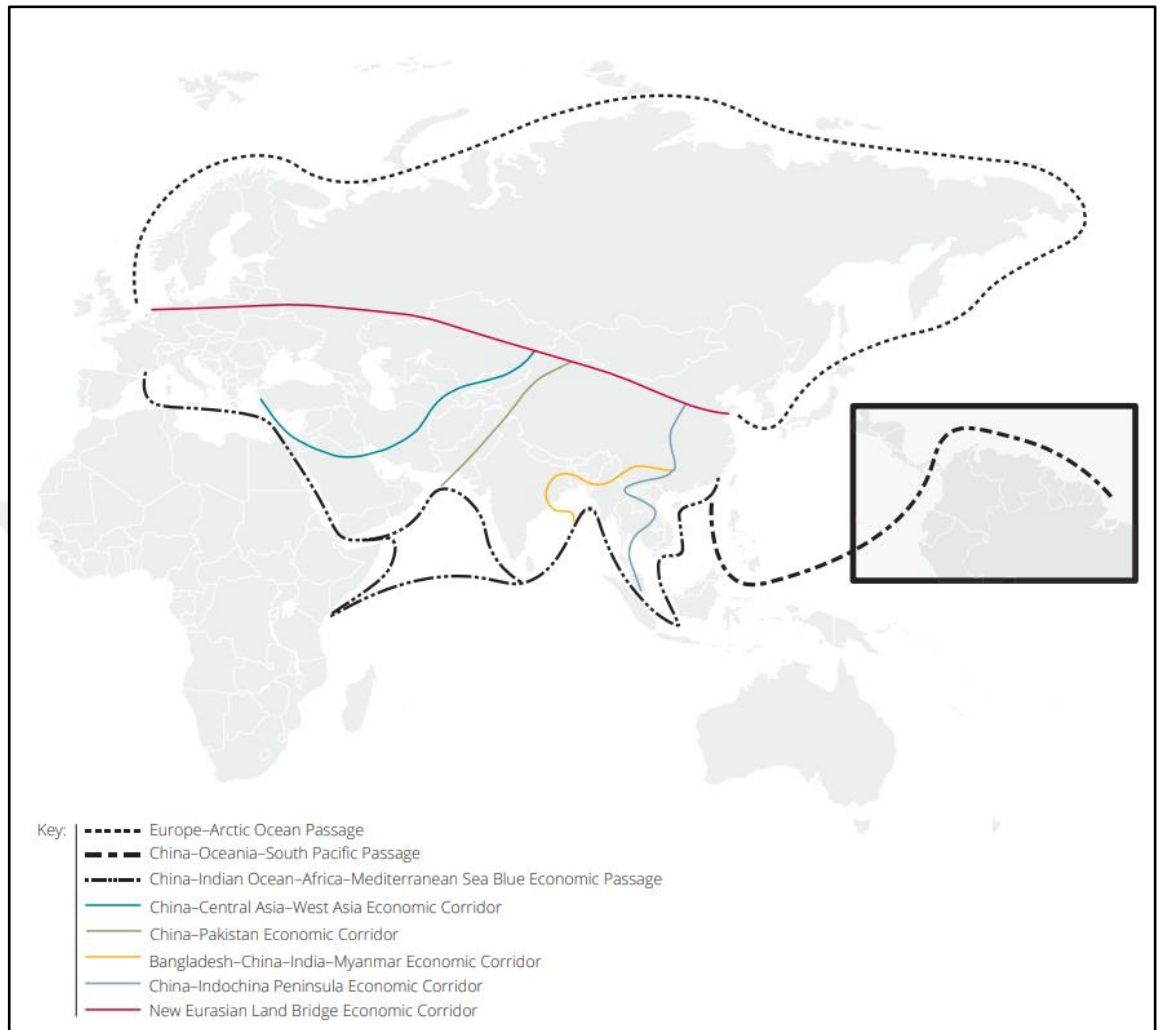
At the first announcement of the MSR and SREB, most European countries saw these transport projects as intangible and unrealistic however from 2014 to 2021, Chinese companies invest in many ports through the routes of the MSR, and today many states accept Chinese ambitions to realize to the initiative. Chinese government and corporations mainly invest in free trade zones, port constructions, custom procedures, e-commerce, supervision, and other agencies' activities (Nouwens, 2019). From the perspective of MSR, transport routes were examined however seaside of the project not only encourages its direction with respect to the transport volume and connectivity parameters but also MSR will boost the CASA (China Africa South America) transportation directions (Lam et al., 2018: 413). Three official passages

were declared since the project was started by the Chinese government; the first one is the China coast-Oceania Area-South Pacific route, the second passage is the China-Indian Ocean area- Africa Continent-Mediterranean Sea Economic Passage, and The third one is the European Coast-Artic Ocean passage that goes through China to the European coast via Artic which is known as Ice Silk Road (Polar Silk Road) (Figure 44) (Nouwens, 2019).

MSR has many economic benefits for China and member states besides safe ship navigation another topic for this initiative. The direction of the route was intended to protect the route that has the investment ports, a collaboration of China and participating countries hence safety of the route depends on cooperation between MSR countries (Zhang et al., 2018: 487-497). On the other hand, the safety of the route is not enough to be successful in transportation. Inter-state politics and infrastructure investments should interact with every factor related to MSR because the central points of the initiative connected these crucial elements (Blachard, 2017: 246-268.). Significant seaports along the route of the MSR will connect each other in a way secure, smooth, and efficient. Port efficiency crucial factor for this initiative to develop ports hinterland and connect with the Economic Belt of the project hence it is hard to separate the two sides of the project from each other. Investment facilitation, enhancing trade, and promoting developments are other significant topics for port competitiveness in terms of port investment (Huang et al., 2020: 1-13).

Nodes of the shipping network will have been connected intensely with the help of the MSR initiative. Stability network and connectivity will have been ensured after the port investments finish (Xing et al., 2018: 1-6). For instance, the Chinese government and companies invest in important ports such as Colombo port in Sri Lanka, Chittagong port in Bangladesh, and Gwadar port in Pakistan to ensure more suitable and fast services along the route of MSR (Mou et al., 2018: 10).

Figure 44: The Global Reach of China's 21st Century Maritime Silk Road



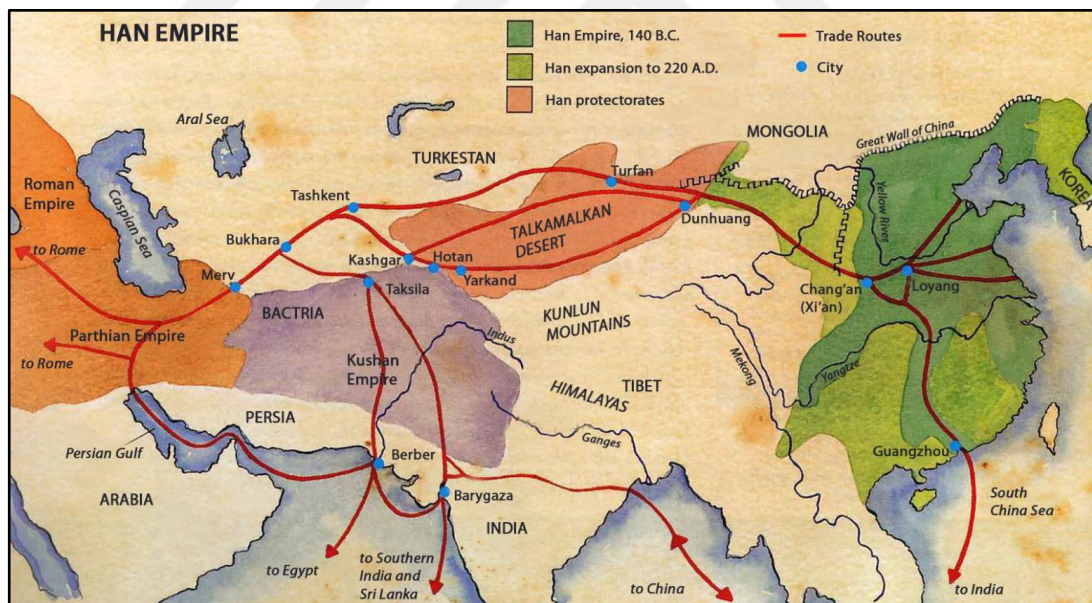
Source: Nouwens, 2019

2.1.1. Historical Background of Maritime Silk Road

Shipping has a long historical background of international cooperation, cultural interactions, and boosting trade activities since the ancient times of human civilization. Due to wars and other ecological developments, shipping lost its importance from time to time, however; Maritime is always being part of the trade-in world transportation. Historical shipping data of transportation show that international transportation has increased more than 1700 % in capacity terms in the last five decades (Lam et al., 2018: 413).

21st Century Maritime Silk Road refers to old maritime trade, which is called ancient maritime trade between China, Southeast Asia region, European countries, East Africa area, and the Middle East. Cultural interaction and trade were the main topics in this ancient route hence Chinese government intends to reorganize this significant transport route. (Len, 2015: 1-18). China is an ambitious country that wants to have influenced all maritime trade between the east and west also Chinese companies try to restore their historical maritime prestige all over the world (Luo et al., 2017: 1-4). Han and Qin Dynasties were trying to advance in Maritime Silk Road anciently. The story of the Maritime Silk Road was written by war because inland transportation along the route of the Old Silk Road was blocked by fighting countries. China has strong ties with the South of the world in terms of trade activities therefore MSR replaces the land part of the Silk Road. Ming Dynasty reached the peak point of the Maritime Silk Road concerning technological breakthroughs, great navigation

Figure 45: Ming Dynasty Silk Road



Source: <https://line.17qq.com/articles/lpkkldopv.html>

systems, and immense economic growth (Figure 45) (Chang, 2018: 148-156). From the perspective of European countries, Ancient Maritime Silk Road was an overseas Chinese ambitious project that connects the East and West countries. Today West has the same opinion as in past times however many countries from Europe intend to be

part of the MSR and Economic Belt of the initiative. From past times to the new culture of the Maritime Silk Road, the project could create new geography from the East Africa region, West Asia area, South Asia region, Southeast Asia to East Asia (Xie et al., 2020: 55-72). Export goods from China to other states via Maritime Silk Road are tea, silks, and ceramics (Blanchard, 2017: 246-268).

2.1.2. Declaration of 21st Century Maritime Silk Road

Maritime power, maritime right, and maritime security of China were emphasized by President Hu Jintao to protect china's interests in November 2012. This development could be the first reference to New Maritime Silk Road. President Xi Jinping extends the maritime policy of China in terms of trade routes and port infrastructure development hence Chinese government gives more importance to the maritime economy. The first trip of President Xi Jinping was to Southeast Asia and he mentioned that Southeast Asian states and China might cooperate to establish the 'New Maritime Silk Road' in October 2013. His ongoing visits related to New Maritime Silk Road were the Maldives and Sri Lanka in September 2014. 21st Century Maritime Silk Road was mentioned in many conferences and meetings by Xi to develop the maritime power of China. The main topics were his speech are mutual and peaceful cooperation among the participating countries in the initiative. Due to the negative China's image in the ASEAN countries, China should demonstrate itself to candidate countries of the New Maritime Silk Road with respect to the advantages of the MSR (Len, 2015: 1-18).

2.1.3. Scope of the Maritime Silk Road

Economic development is one of the key purposes of the MSR hence Chinese government expresses itself as an economic cooperator in the region that's why many country willingness to attend the seaside of this tremendous project. On the other hand, the port connection is also important for MSR to increase connectivity and unimpeded international transportation along the direction of the MSR (Suri, 2016: 12). Several subjects are significant for the Chinese government with respect to the development

process of MSR such as advanced transport infrastructure (Joseph-Harris, 2020: 144-178), the connection of MSR states to financial integration, smooth sea transportation, and increase cultural interaction as same as SREB of the initiative. It is fact that sea lines of communication are an essential factor for China to reach all transportation routes within Asia and other continents therefore from the perspective of the Chinese government, they intend to secure these significant routes with the help of the MSR initiative. One of the critical SLOC (Source lines of code) is the Suez Canal route and China invest in many projects related to this direction to have an impact on Suez Canal political decisions. Due to the large volume of Chinese goods transportation via the Suez Canal through European countries and intensify energy supplies of China from Africa and the Middle East region, MSR intends to secure Chinese interest with respect to energy transportation (Figure 46) (Suri, 2016: 66).

Diplomatic relations are also significant for the Chinese government basically and the MSR and land part of the project has the same idea to protect China's interest such as cooperation between member states of MSR, a harmonious environment for the region, and attracting attention from a non-member of an initiative to join this significant project (Chang, 2018: 148-156). Peaceful cooperation among the participating countries of MSR will help secure transport routes MSR is called New Silk Road Diplomacy (Dimitrijević, 2016: 21-44).

MSR does not have the capability to change the Chinese international role in maritime in short term however after the port investment and other logistic systems were completed no one may predict how China's influence change the world international transportation flow from Russia, Africa to Europe (Van der Putten, 2015: 6). China wants to extend its influence Asia-Pacific region which is mostly controlled by the USA government which is why the MSR initiative helps to fix Chinese government relations with Asian states (Dimitrijević, 2016: 21-44). It is impossible to deny the USA's effect on MSR and the Economic Belt of the initiative which is why this project is a kind of re-balancing strategy to reduce the USA's impact on the Asia region. This project gives opportunity to member states of MSR in terms of economic

Figure 46: Suez Canal



Source: Khabarhub, 2019

development hence from the perspective of Asian countries Chinese government may fix it as a bad image on neighboring states. Especially, the South China dispute changed the diplomatic environment in the ASEAN countries that feel uncomfortable about China's hegemony in the region (Len, 2015: 1-18). Protection of Chinese coastal states and ensuring the security of energy transport routes are the crucial purpose of the MSR. Not only Chinese government intend to secure its oil transport route but also it wants to extend its marine resource in South China and the Indian Ocean area therefore China invests in its navy in the last decades intensively (Yoshikawa, 2016: 79-89).

There are several economic purposes of the MSR to motivate China such as reach to international transportation channels, internationalization of the Chinese national currency (Renminbi), developing of Chinese local companies, procuring marine sources and oil transportation routes in the international area, foreign direct investment opportunity for Chinese companies and try to solve the excess capacity problem of the Chinese government. On the other hand, boosting the soft power of the

Chinese government is the center of political motivation for the effect of the diplomatic relation of MSR (Blanchard, 2018a: 61-35). Due to American influence in the Asia region, local cooperation in Asia is another significant political aim of China. China's government wants to strengthen its relationship between Cambodia, Pakistan, Sri Lanka, and Malaysia with help of Chinese companies determine the make an investment in these countries (Roell, 2016: 13). Neither Chinese experts nor researchers claim that there is no political purpose for the MSR initiative hence they allege that the Chinese government has no political ambition regarding taking power from the USA to control all over the world (Blanchard, 2018: 329-343).

Cooperation between member states of MSR is one of the significant purposes of the project therefore China tries to enhance to connect many countries along the routes of the MSR (Feng et al., 2019: 1). Official documents of MSR explain that development plans of China and participant countries, a blue partnership among the member states, determining maritime resources, and procuring harmony between MSR countries are the essential aim of the initiative (Jash, 2017: 3). MSR initiative will help to shift Chinese regional projections to the global area and China will be more proactive in international relations (Yhome and Chaturvedy, 2017: 4). Beijing's side believes that MSR could solve China's critical problems such as domestic issues, high debt in important sectors, overproduction, intense foreign exchange reserves, and overcapacity. Transferring low values-added manufacturing factories and labor-intensive facilities to foreign markets may help some of these significant troubles for the Chinese government (Jiang and Fu, 2018: 551-568).

2.1.4. Countries Covered by the Maritime Silk Road

The Maritime Silk Road initiative has no exact plan to realize in the current situation. The number of countries that are part of the MSR could increase or decrease depending on the future stage of the project. China intends to collaborate with every country along the route of the MSR though there are many obstacles to joining the initiative. The main route of the MSR is certain however a few countries can attend the project with new Chinese investment

Table 6: List of countries Alongside the Maritime Silk Road

Region	Countries
Africa	Tanzania, Eritrea, Kenya, Tunisia, Libya, Egypt, Djibouti, Somalia, Morocco, Algeria, Sudan
Europe	Macedonia, Serbia, Hercegovina, Romania, Slovenia, Poland, Latvia, Czech Republic, Finland, Portugal, Malta, Cyprus, Ireland, United Kingdom, Luxembourg, Italy, Germany, Macedonia, Serbia, Hercegovina, Croatia, Bulgaria, Slovakia, Lithuania, Estonia, Austria, Sweden, Spain, Hungary, Greece, Denmark, Belgium, Netherlands, France
Oceania	Australia, New Zealand
South Asia	Maldives, Sri Lanka, Pakistan, India, Bangladesh
South Pacific	Tuvalu, Samoa, Micronesia, Fiji, Papua New Guinea, Tonga, Niue, Cook Islands
Southeast Asia	Thailand, Myanmar, Laos, Cambodia, Philippines, Vietnam, Singapore, Malaysia, Indonesia, Brunei
West Asia	Turkey, Iran, Kuwait, Oman, United Arab Emirates, Palestine, Lebanon

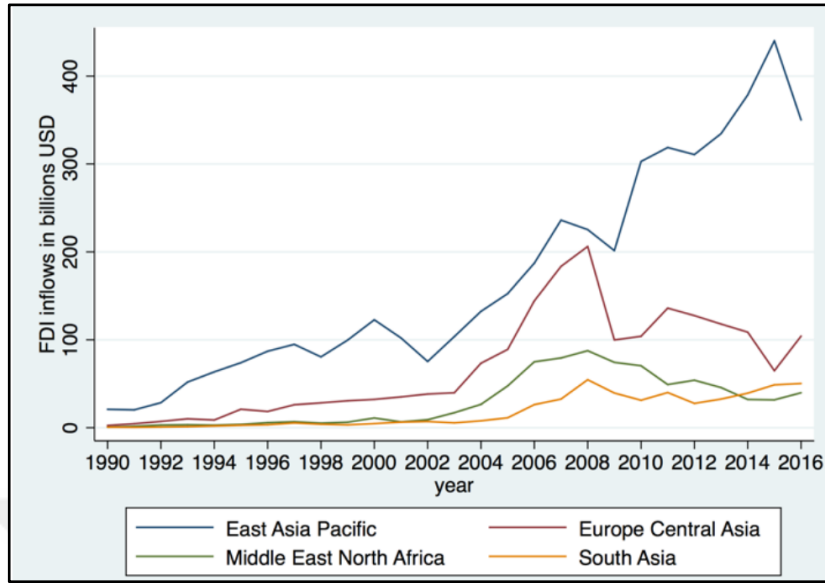
Source: Xue et al., 2020: 551-568

and attempts. MSR covers eight different regions as West Asia, Southeast Asia, South Pacific, South Asia, Oceania, Europe, and Africa (Table 6). Most European countries may be affected by this sea transportation project directly or indirectly. China is the main investor in the African region therefore member countries of the MSR in the African region are loyal to Chinese transportation projects in the area. Australia and New Zealand take benefit from the initiative in the Oceania area. Pakistan and China have a close relationship in the South Asia region therefore Pakistan will be part of all transportation projects in the region with the help of the Chinese government. China wants to fix its relationship with the South Asian countries therefore Chinese government gives more importance than any other participating region in the direction of the MSR (Xue et al., 2020: 551-568).

2.1.5. Financing of the 21st Maritime Silk Road

The Chinese government has a great opportunity to design its global role with the help of financing tools such as lending money to MSR countries. Economic development is one of the crucial factors for any country in the world and strong states use economic situations as leverage to influence underdeveloped or developing countries (Blanchard, 2018a: 61-65). The Chinese government has many financial institutes such as the Export-Import Bank of China, the BRICS New Development Bank, Silk Road Fund, China Development Bank, China Investment Cooperation, Sinosure Credit Insurance, and Asian Infrastructure Investment Bank lend money to economic corridor countries MSR (Yhome and Chaturvedy, 2017: 20). Not only lending money is a method to affect neighboring countries but also a letter of credit is another instrument to impress member states of MSR in terms of financial perspective. MSR countries use credit to complete their transport infrastructure to connect the main transport routes in the world that's why they intend to be part of this significant transportation initiative. A large amount of capital was supplied to complete the transport infrastructure of MSR by the Chinese government however, there is no clear data to show how much money will spend to establish all gigantic transportation projects in the initiative (Blanchard, 2018a: 61-65).

Figure 47: China's Foreign Direct Investment in BRI Countries



Source: World Bank, 2018: 1-11

The economic power of China assists in lending money to BRI companies and government institutions that part of the MSR infrastructure investments will help the growing process of the initiative that is why the figure shows that the FDI of Chinese firms and government has increased significantly in BRI countries. Especially, the East Asia Pacific region take a big part of the investment approximately 350 billion dollars in 2016 with respect to the MSR initiatives (Figure 47) (World Bank, 2018: 1-11)

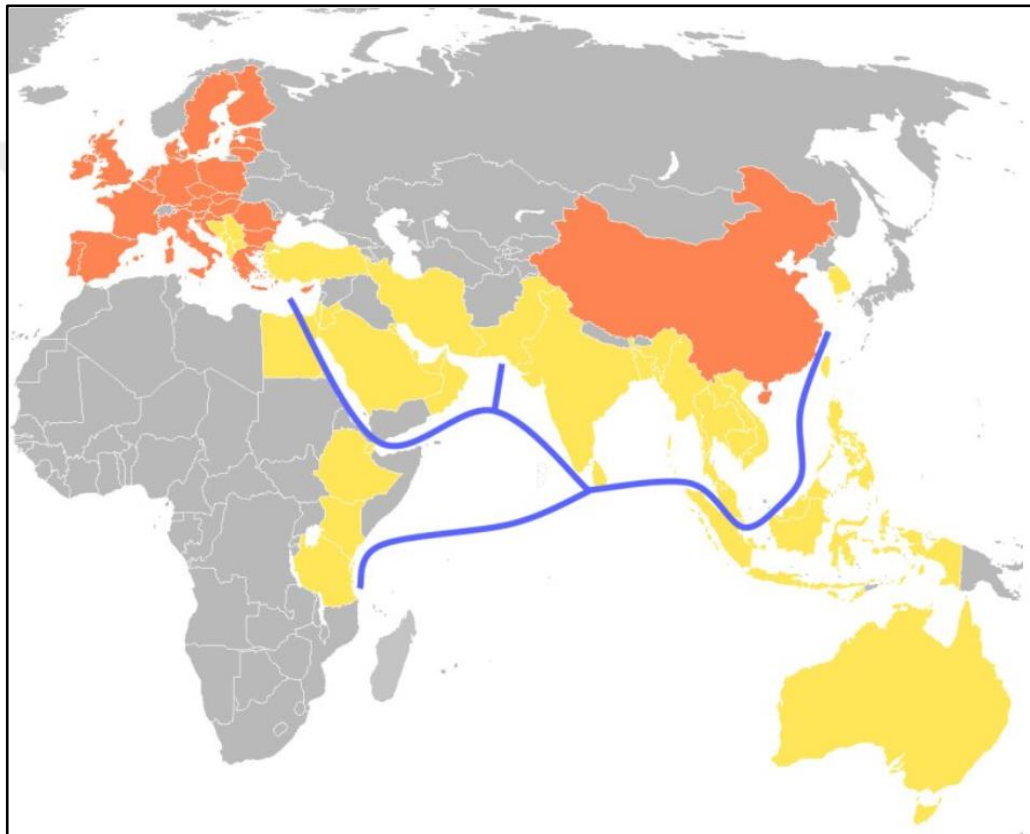
2.1.6. Coverage of the Maritime Silk Road

The Economic Corridor of the OBOR Project has close relation with the Maritime Silk Road, which is the second part of the OBOR initiative. As mentioned before, 'The Belt' intends to intensify mainly road and railway trade between participating countries however the 'One Road' will try to strengthen maritime trade among European ports and Chinese ports (Wolf, 2016: 3).

Economic Corridor of One Road Project includes cooperation and infrastructure agreements which are mostly related to ports, and different types of investments in the Mediterranean Sea, Southeast Asia, East African coastline, the Indian Ocean, and the Arabic peninsula (Figure 48) COSCO shipping has a crucial

role in terms of the 21st Century Maritime Silk Road. The infrastructure and different types of investment made by the China Ocean Shipping Company at European ports (Especially the port of Piraeus) pave the way for the Chinese government's strategy to revive the ancient silk sea route. This sea route project intends to simplify commercial activities and modernize infrastructure systems to accelerate and intensify exchanges along the MSR (OBOReuropa, 2020).

Figure 48: The Map of Economic Corridor of One Road



Source: OBOReuropa, 2020

2.1.7. Project Time

The 100th anniversary of the People's Republic of China may be a significant date for the MSR initiative hence Chinese government try to finish the establishment of the sea part of the project by the end of this specific date. The land part of the initiative is a priority for the Chinese government however there are many port infrastructure projects related to MSR in the last decade. 2049 will be the substantial

date for the Chinese people to celebrate their republic therefore member states of the project and transport routes will have been reaching the maximum points of the initiative at this date (Cohen, 2015).

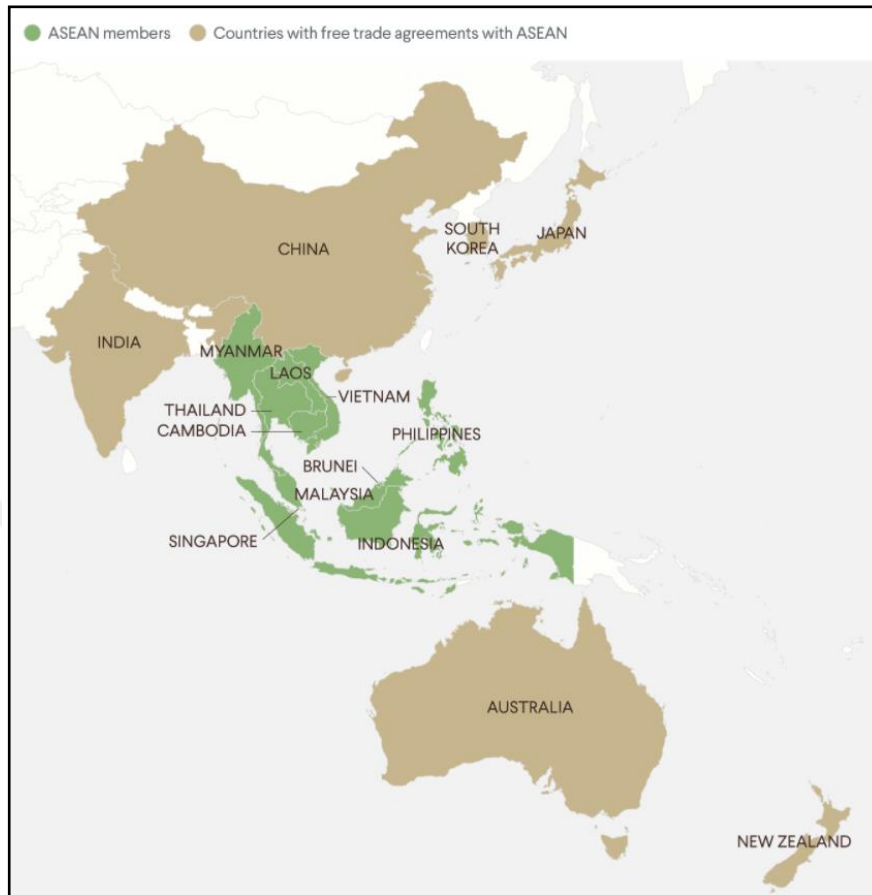
2.1.8. Positive Effects of the 21st Century Maritime Silk Road

There is a positive correlation between port connectivity and transport demand hence cooperation along the direction of MSR will help the participating countries of the initiative in terms of taking a share of the transport markets. After the establishment of the inter-port value chain via transport infrastructure of the MSR cargo transport demand will increase concerning the capacity of the MSR ports. Port alliances are another critical issue for MSR organizations, therefore, cooperation that MSR procures with participating countries will increase alliance agreements and port transport efficiency among the member states of MSR ports (Feng et al., 2019: 1-5).

MSR will boost China in the global arena strategically, politically, and economically. From the perspective of the Chinese government, the seaside of the OBOR will help with many significant parameters related to the development process of China such as trade, tourism, transport infrastructure, shipping, and connectivity. Member states of ASEAN countries try to protect their right with respect to the territorial sea disputes of the South China Sea and the Chinese government claim that a major part of the marine resources belongs the China (Figure 49). Beijing's image in participating counties of ASEAN could fix with the help of the MSR initiative which is why the Chinese government tries to communicate with every country in the world.

Some expert and researchers claim that MSR is part of China's ambitious initiative that control trade activities all over the world however this gigantic initiative allows finding a job for the underdeveloped and developed countries people that's why many countries want to be a part of the seaside of the OBOR. It is hard to believe that this project will help only welfare, economic development, and mutual benefits among the member states. On the other hand, there are still many great opportunities to use economic and political matters to raise their country as member states of MSR (Yhome and Chaturvedy, 2017: 22).

Figure 49: Member Countries of ASEAN



Source: Maizland and Albert, 2020

2.1.9. Challenges of 21st Century Maritime Silk Road

There are many positive consequences of MSR however BRI experts claim that problems and negative results of the MSR have been met by the participating countries of the MSR in the next decades. For instance, high amount of finding funds, coordination problems at coastal ports that are in the line of initiative, and risk of trade break down of balance policy in terms of competitiveness of development ports along the route of MSR are problems of the seaside of the initiative. The Chinese government and financial institutions give money to MSR countries to complete their transport infrastructure, however; refunding a big amount of money is a real problem for under-developed countries. One of the significant criticism of the MSR is a debt-trap policy that countries cannot pay their debt to Chinese authorities (Mou et al., 2018: 2)

Governance is another challenge against MSR to complete infrastructure projects on time. Under-developed countries that along the direction of the MSR have weak governance hence government change and domestic factors of member countries may cause serious problems to complete investments with respect to the political issues. Not only time will be a serious issue for the Chinese government and companies but also cost overrun may be another critical problem for investors. Myanmar and Sri Lanka are great examples of this kind of trouble (Yhome and Chaturvedy, 2017: 39-40).

Beijing intends to cooperate with all neighboring countries to solve the economic and political problems of the MSR however India is one of the strongest countries against MSR in many perspectives. South Asian countries have suffered from the China-India conflict to have great infrastructure investment related to the seaside of the initiative. Bangladesh, Pakistan, Maldives, and Sri Lanka are significant states to increase influence in the region by the Chinese government. On the other hand, the Indian government is uncomfortable about increasing the political and economic effect of China in the Indian Ocean area hence China tries to take another state's support to encircle the Indian government (Figure 50) (Chung, 2018: 315-332).

Figure 50: Neighboring Countries of the Indian Ocean



Source: Owl and Mouse, 2021

India and Japan fear economic competition against China and they do not want strong China both economically and politically that's why they aren't signing to become a member of MSR and be part of AIIB (Blanchard, 2018a: 61-65). Trust deficit may be a key term for challenging perspective of the MSR hence Chinese government has a bad image in many countries in South Asia and all over the world that is why candidate countries for the initiative have hesitation about the project because of Beijing's purposes (Cai, 2017: 17)

2.1.10. China's Role in Maritime Silk Road

From the perspective of the Chinese government, the sea part of the initiative will be a win-win game for all countries that will the part of the MSR. China intends to control the Asia region economically and politically which is why Chinese institutions give credit to member countries of the MSR. Loans are given by the Chinese government and companies not only give chance to economic control but also Chinese currency will get more significance in the international market (Karim, 2015: 297-309). China focuses on maritime hegemony since its presence in the world and MSR is one of the significant projects that give maritime power to the Chinese government to control trade routes between the east and west. Infrastructure investment through the direction of the routes will support the hegemony of China via increasement in the connectivity rate of trade routes. Many countries are against Chinese influence in the region although China will take control of many ports along the routes of the MSR. Maritime rights and security are priority factors for Beijing's perspective on maritime policies which is why China intends to control all MSR sea routes and protect sea trade activities (Len, 2017: 41-53).

Stability and peace in the region are very crucial for Chinese authorities. MSR will ensure peaceful life in the Asia region, especially in the South Asian region. It is hard to separate naval development and merchant marine development for China since merchant marine development paves the way for merchant marine development in China. The naval power of China will help to secure MSR trade routes that why naval diplomacy also affects sea transportation routes in the region (Yhome and Chaturvedy, 2017: 74). Naval diplomacy not only supports the trade activities

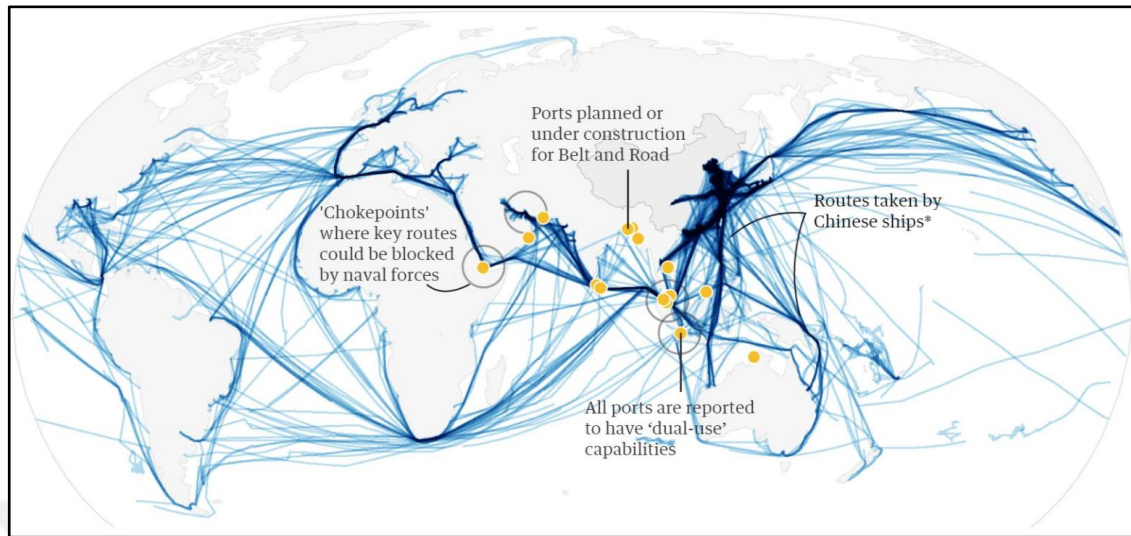
related to MSR but also helps to secure energy transportation routes along the direction of the initiative. The growing power of China in the Indian Ocean annoys both India and the USA. China has an ambitious strategy to control the South Asian Sea and the Indian Ocean area to increase its effect on all neighboring countries and MSR participating states in the region (Len, 2017: 41-53).

2.2. IMPORTANCE OF PORTS AT MSR

Transport infrastructure is a key factor for the development process of all countries hence developed countries and under-developed countries mainly focus on their critical transport infrastructure system to connect global trade routes and export-import networks. Ports are nodal points for different transport modes and connect one country to another by seaway (Figure 51). MSR initiative intends to develop all ports between the east and west point of the project which is why many Chinese institutions are willing to give loans to member countries of the MSR that has a port connection (Wang et al., 2019: 11). The main encouragement of the participating countries of the MSR to attend this sea part of the initiative is economic support to their country through port infrastructure development (Clemens, 2015: 7-10). New terminal facilities and development of the port hinterlands will boost the trade activities along the MSR route (Wang et al., 2019: 11). Interaction between MSR ports will increase connectivity and trade capacity between the east and west point of the ports hence Chinese authorities and member countries intend to complete all missing parts of connection ports along the direction of the MSR. Especially, Chinese terminal operators try to be part of the initiative.

Ports are the center of the MSR project hence investment attempts are generally related to port infrastructures (Wang et al., 2019: 17). Maritime cargo transportation is one of the main aims of the MSR and ports are the core element of the initiative hence Ports' development of the MSR affects the success story of Beijing's plan. It is hard to determine the ports separately. Hinterlands of the ports affect all member countries' transportation networks and strong connections between

Figure 51: Ports Planned or Under Construction for BRI



Source: Vandenbroeck, 2019

ports and hinterlands turn back positively to the development process of the MSR initiative. Ports have many critical roles in the MSR development process such as integrating international and domestic markets, bringing technology to MSR infrastructure systems, serving as a vital point in international trade routes, combining advanced logistic operations, using advanced information systems, bringing warehouse opportunities for participating countries and use the advantage of multimodal transportation (Lam et al., 2018: 413).

2.2.1. Port investment of Maritime Silk Road

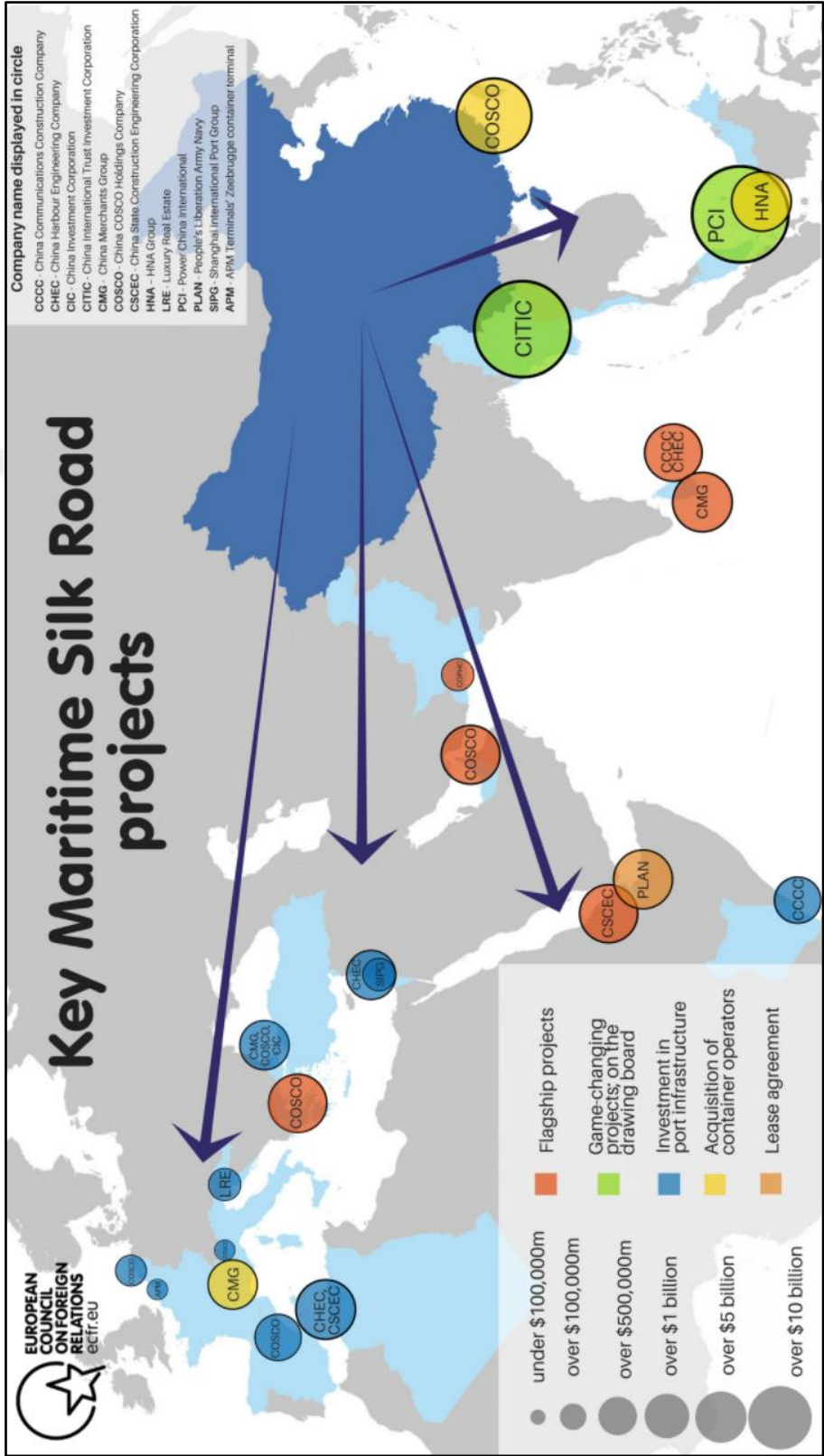
Many significant projects such as acquisitions of shipping companies all over the world, financial support of port management, and port infrastructure constitute a giant initiative that is called MSR across the European region, East Africa, and the MENA area. Figure 52 shows that flagship projects, game-changing projects, investments in port infrastructure, acquisitions of container ports, and lease agreements of the MSR initiative relate to the Chinese government and companies. Especially, China Communications Construction Company (CCCC), China Harbour Engineering Company (CHEC), China Investment Cooperation (CIC), China International Trust Investment Cooperation (CITIC), China Merchants Group (CMC), China COSCO

Holding Company (COSCO), China State Construction Engineering Corporation (CSCEC), HNA Group (HNA), Luxury Real Estate (LRE), Power China International (PCI), People's Liberation Army Navy (PLAN), Shanghai International Port Group (SIPG), APM Terminals Zeebrugge container terminal (APM) are part of different MSR investment projects all over the world. Port investment initiatives have been managed along the direction of the MSR by five giant Chinese Terminal Operators called Qingdao Port International (QGGJ), Hutchison Ports (HPH), Shanghai International Port Group (SIPG), China Merchants Ports (CMP), and COSCO Ports at France, Netherlands, Greece, Belgium, Spain, Morocco, Turkey, Egypt and Israel (Duchâtel and Duplaix, 2018: 14).

Official MoUs (Memorandums of Understand) reports indicate that China's willingness to create massive hard infrastructure projects such as bridges, roads, airports, dams, port infrastructure, electrical transmission lines, power plants, railways, mines, warehouses, pipelines, industrial parks, and special economic zones. On the other hand; phytosanitary accords, dispute resolution courts, custom clearance, bilateral investment treaties, different kinds of trade agreements to transport more flows of goods, Memorandums of understanding for educational training and exchange, services, and money constitute the soft infrastructure part of the Beijing's initiative (Blanchard, 2018a: 61-65).

Cosco Shipping is one of the most important terminal operators that control the container terminal of the Suez Canal in Egypt. CIC Capital Corporation and China Cosco Shipping purchase 65% of the tenancy right of the Kumport terminal in Turkey (Ambarlı). Chinese companies also have approximately €1bn container terminal investment in Venice. China Cosco shipping also invests heavily in Piraeus port that a crucial part of the MSR on the European side. Duqm port in Oman, Mombasa, and Lamu port in Kenya (Djibouti) has been developed as container ports by the Chinese

Figure 52: Key Maritime Silk Road Projects



Source: Duchâtel and Duplaix, 2018: 15

government and companies that's why Beijing intends to increase its influence in the African region (Van den Bosch, 2018).

Maritime is a crucial subject for Chinese authorities hence government of China gives importance blue economy to develop its country that is why China's blue economy is approximately growing % by 7.5 every year. The most critical part of this development is this maritime development boosts the Chinese GDP average of 10 percent annually and Beijing plans to increase this rate to fifteen percent between 2021 and 2035. Ninety percent of Chinese goods transported by sea and sixty percent of the total value of transportation were realized by seaway therefore maritime transportation especially ports has crucial importance for Chinese companies and the government. Beijing intends to control ports along the MSR route which is why Chinese companies seek ownership of MSR ports and others. Not only Chinese government control ports in that direction of the MSR but also they aim to control transit channels such as Suez and Malacca. Chinese state-owned companies and local authorities invest abroad in ports such as Gwadar, Kyaukpyu, Kuantan, Obock, Melaka Gateway, Hambantota, Muara, and Feydhoo Finolhu between 2013 and 2017 (Table 7).

Table 7: Chinese Seaport Ownership in the Indian Ocean and the South China Sea between 2013 and 2017

Year	Region	Host state	Port	Lease period
2015	South China Sea	Malaysia	Kuantan	60 years
2015	Indian Ocean	Myanmar	Kyaukpyu	50 year
2015	Indian Ocean	Pakistan	Gwadar	40 years
2016	South China Sea	Malaysia	Melaka Gateway	99 years
2016	Indian Ocean	Djibouti	Obock	10 years
2017	Indian Ocean	Maldives	Feydhoo Finolhu	50 years
2017	South China Sea	Brunei	Muara	60 years
2017	Indian Ocean	Sri Lanka	Hambantota	99 years

Source: Ghiasy et al., 2018: 6

Investment at these ports will help the expansion blue economy strategy of the Chinese government. China's coastal areas may connect with the hinterland of these significant ports such as Kyaukpyu in Myanmar and Gwadar in Pakistan. The Chinese terrestrial economy will have been boosted with the help of these ports that interact with the Chinese economy the develop under-developed areas in China (Ghiassy et al., 2018: 6).

State-owned companies of China heavily invest in ports between Asia and Europe along the route of the MSR. Gwadar, Hambantota, Colombo, Malacca, and Piraeus are significant ports that are invested in by Chinese companies. International reports show that approximately sixty-five percent of the top 60 container ports received investment to some degree by Chinese initiatives in 2015 (Len, 2017: 41-53). The red circle in figure 53 shows that Chinese port investment has a share of these ports by Chinese investors, constructed or managed by Chinese state-owned companies or private institutions. Yellow circles indicate that Chinese entrepreneurs are interested to invest in ports soon and blue ones show that the ambition of MSR is true. MSR initiative focuses on the Gulf area (UAE) which has many significant key port locations in terms of increasing the connectivity rate of the MSR with an investment of about \$300 million. Not only the Gulf area is significant for Chinese authorities but also Yemen, Israel, Djibouti, Algeria, and Egypt will get more importance shortly with the effect of the development process of the MSR which is why China's state-owned companies intend to take a share or manage all ports in the direction of this enormous initiative. Especially, Djibouti has the potential that may be the overseas logistic base for Chinese companies (Nouwens, 2019).

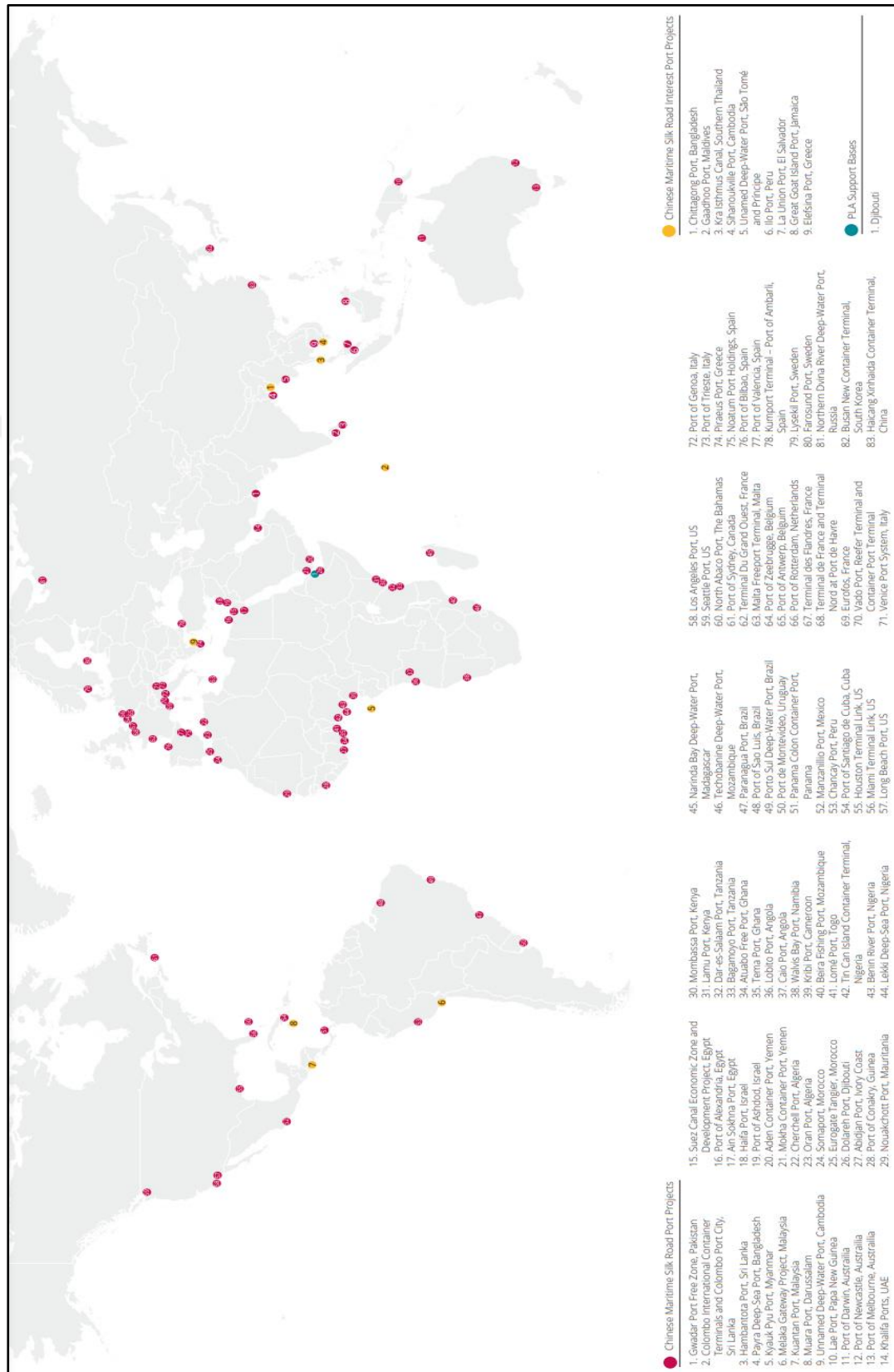
Hambantota port is an example of a dep-trap policy of the Chinese government that take equity rights of the port for 99 years since December 2017. The economic return of the port is low hence; Sri Lanka authorities are concerned about the possibility of the Hamnontata port could be a naval base (Hillman, 2018). Gwadar port has crucial importance for both China and Pakistan to develop China Pakistan Economic Corridor (CPEC). Interaction between Chinese authorities and Pakistani authorities increased with the help of the MSR initiative both politically and economically. The two other biggest ports in Pakistan have no area to expand therefore Chinese investors focus on Gwadar port to handle approximately one million tons of

cargo and transport significant industrial materials and oil annually. From the perspective of other significant actors such as India and the USA, this port development worries about Chinese maritime extension in the Indo-Pacific area (Gurmeet, 2018). India is apprehensive about Chinese ports expansion hence Indian government intends to develop Chababar Port in Iran against the Chinese initiative in the region (Pant, 2018: 2-4).

MSR ports investment on the European side is cover Greece and Italy however, China Ocean Shipping Company purchased stakes in ports of the Netherlands and Turkey. One of the significant port container terminals Noatum (Spain), a significant share was purchased by COSCO, forty-nine percent of France's terminals were purchased by China Merchant Holding International Limited (one of the significant Chinese investors in terms of MSR port acquire). On the other hand, there is no clear evidence that these ports are part of MSR however; the MSR initiative will affect the many ports whether ports are part of the route or not (Nouwens, 2019).

Piraeus port is the center in Europe to control MSR transportation flows however, the Noatum Port acquisition was a very significant move to connect east (Piraeus) and west (Valencia) by Cosco Shipping. Controlling Spain's main terminal operator helps Cosco achieve the complete connection between Valencia which is the state's first container port and Bilbao which is giving short sea shipping services to Northern Europe and Rotterdam. In addition to inland terminals of Zaragoza and Madrid will be part of this interaction with the help of Chinese companies. A recent interest of Chinese investors in Italian ports such as Genova and Trieste may complete the European picture of the Northern Mediterranean (Haralambides, 2020: 11). China Ocean Shipping Company starts to purchase a share in Piraeus port in 2010 and the majority stake of the Kumport, which is Turkey's third-largest container terminal, was purchased by Cosco holding to integrate MSR transportation flow within European countries. Sixty-five percent of Chancay port, twenty percent of Antwerp Gateway, and forty percent of the Noatum Container Terminal also were purchased by Cosco holding. The Coast of the Bay of Bengal has significant importance to the Chinese

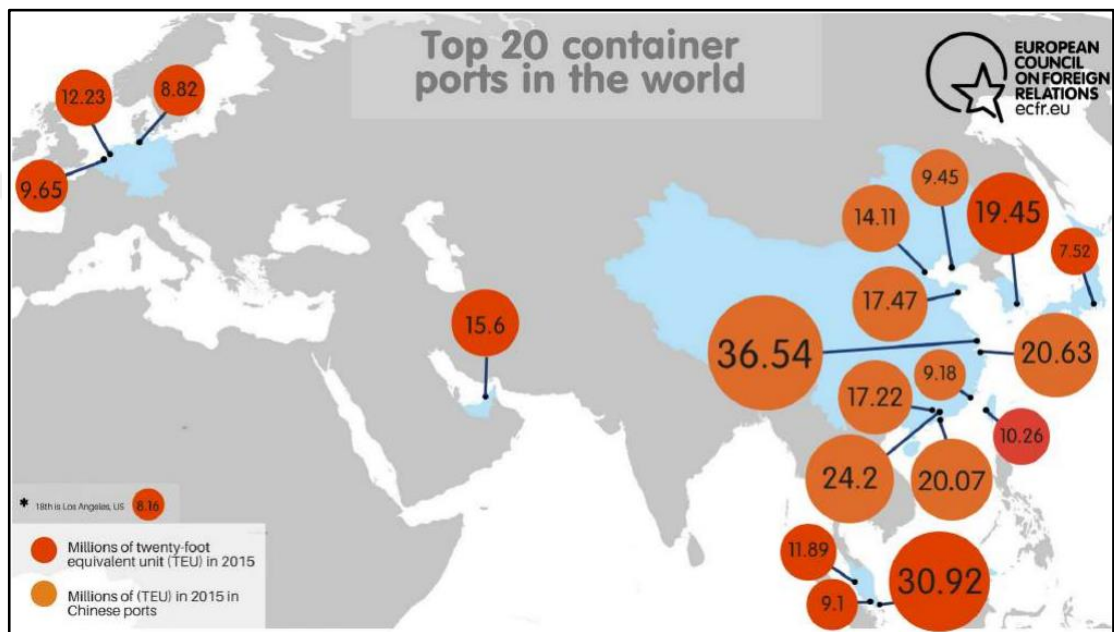
Figure 53: China's Global Port Ambitions: Chinese Company Construction and Investments



Source: Nouwens, 2019

companies, therefore, Chinese private companies signed an agreement with the Myanmar government to construct a \$2.7 billion area in SEZ (Special Economic Zone) for industrial use. Stated-owned firms of China have reached an agreement with the government of Myanmar for about 7.3 billion dollars to construct a deep-water port (Hillman, 2018).

Figure 54: Top 20 Container Ports in the World



Source: Duchâtel and Duplaix, 2018: 17

Due to political problems, some Chinese state-owned companies or private institutions encounter agreement issues related to port investments or port infrastructure investments. Huge container ports that have high capacity cargo handling annually are not a matter of only economical approaches at the same time these ports face many political and diplomatic challenges with the effect of foreign investors (Figure 54). The growth strategy of the MSR affects foreign policy decisions in investment ports of the initiative such as Greece, Sri Lanka, Pakistan, and India. European Union was concerned about the Chinese huge project, however, Greece accepted Chinese intervention with the Cosco acquisition of port Piraeus (Duchâtel and Duplaix, 2018: 16).

Table 8: Chinese Acquisitions of EU port infrastructure

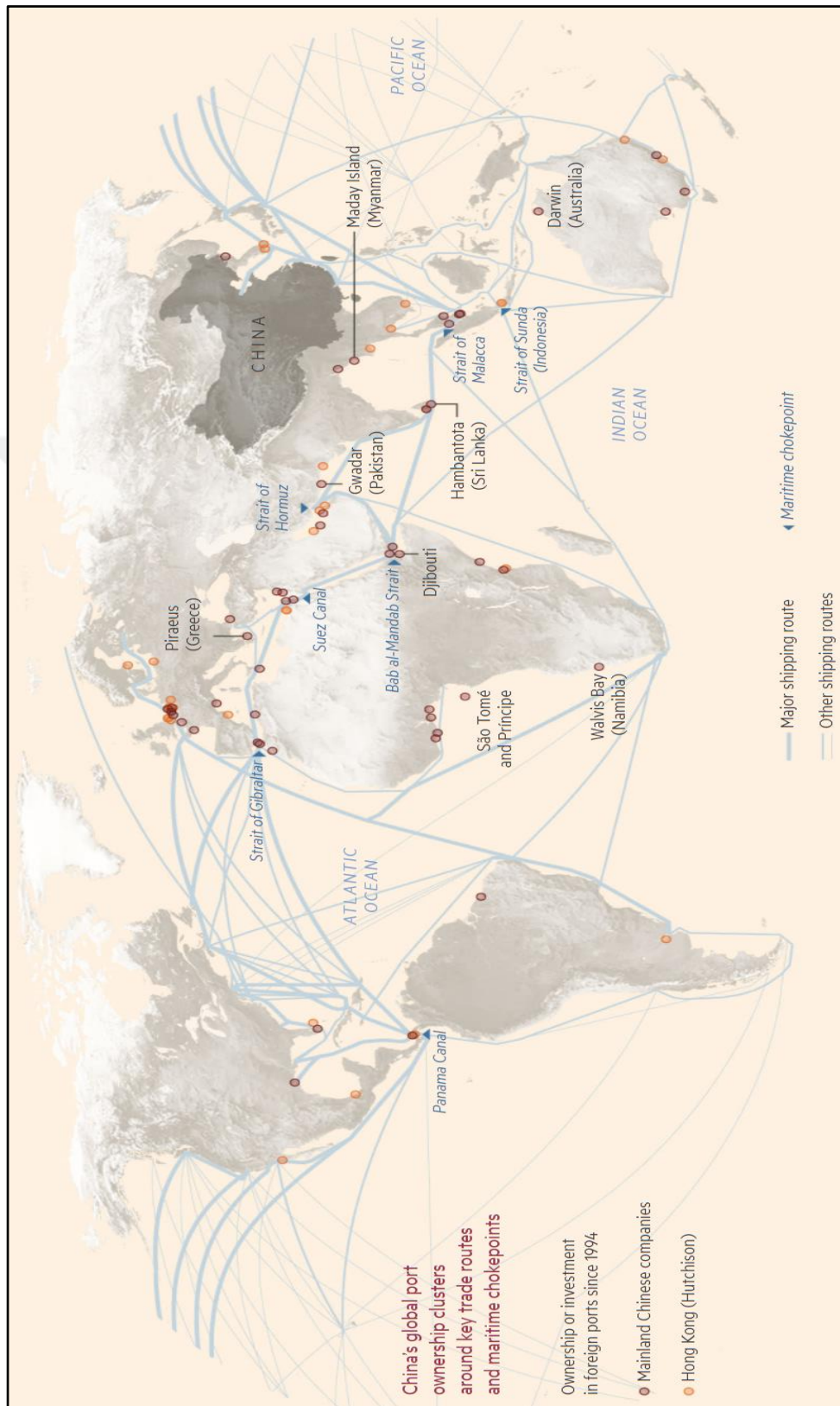
Port	Year	Asset	Acquiring firm	Stake	Value €
Antwerp (BE)	2004	CT	COSCO Pacific	25%	133.9 million
Piraeus (EL)	2008	CT	COSCO Pacific	35-year lease to operate two piers	4.3 billion-plus upgrading investment
	2016			51 %	280.5 million
	2021			16%**	88 million
Marseilles (FR)	2013	CT	China Merchant Group International	49% of Terminal Link	400 million
Zeebrugge (BE)	2014	CT	China shipping, in 2016 merged with COSCO	24%	n.a.
	2017	CT	COSCO shipping	76%	35 million
Rotterdam (NL)	2016	CT	COSCO shipping	35%	143.3 million
Vado Ligure (IT)	2016	CT	COSCO/Qingdao Port International	40% and 9.8%	53 and 15.5 million
Bilbao (ES)	2017	CT	COSCO shipping	51% Noatum Port	203 million
Valencia (ES)		CT			
Madrid (ES)		rail port			
Zaragoza (ES)		rail port			

Source: Grieger, 2018

Minor share acquisition of port was a basic foreign direct investment model for Chinese investors. COSCO holding holds only a few port's majorities of share such as eighty-five percent of Zeebrugge port, a hundred percent of Piraeus port, fifty-one percent of Valencia port, and ninety percent of Abu Dhabi port. Port of Vado Ligure, Port of Rotterdam, Port of Marseilles, and Port of Antwerp could not have been purchased the majority of the port stake due to political and regional reactions to Chinese port investments by local authorities (Table 8) (Duchâtel, 2019: 1-2).

Gwadar port is an energy transport jugular from the Chinese perspective hence several significant port investments and other transportation route initiatives start from

Figure 55: China's Global Port Ownership Clusters around Key Trade Routes and Chokepoints



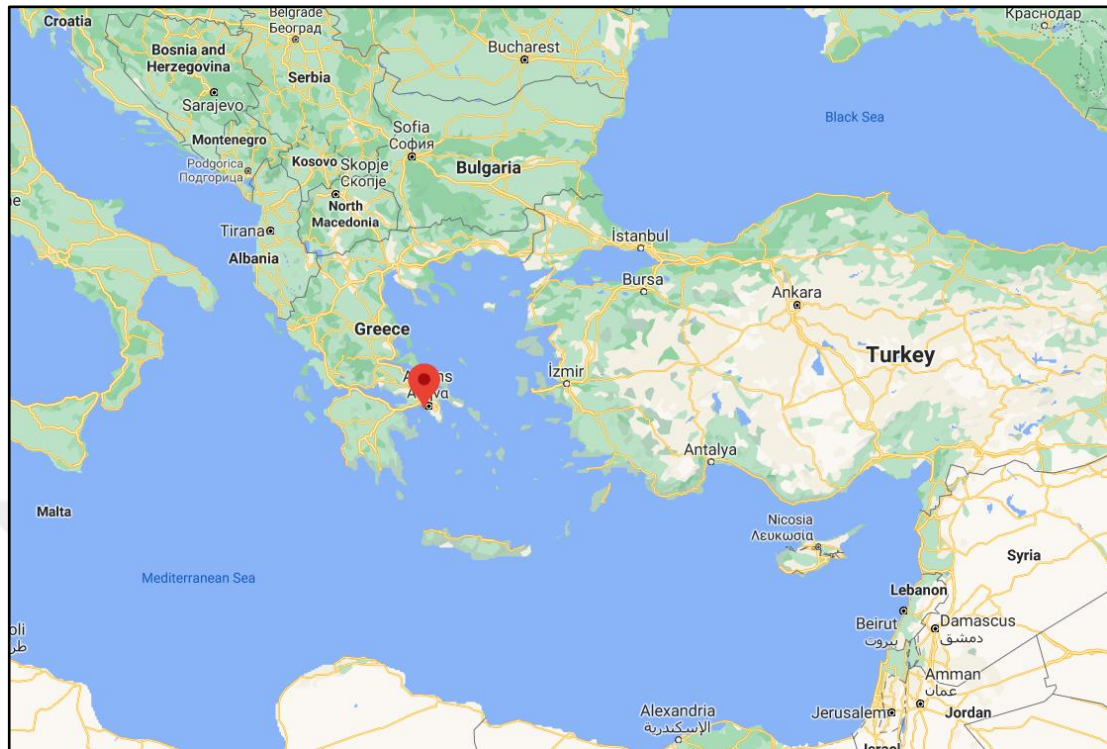
Source: Kynge et al., 2017

one of the significant Pakistan ports of Gwadar. Pakistan and China have a great relationship regarding the MSR initiative and many expert claims that this economical relationship may evolve the military cooperation in the region, however; Beijing and Islamabad deny this kind of allegations. Chinese port investments' main idea is protecting it is energy transport route and influence all ports along the route of MSR that is why the Suez Canal is crucial for the MSR initiative and Chinese and Hong Kong companies. Figure 54 shows that the Strait of Malacca on the route of MSR and Chinese both energy and commercial transportation directions. To increase influence in the Indian Ocean area and MSR route, port investment of Chinese companies focus on Sri Lanka (Hambotata), Pakistan (Gwadar), and the Strait of Malacca with the help of port infrastructure investments. As mentioned before Piraeus is on the MSR route that is part of the European project concerning the increased interaction between European markets and Chinese markets (Figure 55) (Kynge et al., 2017).

2.2.2. Importance of Piraeus Port

The destination of the port of Piraeus is so strategic with respect to the junction point of Asia Europe and Africa maritime trade routes. Chinese state-owned companies and private institutions give more importance to this European port than any port in the region since it is an opportunity to become the center port for MSR trade flow in terms of the logistics hub of Europe (Figure 56). Chinese PCT Cosco Holding is the fifth largest terminal operator that purchased the Piraeus terminal and agrees with Greece authorities regarding the approximately 23.986 m² free trade zone inside the port hinterland. Chinese investors not only have the advantage of a position of the port Piraeus but also they will not give any taxes or duties to sell their goods from Beijing to European countries such as France, Germany, United Kingdom, Spain, and Italy in respect to the MSR transportation mechanism with the help of free trade zone (Vassilopoulos, 2016).

Figure 56: Location of Piraeus Port



Source: Google maps(a), 2021

The economic crisis affected Greece more than any country in the European Union hence Chinese investment seems like a rescuer for the country to economic rectification. Due to the need for foreign direct investment, the first, the Greece authority sells a significant part of the port and then transfers all terminals to Cosco shipping. Piraeus port gives Chinese companies to make a move in the European goods and transport market which is why port Piraeus has so much significance from the perspective of Chinese authorities. This port not only allows transporting cargo from west to east but also has the potential to be the main transshipment hub in the area of the Mediterranean (Van der Putten et al., 2015: 9). Port of Piraeus container traffic shows that after the investment of the COSCO shipping, the performance of the port has increased dramatically and this development affects the Chinese image positively in the European area with respect to the current negative image of Chinese investors (Yang et al, 2018: 190-204).

2.2.3. Terminal Operators at Maritime Silk Road

Terminal Operators are not only accepted as a businessperson but also they have potential the to influence their investment area politically. Their port investment amount and factor that the importance of the ports for developed and under-developed countries give terminal operators economic and strategic power to move in the area that they invest. China Cosco Shipping, Hutchison Ports and China Merchant Ports are Chinese terminal operators that are among the top ten port terminal operators in the world maritime trade (Table 9). The internationalization stage of the Chinese operators is relatively low, however, their development speed was fast, and Nowadays, their shares and effect increase more than before in the world port's stake with the help of the MSR initiative. Especially, Chinese terminal operators such as Cosco Shipping, China Merchant Ports, and Hutchison Ports acquisitions share many ports along the MSR route (Wang et al., 2019: 2).

Table 9: Global Terminal Operators' equity-based throughput League Table

Ranking 2019	Operator	Volumes 2019 (teu)
1	PSA International	60.4m
2	China Cosco Shipping	48.6m
3	APM Terminals	46.8m
4	Hutchison Ports	45.7m
5	DP World	44.3m
6	China Merchants Ports	41.5m
7	Terminal Investment Limited (TIL)	28.8m
8	ICTSI	10.1m
9	CMA CGM *	8.3m
10	SSA Marine	8.3m

Source: Lloyd's List, 2020

Chinese companies invest approximately 11 billion dollars in overseas ports in the past decade. Strategic logistics hubs and significant ports of the MSR trade route were purchased by international Chinese port operators or other Chinese investors. Port investments data show that twenty-five port projects in eighteen countries were invested by Chinese enterprises from December of 2010. Cosco Group and China Merchants Group are the main actors for Chinese foreign direct investments in terms of Port acquisition and infrastructure investments.

Cosco shipping takes a stake of 51% of Piraeus port in 2016 and becomes an important player in Europe. The Greek government and Cosco agree to an additional infrastructure investment of about 665 million dollars. Cosco follows the MSR initiative route and intends to take a shared stake in all ports in the direction of the MSR route regarding port management and acquisition that is why nine port projects were constructed by Cosco with respect to the new developments of the MSR between 2013-2021. On the other hand, China Merchants Group spends approximately 995 billion dollars on the acquisition of ten terminals in Europe, Asia, and other specific regions (Figure 57).

Figure 57: Cosco and China Merchants Group port Investments in Route of MSR



Source: Watanabe, 2020

Cargo volumes of investment ports increased significantly in 2018 with the effect of the MSR transportation. Ten ports that acquisition by Cosco and China Merchants doubled their cargo volume comparing the early stage of 2018. Cosco's

holding gets strong every year by taking stake ports worldwide. Two significant shipping companies were merged by Cosco Holding and concerning the 2019 information, it is the second-largest terminal operator in world trade. Fifty-five port investments of Cosco holding make a profit for the company's budget. Approximately 280 billion yuan (\$40 billion) were gained by COSCO equals an increasing twenty percent of growing the comparing last year's annual profit. Cosco and China Merchant group has a close relationship with the Chinese government with respect to the MSR port management and port infrastructure investments (Watanabe, 2020).

Whether the project has the potential to be realized Chinese ambition or not, member countries of the MSR will get new investments with the help of Chinese terminal operators and companies that will increase the capacity of maritime trade along the route of MSR. Developed and underdeveloped countries may take advantage of the MSR initiative port management and infrastructure investments to boost their economical transportation network among the participants of the MSR countries and neighboring states. Cosco is the main terminal operator that invests in many ports at the same time with a great amount of stake such as 47.50% Rotterdam, Gwadar, 40% Puerto Vallo, 50% Naples, Caliph, 51% Singapore, 20% Said, 25% Antwerp Port, 65% Kumport, 69% Piraeus between 2004 and 2016 (Table 10) (Chen and Yang, 2018: 174-189). China Merchant Group and Cosco made a great profit in 2018. Cosco holding handled approximately 118 million TEU at different thirty-six ports that equal combined container transportation of Shenzhen, Shanghai, Ningbo, and Singapore (Duchâtel, 2019: 1-2). Whether the Chinese government and companies give importance to Europe and the Mediterranean more or not will not change the fact that Africa will be a key location for maritime transportation. China Merchants agreed with the administrative side of Bureau port that one of the significant ports in Africa. Share of the 23.5% Djibouti port was purchased by China Merchant about 185 billion dollars' worth in 2012 (Table 10). There is great potential for Djibouti port that may be an international shipping hub with the help of COSCO shipping at infrastructure investment and link up important international trade routes (Sun and Zoubir, 2017: 35-47).

Table 10: Port Projects along the MSR with Chinese Port Operators

Country	Port Project	Company	Shareholding	Year
Netherlands	Rotterdam	COSCO	47.50%	2016
Sri Lanka	Colombo	CMHI	85%	2011
	Hambantota	CMHI	64.98%	2014
Djibouti	Djibouti	China Merchants	23.50%	2012
Israel	Haifa	Shanghai Port	Franchise	2015
Panama	Panama	Land bridge Group	Franchise	2016
Pakistan	Gwadar	COSCO	Land use rights	2015
Italy	Puerto Vallo	COSCO	40%	2015
	Naples	COSCO	50%	–
United Arab Emirates	Caliph	COSCO	Joint operation	2016
Singapore	Singapore	COSCO	49%	2016
Malaysia	Guantan	Beibu Gulf Port Group	40%	–
Myanmar	Madeleine Island	Petro China Co Ltd.	50.90%	–
Egypt	Said	COSCO	20%	–
	Egypt	ChEC	–	2015
	Damietta	ChEC	–	2015
Belgium	Antwerp Port	COSCO	25%	2004
	Zeebrugge	Shanghai Port	25%	2014
France	Terminal Link	China CMHI	49%	2013
Turkey	Istanbul	CMHI COSCO	65%	2015
Greece	Equity transfer	COSCO	69%	2016

Source: Chen and Yang, 2018: 174-189

2.2.4. Relation between String of Pearls and Maritime Silk Road

The ‘String Pearls’ phrase was first mentioned in 2005 by the United States defense secretary. They claim that this was a Chinese strategy that China stretched itself from the Mediterranean to Southern China region. The meaning of the ‘pearls’ is a naval base and these naval bases' possible locations are Sri Lanka, Pakistan, Myanmar, Bangladesh, and the Maldives. String Pearls aim to protect oil shipment and strengthen Chinese overseas influence (Figure 58). The Chinese government intended to secure a trade route along with the ‘string pearls’ theory. Some experts claim that ‘pearls’ are meant for ports that not only points will be the naval base but also Chinese authorities seek to construct new ports or purchase stakes of current ports in terms of maritime transportation. From the Indian perspective, one of the significant aims of these initiatives is encircling India and the Indian Ocean to weaken the Indian government (Bozhev, 2019)

Figure 58: String of Pearls Route



Source: Lahkar, 2020

MSR direction and ‘String of Pearls’ route are the same hence opposition claims against China with respect to the Indian Ocean policy look true. Port of Gwadar, Port of Hambantota, Port of Chittagong, Port of Kyaukpyu, Port of Cambodia, and

Port of Hong Kong are part of MSR as same as ‘string pearls’ (Chung, 2018: 315-332). It is hard to separate the Maritime Silk Road and the ‘string of pearls between each other. One of the unobvious aims of the MSR and ‘String of Pearl’ is reduced to Indian influence in the region and Indian Ocean area which is why China cooperates with Pakistan both economically and militarily (Bozhev, 2019).

2.3. DIFFERENT PERSPECTIVES ON MSR

MSR's initiative takes the attention of policymakers and academics all over the world, several countries see the project as a great opportunity to develop their own countries economically, on the other hand, many countries have a negative attitude towards the initiative (Blanchard, 2017: 246-268). In a detailed literature review of countries' policies through the MSR initiative, six different perspectives are popular in the MSR perspective. Indian, African, South Asian, Russian, American, and European perspectives of MSR were explained in the next sections (Table 11).

Table 11: Different Perspectives towards MSR in terms of Their Approach

Region/Country	Approach
Indian perspective	Negative
African perspective	Positive
South Asian perspective	Negative
Russian perspective	Positive
American perspective	Negative
European perspective	Negative

Source: Author's own elaboration

2.3.1. Indian Perspective

India has a similar concern about MSR with other member countries or states that are against the initiative. The top two concerns about the MSR project are debt-trap policy and the Chinese much more influence in the region to control transportation networks in South Asia, the Mediterranean, Africa, and Europe. The Indian government did not have a negative perspective on the sea part of the OBOR in the beginning however some port infrastructure projects and Chinese relations with other countries in the Indian Ocean area and MSR participants changed the Indian policy about MSR in a negative perspective (Palit, 2017a: 292-309). China has security concerns about the implementation MSR initiative however, India has security issues related to Chinese naval and regional policy. Every country tries to protect its interest hence India is right to defend its interest in the region economically in terms of profitable agreements with neighboring countries. Some Indian scholars express that the Chinese intention regarding MSR is not clear and the Indian government has no idea what will Chinese government do in the next move in regards to the economic and political development of the MSR initiative. One of the main concerns of the Indian perspective is the naval extension of the Chinese government to encircle India in the Indian Ocean area (PTI, 2018). China-Pakistan Economic corridor was the flagship of the MSR hence India has a concern about Pakistan-China relation in terms of Kashmir region territorial sovereignty that Indian government think that it's a region illegally occupied by Pakistani authorities. Indian authorities claim that Beijing does not intend to answer Indian concerns about the MSR initiative however Indian government is willing to open dialogue with its Chinese counterpart (Palit, 2017a: 292-309).

2.3.2. African Perspective

Africa is one of the great continents that need infrastructure investment all over the world hence African government and people welcomed every investment opportunity. MSR is a great development possibility for African coastal cities such as Djibouti, Bizerte, Dar es Salaam, Bizerte, Tema, Bizerte, Maputo, Mozambique,

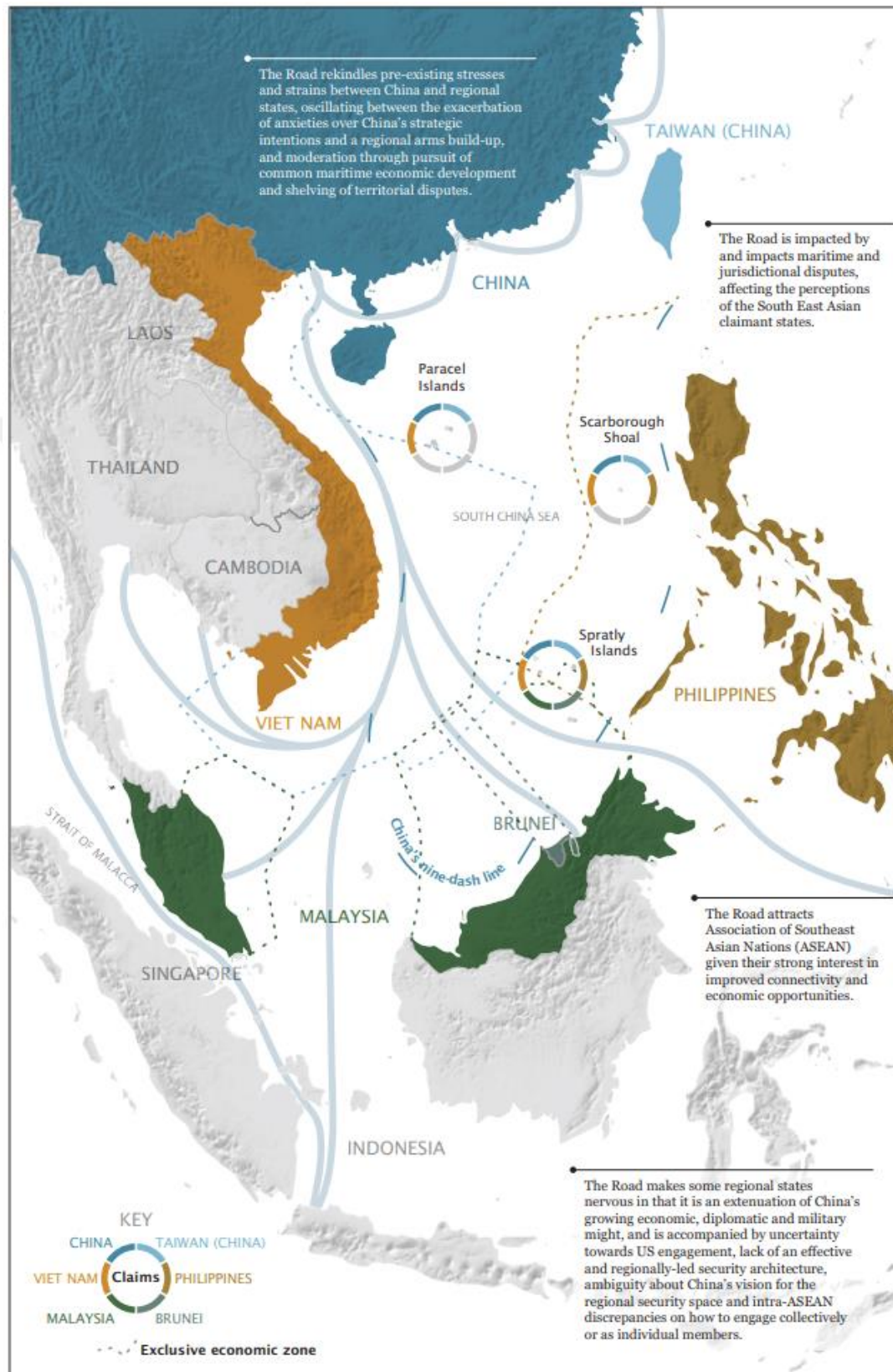
Libreville, and Tema. These will be significant cities along the route of the MSR between Africa and Asia in terms of exchanging manufacturing commodities and goods. Not only port infrastructures are important for African countries but also every transportation investment is needed for countries to connect to international transportation networks that is why the Chinese government invests in different transportation infrastructures heavily without any negative comments from African people and authorities. Chinese long-term investment plans will help the underdeveloped African country's development processes such as Mozambique, Senegal, Gabon, Ghana, Tanzania, and Djibouti. Cooperation between the Chinese government and African countries will be an advantage for both sides in terms of becoming a part of the MSR initiative (Koboević, Ž, et al., 2018: 113:122)

2.3.3. South Asian perspective

From the perspective of MSR, there is great cooperation between the Maldives, Sri Lanka, Pakistan, and China. These countries are major trade partners of China in the South Asia region. Pakistan is the most significant country to develop MSR in terms of collaboration among the member countries. The Economic Corridor of the China-Pakistan route is the pioneer of the MSR projects in the development process of South Asia to integrate different transport modes in the direction of the MSR route. Despite the China-Pakistan Economic corridor focus on a road network, one of the main purposes of the transport projects is to ensure the connection between the sea route and the road network in the area with the help of the Gwadar port transport infrastructure initiative. 'Colombo Port City project is a great example of the agreement between China and Sri Lanka to improve MSR initiative development in South Asia (Koboević, Ž, et al., 2018: 113-122).

South China Sea issue is a significant problem among the South Asian states and China hence MSR may help solve this territorial sea dispute (Figure 59). MSR route links to the SCS dispute area to reach Europe (Ghiasy et al., 2018: 11). China intends to fix its relationship with these countries to increase economic development in the region. South Asian countries indicate that there is security concern about

Figure 59: Map of the South China Sea illustrating MSR Security Implications



Source: Ghiasy et al., 2018: 18

Chinese ambition in the region economically, politically, and militarily (Hui-Yi, 2016: 63-95). There is no doubt that MSR will face questions about South Asian countries in terms of new transport projects (Chen, 2018: 344-361), however, China may use these developments to reduce USA's influence in the region with respect to finding a compromise among the contracting countries (Kayambe, 2017). China wants to be a military power

in the region and Asian countries intend ensure protect their country and territorial waters (Blanchard, 2018: 329-343). From the perspective of ASEAN, asymmetrical power between China and member countries could increase in regard to the success of the MSR initiative (Len, 2015: 1-18) however, there is an urgent need for the transport infrastructure development process of the MSR initiative from the point of the participating countries of MSR. Not only the connectivity of transport modes, power cyberspace, and telecommunications systems will increase but also soft environments such as market regulations, customs clearance, and standard-norm settings will be improved in the China and South Asia countries. The official starting point of the MSR is China and South Asia coastal areas therefore, ASEAN countries have importance from the side of the Chinese government. Malaysia's strategic position could be advantageous and disadvantageous through the diplomatic relation between the governments of China and Malaysia. The Strait of Malacca is one of the busiest trade chokepoints in the world and it is very crucial for the MSR project located at the center of ASEAN member countries (Yeoh et al., 2018: 298-307). China should solve critical problems related South China issue to complete the MSR initiative completely (Chan, 2015: 1-3).

2.3.4. Russian Perspective

Russia is one of the main actors in Asia and in every substantial project that does no matter which country involve, the Russian role is significant, especially, in China and India the region. Russia has a positive attitude about the MSR initiative hence Chinese investments and relations with other countries get better with the help of cooperation between China and Russia. Exploration of the Arctic and development of the 'Northern Silk Route' could be the main collaboration areas among these world powers in near future (Wei, 2016: 59).

2.3.5. American Perspective

United States is outside of the originally Maritime Silk Road route however it will be a connection through other routes to MSR passage. One of the most significant aims of the USA in the Indo-Pacific region is reduce to China's influence in the region in terms of economy and politics. Even though The Trans-Pacific Partnership was a supporter organization of the USA China was against the policy in the region, and the USA withdraw from the organization. MSR initiative may affect the economic relations between the USA and other countries in South Asia and beyond negatively. China is the second world power in the world therefore, the USA wants to keep China's government influence in a limited area. Based on the challenge between the two world power, not only does the USA has policies to reduce China's influence in the region but also China invited the Caribbean and Latin American countries to join MSR and Economic Belt the initiative to increase its's influence in America's backyard. High-ranking American military personnel indicates that MSR and land part of the project could be a security problem for the United States soon in terms of cooperation between USA partners and put at risk communication networks (Szechenyi et al., 2018: 1-32).

2.3.6. European Perspective

Cooperation between the European countries and China may help the inter-modal connectivity between the Eurasian rail network and EU ports. The Maritime Silk Road initiative will reshape the international transport routes along the west-east direction. Many European countries are against Chinese investments in their region, therefore, there are strict regulations to block Chinese companies' initiatives however Cosco shipping succeed to take a hundred percent of the Piraeus port. The EU strategy on China's government examines the principles of China-EU relations, involving infrastructure collaborations that seek mutual benefit between the TEN-T (Trans-European) transport networks. These principles cover reciprocity, transparency, and adherence to global standards, i.e. a level playing field for Chinese and EU companies in the China and European Union area. Infrastructure projects and other investments of Chinese companies must meet European Union internal market regulations on

technical standards and public procurement. Despite China having many initiatives in the European region, environmental, sustainability, and social assessments were controlled by EU authorities for the Chinese government and private firms continuously. European Union and China organization's collaboration areas are infrastructure projects, logistics, financing, railway links through Eurasia, interoperability, and maritime trade (Haralambides, 2020: 14).



CHAPTER THREE

BELT AND ROAD INITIATIVE IN TURKEY

3.1. ROLE OF TURKEY IN BELT AND ROAD INITIATIVE

Turkish policymakers try to take a big enough piece from this tremendous transport project therefore Turkish government wants to be part of the OBOR initiative. Turkey and China signed a memorandum of understanding in 2015 to create different transport alternatives in OBOR routes and the middle economic corridor of the project. One of the significant reasons why the Turkish government wants to join the project is the vast amount of trade flow between the EU and China. Turkey will try to be a logistic hub for the middle side of the economic corridor and export markets of the OBOR Initiative. Chinese companies intend to invest in OBOR members therefore foreign direct investment is another important aim for the Turkish side (Inan and Yayloyan, 2018: 7). Turkey has a geostrategic location and the shortest trade route between China and the EU is passing through Turkey. Turkey could be a logistic hub for the middle corridor, which links East and West which is why many companies intend to invest in Turkey. Based on economic power in the economic corridors in the OBOR initiative, Turkey is one of the strongest economic power in the middle corridor which is why Turkey's government's bargaining positions to guarantee its benefits are taken into account apart from the Chinese government's ambition (Bashir, 2018).

Turkey is a member of the China-Central Asia-West Asia Corridor and China intends to invest approximately eight trillion dollars which could be up to forty billion dollars for transport infrastructure. Turkey will be the main player in this corridor's success therefore China and Turkey's relation getting closer concerning mutual benefits (Esmer, 2017). Turkey seeks to create a balanced policy between the east and west however current developments of the world era, may orient turkey policymakers to east strategic opportunities such as Silk Road Economic Belt and Maritime Silk Road projects. From the perspective of the Turkish government not only commercial and economic gain is significant but also close ties between Turkey and China will ensure the strategic and geopolitical impact on world politics both on the global and regional scale (Dal, 2017).

Turkey should play a major role in the Middle corridors of the initiative with respect to creating regional cooperation between member countries of the OBOR that is why the Turkish government has a good relationship with China regarding sticking points between the two countries (Figure 60). Entrepreneurs, policy-makers, and researchers should concentrate on the SREB and MSR part of the project to create new initiatives related to these tremendous projects in Turkey (Kulaklıkaya, 2013: 1-7).

Figure 60: Position of Turkey in the China-Central Asia-West Asia Corridor



Source: SC, 2019

From the perspective of the mutual benefit motto of the OBOR, Turkey's role could be bigger than the authorities expected. Route of the middle corridor connects significant regions such as the Mediterranean, Black Sea area, and Northside through the Caspian region in the East hence as a developing country, Turkey could show its influence in the region with the help of the initiative (Devonshire, 2018). On the other hand, the instability of Turkey's economy poses a risk factor for investment in Turkey which is why the Turkish government gives many opportunities to different foreign investors in their country. Turkish risk measure scores show that financial risk has 50 scores and infrastructure risk of Turkey has 41 scores (Table 12). Chinese and other investors examine these data before their investments; overall assessment, security risk, political stability risk, government effectiveness risk, legal&regulatory risk,

macroeconomic risk, foreign trade& payment risk, financial risk, tax policy risk, and labor market risk therefore Turkey should focus on their economic policies to fully integrate to MSR initiative and road site of the project (Koepp, 2016).

Table 12: Turkey risk Measures Scores

Overall assessment	51
Security risk	54
Political stability risk	70
Government effectiveness risk	68
Legal&regulatory risk	48
Macroeconomic risk	50
Foreign trade& payment risk	32
Financial risk	50
Tax policy risk	38
Labor market risk	57
Infrastructure risk	41

Source: Koepp, 2016

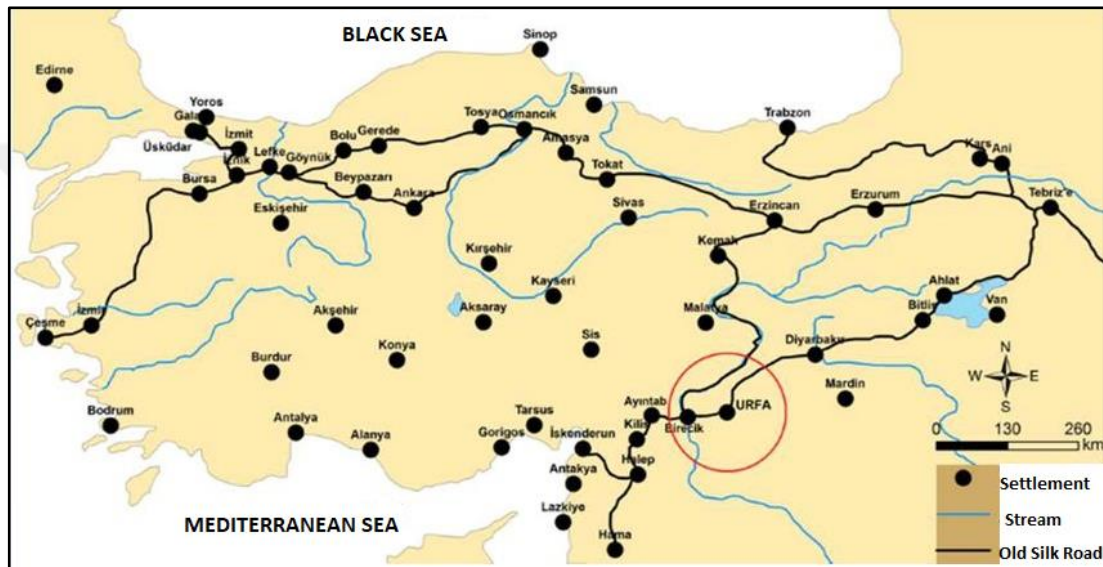
3.1.1. Historical Background of the OBOR from the perspective of Turkey

From the past to today, the geographical position of Turkey has been important for world economic and political developments. Approximately ninety-five percent of Turkey's territorial area is called historic Anatolia covers the many important Silk Road cities (Figure 61). Economic and cultural interaction always exist with the help of the Ancient silk road in the area which is why the Turkish government intends to reinstate the glorious empire times in terms of the New Silk Road investments (Bashir, 2018).

Western Han Dynasty was the first country that used this trade route between east and west for cultural exchange and economic purposes. Due to its strategic geographic location, Turkey (Anatolia) is a bridge between the West and East since ancient times. Many directions of the Old Silk Road were passing through Anatolia to reach Europe which is why this route has importance to Turks. Before the OBOR

initiative, Turkey tried to revive some parts of the routes, for instance, the Caravanseraï project was introduced in 2008-2009 by the Turkish government to increase collaboration between custom authorities of the states through the Old Silk Route direction. The project aimed to facilitate transport and trade by accelerating and straightening the crossing customs procedures between Azerbaijan, Turkey, Kazakhstan, China, Kyrgyzstan, Iran, and Georgia (Ergünsü, 2017: 97-124).

Figure 61: Old Silk Road Route of Turkey in 16th-17th Century



Source: Sönmez and Akgül, 2013: 45-62

The Silk Road has had crucial importance for Turks since the initiative was established. In the research of some historians, the silk road can be called the "Turkish road". There are traces of different Turkish communities and states on this trade and culture route that developed in the historical process. Since the Ancient Silk Road, there are important Turkish states, great wars, architectural works, and a great cultural heritage created and lived in the area of the route. The scientific and cultural environment that developed around today's Uzbekistan in Central Asia, especially in the period called the Islamic Middle Ages, is a remarkable indicator of civilization (Atasoy, 2010: 1-11).

3.1.2. Declaration of the Belt and Road Initiative in Turkey

From the perspective of China's government, Turkey has a crucial position in the middle corridor therefore Chinese President Xi tries to ensure Turkish involvement in the program. Recep Tayyip Erdoğan (President) and Mevlüt Çavuşoğlu (Minister of Foreign Affairs) attended the OBOR summit that held in Beijing. Researchers and academicians explain that two routes of the initiative be possible to join Turkey in the land part of the project:

- i. The direction of the Pakistan-Iran
- ii. The direction of the Caspian Sea, Georgia, and Azerbaijan (Kadılar and Ergüney, 2017: 87).

To be a member of the Middle corridor of OBOR, the Turkish government signed an MOU (Memorandum of Understanding) with the Chinese government in November 2015. Recep Tayyip Erdogan visited China to progress the development of the OBOR initiative and increase cooperation between China and Turkey in July 2019. The common Cooperation Protocol was signed and established a Council of Coordination with Central Asian Republics and Azerbaijan to integrate the route of the OBOR. Georgia, Turkmenistan, Turkey, Afghanistan, and Azerbaijan signed the Lapis Lazuli Transportation Corridor Agreement in terms of ensuring the mutual benefit of the project. BTK (Baku-Tbilisi-Kars) railway infrastructure investment is one of the significant examples of this cooperation among the middle corridor countries (Akman, 2019).

3.1.3. Realization of the OBOR in Turkey

The first action related to the One Belt One Road initiative was a cargo train called Trans-Caspian China Railway Express, coming from Xian through Bosphorus via the Marmaray tunnel to reach Europe on the 6th of November 2019 (DBT, 2019). The journey takes long 18 days and ended in the Czech Republic by using China-Central Asia- West Asia corridor (RTMFA, 2020). In middle corridor development, this transportation makes the dream true for middle corridor countries and OBOR projects. OBOR initiative is called a 'Middle Corridor' in Turkey which is why many

articles mention OBOR projects developments as Middle corridor developments in Turkey.

Despite Europe and China's trade volume being approximately twenty-one trillion dollars which consist of only three percent of the transportation transactions (Yesilyurt, 2019), The Baku-Tbilisi-Kars railway project is a start-up project to enter the middle corridor for the Turkish government therefore Turk gives a substantial role in this development to ensure to be a great partner of the OBOR initiative (DBT, 2019). Historic voyages of the Trans-Caspian transport route will help reinstate the Old silk road and the development of Turkey regarding transport infrastructure (TKTC, 2019).

Yavuz Sultan Selim bridge that Chinese companies want to share with Italian owner (KF, 2020), investment help the development stage of the OBOR project to integrate the middle corridor between east and west (BRN-a, 2020). BTK railway investment and Marmaray ensure Turkish side attendance of the land side of the OBOR, on the other hand, the acquisition of the Kumport was a tangible example of Turkey's attendance of the sea part of the initiative by Chinese shipping company COSCO holding (Esmer, 2017).

3.1.4. New Opportunities related to BRI in Turkey

The main aim of the OBOR initiative is to ensure collaboration among the member countries, therefore, there is a great opportunity to solve their regional issues such as the Armenian-Turkish border problem for the Turkish government. Many countries want to be a part of the project hence Turkey may be responsible for being a leader in the middle corridor with the help of enormous infrastructure projects. From the neighboring countries' perspective in the region, they should cooperate with Turkey to take advantage of the middle corridor (Kadırlar and Ergüney, 2017: 87). Turkey could use these new developments as leverage to solve their regional issues concerning diplomatic and economic situations (Dal, 2017). The mutual benefit motto of the OBOR initiative could fix many regional problems and increase trade volume and connectivity among regional partners such as Turkey, Iranian, Armenia and Syria, and Iraq.

There is another chance for Turkey that could be a haven for transportation goods and capital. Turkey has a strong position when compared to the other regional powers in the region such as Georgia, Iraq, Iran, Azerbaijan, Syria, and Lebanon regarding economical and political situations. Turkey could be the locomotive power of the development stage of the middle corridor. It is fact that Turkey has a more valuable currency than other many countries in the area hence Turkey's government should improve its position to take advantage of the OBOR project with respect to the transportation infrastructure and diplomatic relations in the region (Kadılar and Ergüney, 2017: 88).

China has several giant companies to complete their infrastructure investment and construction business however Turkey has great experience in the construction sector and there is no possibility to reach Chinese companies individually by one at every investment at the OBOR economic corridors (Bashir, 2018). Turkey constructions firms may use this opportunity to increase their influence in the region and this development ensures the increasement of the soft power of Turkey in the middle corridor area (Yalınkılıçlı, 2017).

Central Asian countries have significant importance to Turkey and the OBOR project could open the gateway between Turkey and Turkic countries such as Uzbekistan, Kazakhstan, Kyrgyzstan, and Turkmenistan regarding increasing trade and diplomatic relations among these countries. Turkish construction firms already work in the region however there is only limited cooperation between Turkey and these countries although they have also a Turkish identity (Kadılar and Ergüney, 2017: 89). Construction businesses contribute a % of the 5.9 GDP of the Turkish economy and employ approximately ten percent of the total workforce of Turkey which is why the construction sector has crucial importance to the Turkish government (Bashir, 2018). There is another great opportunity for the Turkish authorities to ensure the integration of trade routes between Turkic countries. Turkey has the capacity to sell a great volume of export goods in the area. On the other hand, Not only there is a possible trade chance for Central Asian countries but also the OBOR project will ensure easier access to Balkan trade markets such as Romania, Bulgaria, Ukraine, and Moldova (Kadılar and Ergüney, 2017: 89).

3.1.5. Turkey's Position as a Member of the CCAW Asia Corridor

From the perspective of the Turkish government, there are two different middle corridor definitions. China-Central Asia-West Asia economic corridor (Figure 62) is part of the Chinese OBOR plan however Turkey intends to create its economic corridor in the Mediterranean called as 'Middle Corridor'. The main aim of this corridor is to reduce dependence on Russia and Iran to integrate transport routes between the east and west. Russia and Iran could be always a problem for Turkey economically, politically, and militarily. The middle corridor will be a kind of region-wide railway network and it help to increase connectivity and trade volume between Turkey, Central Asia, and Transcaucasia (Colakoğlu, 2019). The corridor's starting point is China then goes through Central Asian countries, passes the Caspian Sea, and reaches the territories of Georgia and Azerbaijan towards Turkey (Akman, 2019). Trans Caspian East-West Middle Corridor called the 'Middle corridor' has crucial importance for countries along the route of the transport route. The direction of the transport passage covers the ports of Turkmenbashi (Turkmenistan), Aktau-Kuryk (Kazakhstan), and Baku-Alat regarding multimodal transportation on the transit corridor of Caspian (RTMFA, 2020).

Figure 62: China-Central and West Asia Economic Corridor



Source: Luft, 2016

From the perspective of the Turkish government, there is competition between the Northern Route (New Eurasia Land Bridge Economic Corridor) which includes Russia, the Southern Route (The China-Central Asia-West Asia Economic Corridor) that cover Iran, and the Middle Corridor Route (Turkish initiative in BRI) that cover Baku–Tbilisi–Kars railway infrastructure project of the initiative. Turkey intends to be part of every possible transportation project however BTK railway initiation is the best alternative to be a part of the OBOR project Turkish authorities. (Atlı, 2018: 117-134).

Figure 63: Turkey's Position in the Middle Corridor of the BRI (Lapis Lazuli)



Source: Devonshire-Ellis, 2018

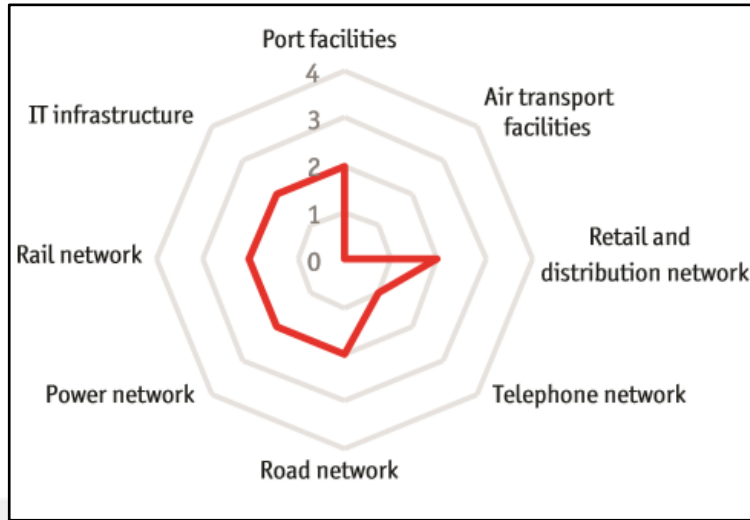
Turkey, Georgia, Azerbaijan, Turkmenistan, and Afghanistan agree on a transport agreement called as Lapis Lazuli transport corridor that covers five countries between the east and west part of the Caspian Sea (Figure 63). Aqina City and Torghundi City that close to the Afghani-Turkmenistan border are starting points of the Lapis Lazuli corridor, both cities have railway connections to Turkmenistan then routes go through Turkmenbashi (Caspian Sea Port) in Turkmenistan and the final points of the route include Baku through Tbilisi and ports of Batumi and Poti then the route connects to Kars to reach European countries. The corridor not only ensures trade activities between China and other participating countries but also helps reduce the terror organizations in the region with the help of economic improvement in the area (Devonshire, 2018). The Turkish middle corridor is faster and more economical when

compared to the Northern part of the initiative. The middle corridor is 2.000 km shorter than the Northern corridor of the OBOR initiative and has one-third of travel times (approximately 15 days) with great climate conditions. Turkic council members signed a ‘Common Cooperation Protocol’ as a part of the organization that is taking responsibility for the Middle Corridor development and arrangements. Deputy Ministers of the Turkic council participation will touch in contact about any issues related to transportation organization. Aktau, Baku, and Samsun port signed a Memorandum of Understanding to increase the sister-port relationship between each other (RTMFA, 2020).

3.1.6. Turkey’s Road-Railway-Air transport infrastructure investments

Turkey has a great road infrastructure with a modern network all over the country however there is a lack of railway infrastructure. According to the Turkish government transportation data, approximately eighty percent of the cargo transportation is done by road transportation, and ninety percent of passenger transportation was realized by road transportation. The share of railway cargo transportation is 4.8% and passenger transportation 2.2% in all transport modes. From the perspective of foreign trade, the main transport mode is maritime has a 54.8 percent export rate and 58.4% of import rate whereas the ratio of road transportation is 35% and 15.4%. and the percentages of railway transportation are only 0.6%. The Turkish government intends to increase railway transportation share in all transportation modes in terms of transportation per unit. OBOR project will increase the importance of the railway and member countries of the initiative try to develop their railway infrastructure. Turkey is one of the countries that want to have modern railway infrastructure both in their country and internationally (Atlı, 2018: 117-134). Turkey has an average transportation infrastructure for doing business. Especially, land transportation has visible improvement to help the private and public sectors in Turkey. Air transportation has the good condition when comparing the other participating countries of the OBOR however there is still an average infrastructure investment risk on the rail, road, and port facilities (Figure 64) (Koepp, 2016).

Figure 64: Turkey Infrastructure Risk Radar



Source: Koepp, 2016 Note: 0=negligible risk; 4=high risk.

Turkey gives significant importance to the Middle corridor or Trans-Caspian route to ensure the connection between east and west to be a part of the OBOR initiative. There is no clear middle corridor description and the route of the project could change depending on the member countries' perspective, therefore, Turkey wants to be a part of its corridor that is called the 'middle corridor' to integrate trade transactions from Asia to European countries (Unal, 2019). The Baku-Tbilisi-Kars railway project is one of the most crucial investment initiatives for the Trans-Caspian route (RN,2019). The transport capacity of the railway is almost one million passengers and 6.5 million tons of goods and after the completion of the extra investment in the project, the capacity of the passenger will reach 3 million and the volume of the cargo will be 17 million tons of cargo in 2034 (Figure 65). The railway project between China and Turkey will reduce transportation time from 30 days to 12 days and after the completion of the route between European countries and China will reduce to transportation time at 18 days with the help of the Marmaray Tunnel (DBT, 2019).

Figure 65: Baku-Tbilisi-Kars Railway Project



Source: ERI, 2018

There is a close relationship between BTK and Edirne Kar's high-speed railway project. The end of the BTK railway line is KARS and from that point, the high-speed railway project starts (Unal, 2019). The railway initiative covers 2000km long from Kars to Edirne and the main purpose of the infrastructure investment is to integrate the BTK, Turkey route, and Europe (Figure 66). Chinese companies financed this significant project to transport their cargo with the help of this transport route. Approximately cost of the project will reach 35 billion dollars (Koru and Kaymaz, 2016).

Figure 66: Edirne- Kars high-speed Railway Projects



Source: Oguztimur and Colak, 2013: 14

Marmaray sub-Bosporus is a tremendous railway infrastructure project for Turkey. From the perspective of the Turkish government, Not only passengers were transported between Asia and Europe but also cargo transportation was achieved with the end of the project. First OBOR transportation was transported from this passage to reach European countries therefore Marmaray tunnel is a railway passage between east and west through Istanbul (Daly, 2019). The passage has 13.6 km long under the sea between Gebze and Halkalı and the significant part of this route is the short transport time when comparing the sea transport between Europe and China (Figure) (Yesilyurt,2019)

Marmaray tunnel which is the world's first undersea railway initiative project contributes to the Iron silk Road (Economic Belt) part of the OBOR significantly (Figure 67). Another infrastructure investment is the Yavuz Sultan Selim Bridge (TRT, 2019) which is the 3rd bridge on the Bosphorus that reduces the traffic density along the route of the OBOR initiative through Istanbul transportation routes (Dal, 2017). Çanakkale 1915 bridge construction will also support cargo transportation among the OBOR members through the European countries. Eurasia Tunnel was another part of the development stage of the OBOR therefore this route allows cargo transportation without sea transportation between east and west along the Turkish transport route direction (Çalışkan, 2018). Istanbul airport will be an air transport hub in the world and this may be an advantage for the OBOR initiative to integrate participating countries of the initiative in terms of cultural, economical, and political perspectives (Ergunsü, 2017: 97-124).

Figure 67: Marmaray Tunnel Project



Source: Gümüş, 2018

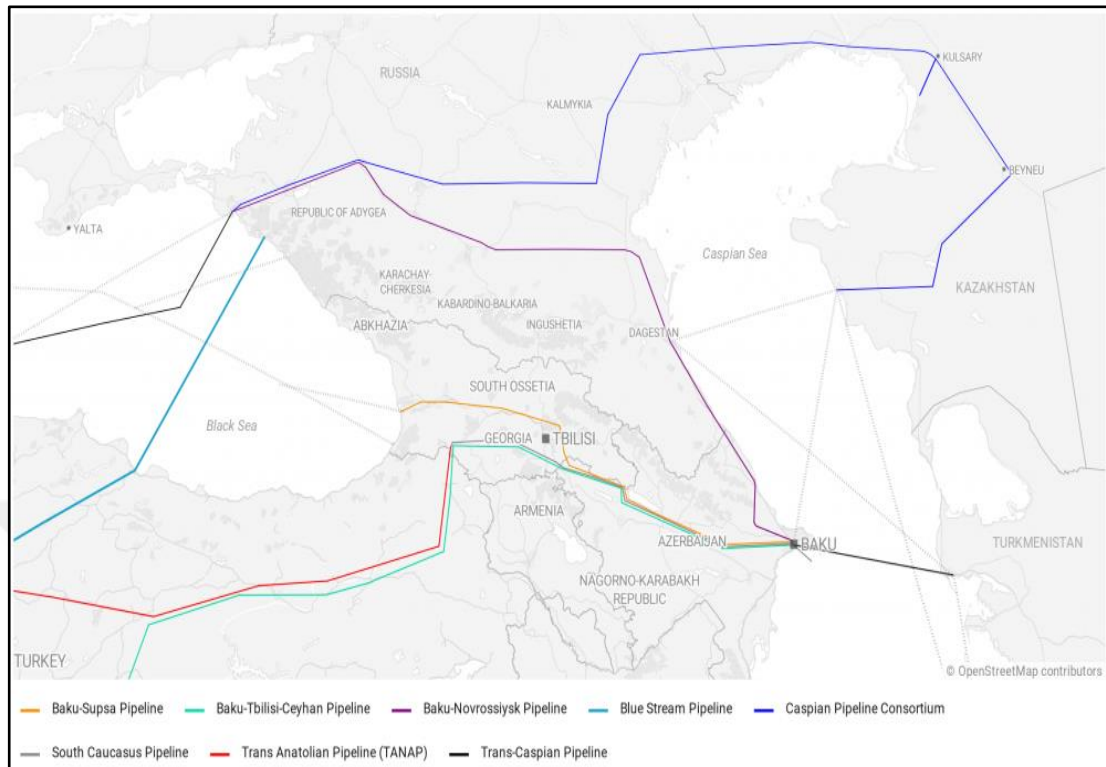
3.1.7. Relationship between Turkey Energy Sector and OBOR

Energy transportation is one of the crucial purposes of the OBOR project therefore The Turk Stream gas pipeline and TANAP pipeline projects ensure that Turkey will be an energy hub among the Asian and European countries. The main aim of the OBOR is to transport energy through its member countries hence Turkey has a crucial role in terms of energy supplying from west to east through the route of the initiative (Kalehsar, 2019). Although the OBOR project has a structure that includes commodity trade in general, it also has important potential in the field of energy area, on the other hand, the fact that the project brings together different countries that need energy supply and demand (Karagöl, 2017: 1-7).

Turkey not only invests energy transportation sector in their region but also strengthens its position in the OBOR initiative concerning being an energy supplier among the participating countries of the initiative. There are many energy transportation routes from Asia to Europe via the Trans-Caspian direction. It is hard to separate the direction of the energy transportation routes from the OBOR initiative development stage. These energy pipelines are (Figure 68):

- i. Baku-Tbilisi-Ceyhan oil transportation route from Azerbaijan to Turkey
- ii. Caspian Pipeline Consortium from Kazakhstan to Russian port Novorossiysk
- iii. Baku-Supsa oil transportation route from Azerbaijan to the Black Sea coast of Georgia
- iv. South Caucasus Pipeline natural gas route from Azerbaijan to Turkey area (which is reaching the European Union's Southern Corridor) (Bryza, 2019).

Figure 68: Energy Pipeline Projects from the Caspian Sea to Turkey



Source: Bryza, 2019

3.1.8. Turkey-China relation with respect to the OBOR Project

The historical background of the Silk Road shows that China-Turkey relations already start in B.C. 2000 regarding trade between each other along the route of the Old Silk Road. Due to Silk Road transportation and trade activities, there is a close relationship between Turkey and China till the 1400s (Şensoy, 2016). There is no doubt that China always takes more benefits from this interaction however two countries help each other on a different sides (Akçay, 2017). China began its foreign expansion in terms of open markets policies in 1979 hence relationship between the two countries has another stage in history at that time. Close contact continued till 1985 then another sluggish relationship was started between China and Turkey however recovery of the relation was started in 2003 and the optimum level of the relation was reached in 2009. Nowadays, Turkey has many opportunities for Chinese companies and China and Turkey intend to continue their relationship at a good point, therefore, Turkey's

participation in the OBOR will contribute to collaboration between the two countries with respect to economically and politically (Şensoy,2016).

Based on trade transactions, there was always trouble for the Turkish government due to the imbalance between the export and import rate between the two countries. Cumulative statistics of the export-import table show that from 2007 to 2018 Turkish imports more than its export hence the current deficit of Turkey increased (Table 13). Turkish presidents emphasize that there is a huge unbalance between China's export-import numbers and China should take the step to increase Turkish imports to China with respect to the having normal relationship between the two significant countries. China has the first rank in terms of Turkish import data however countries that Turkey did export, China has the 14th export location among its trade partners (Kulaksız, 2019: 48-64).

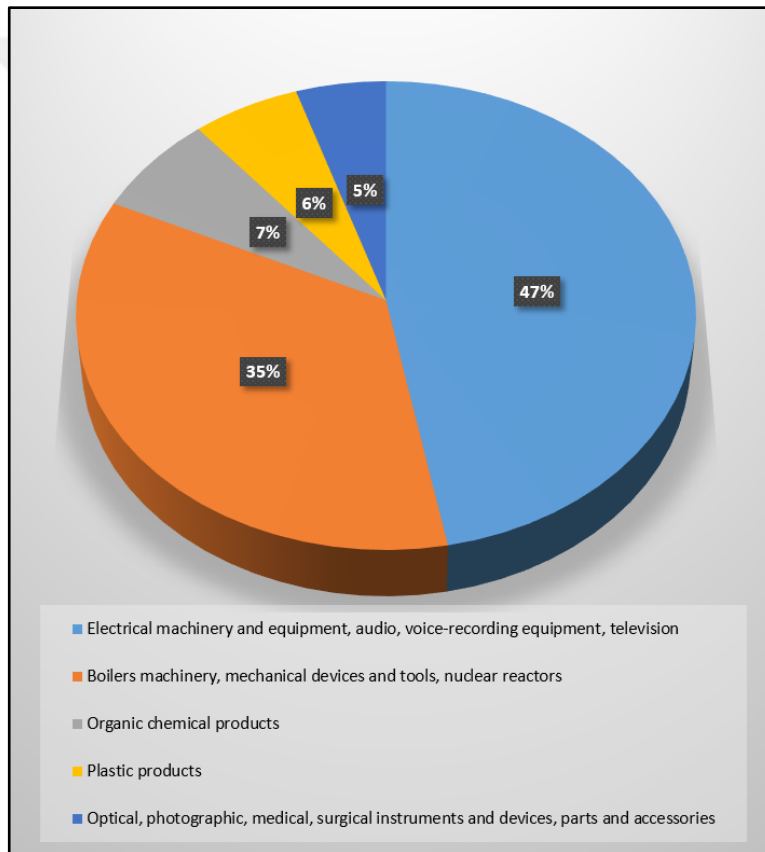
Table 13: Turkey-China Trade Values (for Turkey)* (in US\$ million)

Year	Export	Import	Volume	Balance
2007	1,040	13,234	14,274	-12,195
2008	1,437	15,658	17,095	-14,221
2009	1,599	12,677	14,276	-11,077
2010	2,269	17,181	19,450	-14,912
2011	2,466	21,693	24,160	-19,227
2012	2,833	21,295	24,128	-18462
2013	3,601	24,686	28,287	-21,085
2014	2,861	24,918	27,779	-22,057
2015	2,415	24,873	27,288	-22,459
2016	2,328	25,441	27,769	-23,113
2017	2,936	23,371	26,307	-20,435
2018	2,913	20,719	23,632	-17,806

Source: Kulaksız, 2019: 48-64

Importing goods from Turkey to China was separated into five different categories between 1996 and 2018. Electrical machinery and equipment is the top category that Turkey buys from China with 47% percent. Boilers machinery, mechanical devices, and nuclear reactors goods have the second rank in the Turkish import goods. Organic chemical products, Plastic products, and surgical instruments and devices consist only 18 percent of all import transactions between Turkey and China (Figure 69) (Kulaksız, 2019: 48-64)

Figure 69: Import Goods from China to Turkey (cumulative statistics between the years 1996 and 2018)

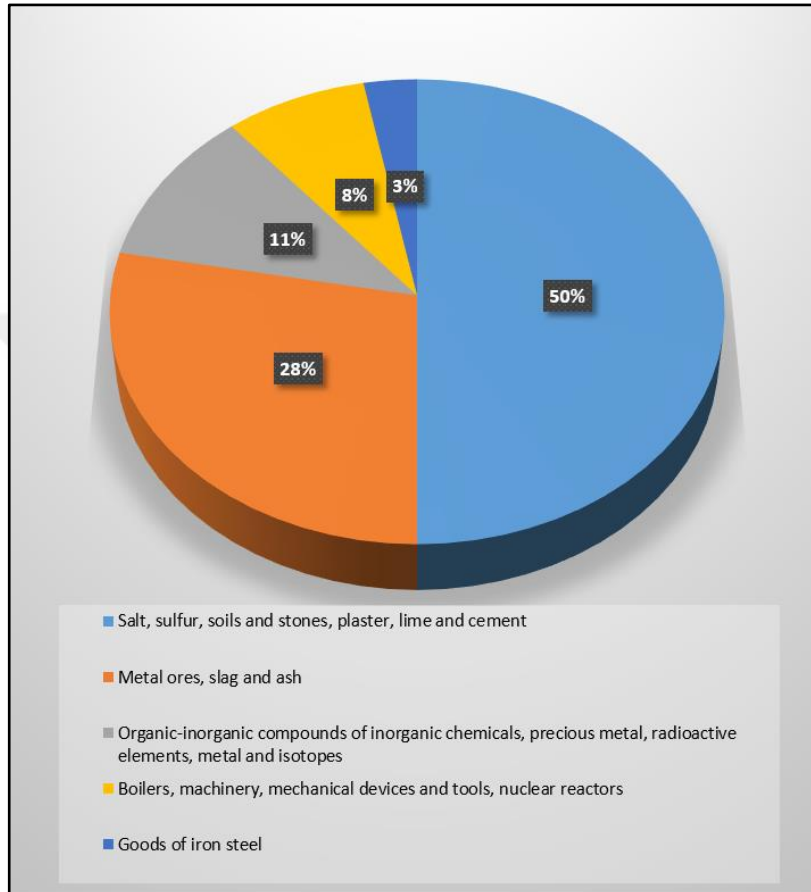


Source: Kulaksız, 2019: 48-64

There is a significant difference between the export and import of goods from Turkey to China. China takes raw materials from Turkey and sells them as finished goods. Salt, sulfur, soils, stones, plaster, lime, and cement constitute 50% percent of the exported goods from Turkey to China, and metal ores, slag, and ash cover 28%

percent of all exported goods. As finished goods, machinery and mechanical devices only consist of 8 percent of all imports(Figure 70) (Kulaksız, 2019: 48-64).

Figure 70: Export Goods from Turkey to China (cumulative statistics between the years 1996 and 2018)



Source: Kulaksız, 2019: 48-64

Turkey tries to take a position among Russia, China, and the USA in the Mediterranean (Dal, 2017). China wants to take the USA's global leadership position and try to collaborate with different countries in the Asia and Mediterranean and so far (Çolakoğlu, 2014). OBOR's initiative may be a win-win project for China and Turkey. Although Turkey is a regional power in the Mediterranean its important geostrategic position gives it more value than its economic and diplomatic position in the world. Turkey intends to strengthen its transport infrastructure and integrate international transportation routes such as OBOR therefore Chinese companies and the Turkish government may collaborate to increase connectivity along the Middle corridor to

reach European countries (Dal, 2017). Despite the very optimistic relationship between Beijing and Ankara on OBOR initiative collaboration, there is no road map to integrate Turkey's middle corridor with the OBOR project. The Turkish government wants more Chinese investments in mining, energy, and transportation infrastructure without any provision. Ankara expresses that Beijing should explain Turkey's position in the OBOR initiative clearly and there must be no debt trap policy attempt to about Turkish companies and government (Çolakoğlu, 2019).

China Development Bank gives credit to one of the Turkish government banks Ziraat Bank approximately 600 million dollars in 2017. The AIIB give another 600 million dollar loan to the Turkish government to secure Turkish gas supplies in 2018. ICBC agrees with Ankara about a 3.6 billion dollar loan for the natural gas supply and these transactions show that there is a close relationship between China and Turkey in terms of financial perspective (Clinch, 2018). Turkey demand to build a third nuclear power plant in its country and one of the possible investor is China to complete all project in time (Tsuji, 2018).

One of the important projects that can be shown as an example of the start of win-win cooperation between the two countries is the Ankara-Istanbul line, the first Chinese overseas high-speed train project in their history. This high-speed train project was initiated by the joint venture of CRCC (China Railway Construction Corporation), CMC (China National Machinery Import & Export Corporation), Turkish companies Cengiz İnşaat and IC İctaş İnşaat. Turkey has been financed with a loan of 750 million dollars and the initiative was completed in 2014. The distance of 533 kilometers and seven hours between Ankara and Istanbul have been reduced to three and a half hours. The successful completion of the Ankara-Istanbul high-speed train project has provided a positive reference to Chinese companies for new projects (Çalışkan, 2018). Turkey's infrastructure investments need the technological know-how of China and Chinese companies need fresh markets for investments like Turkey, therefore, it is possible to mention that the two countries are relatively mutually dependent on each other (LME, 2019).

3.1.9. Position of Turkey regards to International Transport projects

Attempting to integrate the Europe-Caucasus-Asia Transport Corridor (TRACECA) project, which was taken first steps in 1998 and considered within the scope of the revitalization of the Silk Road, with the new road and railway line to be created, is one of the most important steps to be taken. In this context, in the Kars-Tbilisi-Baku (BTK) railway project, which is the branch of the TRACECA transportation corridor that will provide an Asia-Europe connection (Çotur et al., 2015: 1-11), Marmaray will be connected to the European railway network, joining the Kazakhstan and Chinese railway network in the east from China to Europe (Karagöl, 2017: 1-7). "The most concrete step on the new Silk Road is the European, Caucasian, and Asian Transport Corridor project called TRACECA (Transport Corridor Europe Caucasus Asia). The TRACECA program is likened to the old Silk Road as a transport corridor stretching from Central Asia to Europe. It can be considered the contemporary Silk Road in terms of a transportation corridor connecting the east and west. " (Tuerdi, 2017). TRACECA is a project offered by the European Union to developing countries along the route of the project. The project is aimed to regain the old value of the Silk Road and contribute to the development of the international economy. The TRACECA project was established in Baku in 1993, in other words, the European Caucasus Asia Transport Corridor, which aimed to create the East-West corridor, which was created to connect the Commonwealth of Independent States countries to Europe through the Caucasus. The idea of using the resources of the Turkish states, which are at a very crucial point in geopolitical and geostrategic terms, and benefiting from these resources have been kept at the forefront. TRACECA member countries are; The European Commission, Azerbaijan, Bulgaria, Armenia, Georgia, Iran, Kazakhstan, Moldova, Tajikistan, Romania, Uzbekistan, Ukraine, and Turkey, and this project has been launched in order to develop commercial relations between member countries and facilitate international transportation. The objectives of TRACECA are as follows:

- i. To help the development of economic relations, trade, and transport links in Europe, the Black Sea region, the Caucasus, the Caspian Sea region, and Asia
- ii. To ensure traffic safety, cargo importance, and environmental protection

- iii. To harmonize transportation policies and legal structure in the field of transportation
- iv. Controlling access to the international road, rail, and maritime market
- v. It is to create equal competition between transportation operations.

This project aims to overcome central disruptions in global and regional transportation systems; It includes a multimodal transport corridor covering rail, maritime, road, and air transport. The Trans-Asia Railway project is not a new project, but emerged as a railway link between Africa and Europe, extending to Singapore, Bangladesh, Southeast Asia, India, Pakistan, Iran, and Istanbul about 60 years ago. It is aimed not only to connect Asian countries but also to connect Asia to Europe via Russia and the Middle East through Iran to become a trade corridor between Asia and Europe. This corridor has had an accelerating effect on the economic and commercial development of the region and its political integration.

In summary, the TRACECA project has been prepared for the harmonization of transportation policies and legal framework and procedures in the field of transportation in order to improve economic relations, trade, and communication between the contracting countries and to facilitate international transportation. The first attending countries of the project are Azerbaijan, Armenian, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan in 1994 at Brüksel Declaration. Turkey joined the program in 1994 at the Tashkent TRACECA Conference (Table 14) (Üzümcü et al., 2014: 11-39).

The European Caucasus Asia Transport Corridor (TRACECA), which is a component of the Middle Corridor, has been connected with the high-speed train project of Kars and Edirne within the scope of the Baku-Tbilisi-Kars project. The TRACECA project, which will form an important part of the project that will connect London and Beijing without interruption, will be integrated with Marmaray and Yavuz Sultan Selim Bridge (Günay et al., 2019: 157-175).

Table 14: Member States of the TRECECA

Date of membership	Meeting	Member State(s)	
1994	Brüksel Declaration	Azerbaijan Armenia Georgia	Caucasian countries
		Kazakhstan Kyrgyzstan Tajikistan Uzbekistan Turkmenistan	Central Asian Countries
1996-1998	Bakû international TRACECA Conference on Restoration of the Historical Silk Road	Ukraine Moldova	
2002	Tashkent TRACECA Conference on Restoration of the Historical Silk Road	Romania Bulgaria Turkey	
2009	Basic Multilateral Agreement	Iranian	

Source: Üzümcü et al., 2014: 11-39

3.1.10. Advantages of OBOR from the perspective of Turkey

Attempts to be made under the OBOR plan, it has several advantages in Turkey. These advantages can be grouped under three main headings:

- i. Turkey's geopolitical location: Turkey has one of the significant locations in the middle corridor.
- ii. Turkey's production power and local freight potential: total containers handled reached 8.2 million TEU in 2015, Turkey's hinterland for local load amount by displaying about a two-fold increase from 3.3 million TEU to 6.4 million TEU between 2006-2015. This potential creates an attraction for international logistics businesses.
- iii. Transit container which has the direction of the Black Sea: transit cargo handled between the years 2006-2015 has increased from 390 thousand TEU to 1.8 million TEU increasing by nearly six times in this period. Since 2006, a 22% increase rate has been recorded per year (Esmer, 2017).

Attendance of Turkey in the OBOR initiative allows the entrance of the Asia market for Turkish companies and the government. Turkey will be a key country between Asia and Europe to integrate international transportation routes in one area (Durdular, 2016: 77-97). From the perspective of the Turkish government, Turkey will increase cooperation with China in terms of investments, tourist movements, technology transfer (Ergunsü, 2017: 97-124). OBOR will help to fix the relationship between Turkey and Turkic countries in Asia, therefore, Turkey could solve many political and economical issues with the help of this tremendous initiative (Zan, 2016: 50-72). Chinese companies may prefer Turkey for the investment in transportation infrastructure and there is a potential logistic hub for the Chinese government and private companies to transport their goods to Europe (Ergunsü, 2017: 97-124). Turkey has strong military and regional power in the Mediterranean. OBOR initiative helps Turkish image worldwide with respect to transport goods and develop new technologies (Dal, 2017).

Russia and Turkey have a different perspective on global and regional issues in their area, therefore, OBOR Initiative allows the competition between the north corridor and middle corridor of the project. Turkey may use its technological advantage against Russia to balance politics between China and Russia (Tavsan, 2019). Turkey is located at a key point in the China-Central Asia-West Asia Economic Corridor of the initiative. Turkey has a significant geopolitical position, strong production, and high load potential of the Black Sea. Projects such as Baku-Tbilisi-Kars and logistics villages should be completed to consolidate these superiorities. Being involved in the OBOR initiative is a matter of importance not only for a specific mode of transport but for the future of the entire logistics industry. Experiences of the projects related to the initiative have shown that the OBOR project is very flexible however the routes are not yet shaped and are it is constantly changing. Though it may have a significant advantage for access to the sea through Turkey, in particular, the strengthening of the already strong infrastructure of port operations and logistics network and railway projects should be completed quickly (Esmer, 2017).

One of the significant purposes of Turkey is to be an energy hub in the Mediterranean therefore OBOR initiative will support the Turkish investments in terms of energy pipelines in the region. OBOR will open new markets for Turkish

investment and transportation goods and not only are economic benefits for important for the Turkish government but also diplomatic gain is crucial for Turkey to demonstrate itself in the global area. There is potential to improve the relationship between Russia, Iran, and China with the help OBOR initiative therefore economic corridors of the project through Turkey and Russia will be the target objective for Turkey to integrate transportation routes between these countries for its country regarding increase collaboration among the member countries of the initiative in the Mediterranean (Karagöl, 2017: 1-7).

3.1.11. Perks and Challenges for Turkey

OBOR initiative is very crucial for Turkey to increase its export volume worldwide and take infrastructure investment to develop its country, therefore, small troubles could be overcome by the Turkish government to integrate this crucial transport route however China's Uighur policy is one of the main problems between China and Turkey to go forward about bilateral relations. China's government was uncomfortable with the Turkish support of the Uighur community in China and the Turkish government tried to create a balanced policy between Uighur Turks and China authorities. China emphasizes that Turkey should not intervene in China's domestic policies related to minorities in the region therefore if tension may arise between the two countries OBOR initiative attempts could suffer the reason for Uighur policies (Kalehsar, 2019).

Turkey made exports to China reached \$ 2.3 billion in 2016 however imported numbers reached approximately 25 billion dollars. According to Turkey Statistical Institute (TSI) data, while there was a gradual decline in exports, imports were at the same level. Based on a leading position in Turkey with a 12 percent share of China's total imports, however, Ankara believes that this cannot continue, and expects China to open its market to Turkish products more (BRN-a, 2020). Minister of Economy Nihat Zeybekçi, who will visit China with President Recep Tayyip Erdogan, touched on this problem and said "Our current foreign trade relationship with China is not sustainable, there is a 10-fold difference between exports and imports." Stating that this difference is very noticeable, Zeybekçi explains that "China should allow the

Chinese companies approximately buy 15-20 billion dollars goods and service from Turkey then sell 30 billion dollars goods to Turkey could be acceptable in terms of mutual benefits principles" (DW, 2015).

From the perspective of Turkish authorities, the OBOR initiative helps to revive the historic Silk Road and will boost trade along the route of the project. Turkey and Central Asian countries getting closer to China. According to Chinese authorities, the project will be China's gateway to the West through trade and will strengthen its relations with participating countries on the route within the scope of its geopolitical priorities. The difference in knowledge of both parties regarding the project and the difference in thoughts and priorities in the geopolitical strategies of both countries is one of the important problems in the OBOR initiative. There are many problems with the positive execution of the Silk Road project. The first issue between Turkey and China is the foreign trade deficit of about 20 billion dollars every year. The second problem is the anti-dumping regulations applied to products imported from China. Some of the transported goods are not suitable for international standards between Turkey and China but also Turkey's economical position and foreign trade problems hinder the progress in a positive direction in terms of the OBOR development stage.

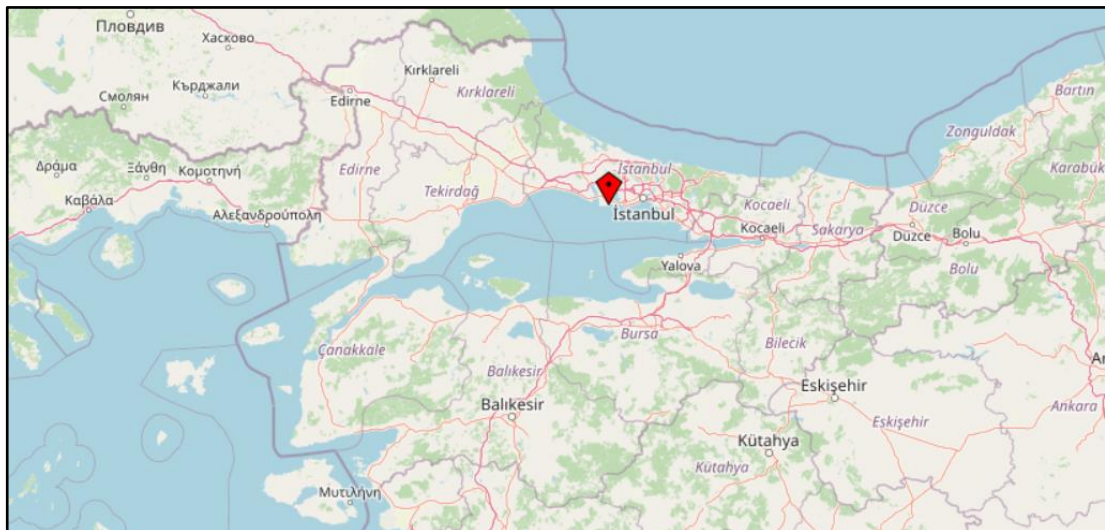
According to the results of the surveys conducted by the USA-based Pew Research Center in 43 countries, the perception of China is generally positive however, 68% of Turks have a negative opinion about China. On the other hand, according to the survey conducted by the Chinese newspaper Global Times, after the anti-China protests that took place in Turkey in 2015, China has negative views on Turkey of 64% of Internet users. Chinese internet users (71%) indicate that Turkey's "not that friendly" and 87% stated that Turkey's tourism sector should be removed from the Chinese travel list. When examined from this point of view, it is understood that these negative perceptions in the two countries constitute a serious obstacle to the cooperation of the two countries in terms of the development of relations between the two countries within the framework of the revitalization of the One Belt One Road project (Ergünsü, 2017: 97-124). Debt-trap policy of Chinese companies is another critical issue to successful cooperation between China and Turkey, therefore, Turkish authorities impress that Chinese companies and government's investments in the OBOR initiative

should be beneficial for both parties otherwise Turkey may not be a part of this tremendous project (BNE,2019).

3.2. TURKISH AEGEAN PORTS OF TURKEY IN RESPECT TO THE MSR

21st Century Maritime Silk Road may be the opportunity for the Turkish government to develop its port infrastructure. Belt and Road Initiative not only covers the land part of the investment but also the sea direction of the route that is called MSR will contribute to the port network along the route of the initiative (Gökçay, 2019: 58-68). Turkey and China could collaborate to develop the MSR for the integration of Turkish ports into the system (Ergunsü, 2017: 97-124). Chinese shipping company called COSCO Shipping Lines acquired 65% of the share with a cost of 920 million dollars Kumport is the third biggest container port in Turkey (Van Marle, 2015). The port handling capacity is approximately 2.1 million TEU and Chinese companies already transport their goods to Europe via Kumport therefore this crucial port could be the sea leg of the current MSR route in terms of Turkish participation (Figure 71) (HDN, 2017). Some shipping authorities claim Turkey attend the MSR with the handover of the Kumport (Esmer, 2016: 209-207).

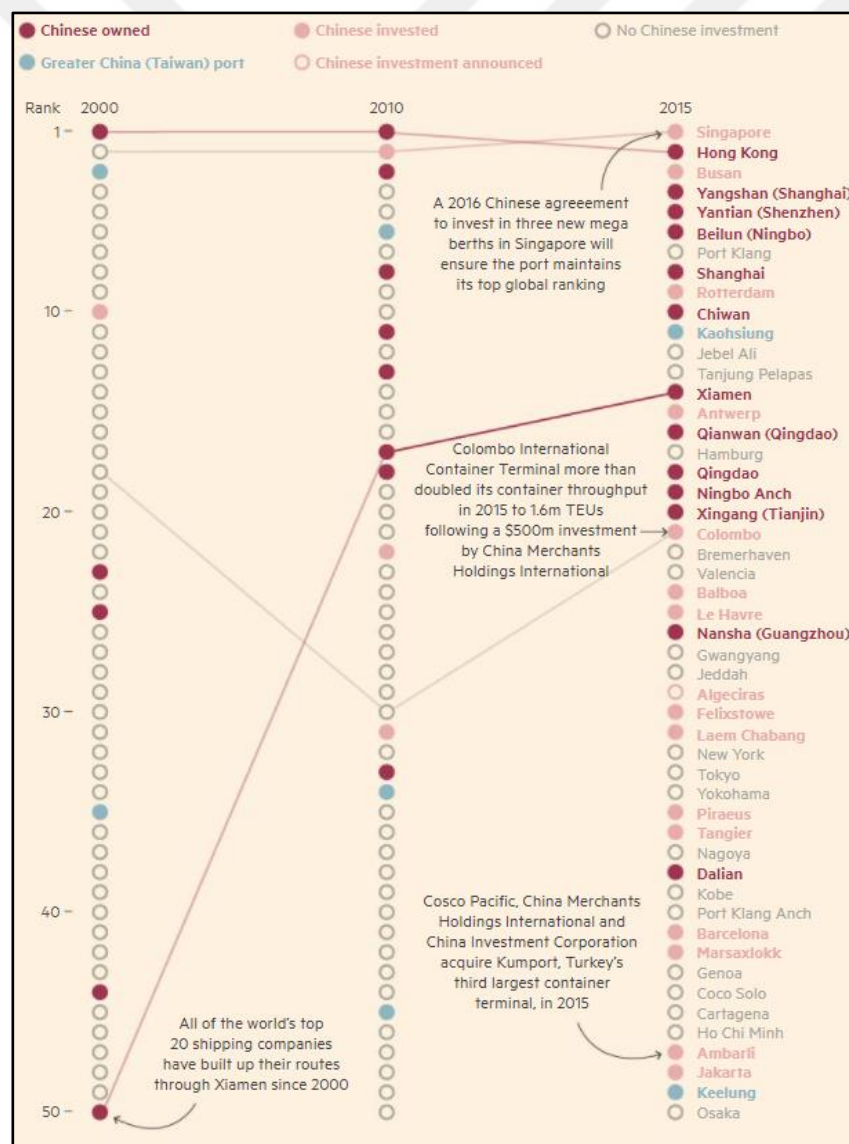
Figure 71: Location of the Kumport



Source: LZ, 2021

CMHI and CIC Capital establish a consortium to buy a major percent of the Kumport under the Cosco Shipping line company (HDN, 2017). The purpose of the China Merchant Holding to acquire the share of the Kumport is to enter the Turkish market rather than see this port as a regional hub or part of the MSR in the region (Hope, 2016) however Turkish government wants to be a part of MSR with this investment (Figure 72). Beijing does not intend to include Ankara as a part of MSR however there is no exact route of the MSR, Turkey has the chance to be part of MSR with other transportation infrastructure investments (HDN, 2017).

Figure 72: Chinese Investment in the World's Largest Ports has Boomed Top 50 Container Ports Ranked by Container Traffic Volume (twenty-foot equivalent unit)



Source: Kynge et al., 2017

On the other hand, the Candarli port project is another step toward being a part of the MSR in the Aegean Sea. A necessary part of the port construction was completed however there is still doubt about the time of all port completion. Candarli port capacity is 12 million TEU of the container in a year and it has the potential to be a hub port for the Aegean Sea if necessary investment could be finished in time (Figure 73). According to 2015 maritime transportation statistics, Istanbul Ambarlı Port which is Turkey's largest port that ranks 41st in the world with three million TEUs in container traffic is far from the target of the Turkish government in respect to having a top port in maritime transportation. Due to the fact that this port is far from the target of being one of the ten largest ports in the world, the Çandarlı Port project was developed in the North Aegean Sea. When completed, it is thought that Çandarlı Port will become one of the ten largest container ports in the world with twelve million TEUs capacity. If Çandarlı Port, which requires a high amount of investment, can be included in the scope of the 21st century Maritime Silk Road, the source for the completion of the port could be provided from China (Ergünsü, 2017: 97-124). The vision of the building Candarli port is to have a hub port in the Aegean Sea between Europe and China via Turkey therefore planned capacity of the port is more than the potential capacity of the cargo in the region. There will be three sections in the port and all section has a 4 million TEU capacity, therefore, every section may be built when one section was completely loaded (Inan and Yayloyan, 2018: 49).

Figure 73: Location of the Candarli Port



Source: Tarcan, 2011: 8

Turkey intends to have developed sea transportation infrastructure and wants to have a crucial role in the Aegean Sea, the Black Sea, and the Mediterranean sea, (Kadılar, 2013) therefore, MSR is an opportunity for the Turkish government to integrate international transport routes between east and west (RN, 2019). Many international Ro-Ro lines were established in the Black Sea and the Mediterranean Sea in recent years (Atlı, 2017). Some significant ports could help the development stage of the MSR in Turkey such as Mersin Port, Filyos Port, and Candarli port (Atlı, 2018: 117-134). Mersin Port is located on the Eastern Mediterranean coast with an 11 million ton/year (TEU) capacity. Filyos Port is on the Western Black Sea coast and has the potential to be part of the MSR Black Sea route (Atlı, 2017). Maritime transportation investment in Turkey shows that Turkey intends to be a part of MSR therefore Turkish government is open to dialogue with China in terms of port investments (Uysal, 2016: 55-66). There is a difference between the Turkish Middle Corridor and the Chinese Middle corridor (The China-Central Asia-West Asia Economic Corridor) however Both countries could find a solution to cooperate in their effort to increase trade along the direction of the MSR through Turkey. Lack of competition ports is a crucial problem for Ankara to be part of MSR hence Turkish government should give importance to its ports infrastructure more than before (Inan and Yayloyan, 2018: 21).

There are many small piers and terminals in the Aegean area however there is no hub port in the area. From the perspective of cargo transportation type and volume of transportation in the port area, thirteen ports were analyzed in the Turkish Aegean region. Developed or underdeveloped ports that have a duty of human transportation are out of our interest therefore cargo transportation is the priority of the factor why these ports were selected. General cargo, Container, Dry Bulk cargo, Ro-Ro, and liquid cargo transportation are operated by selected ports (IDÇ Port, Port of İzmir, Port of Dikili, Batılman Port, Ege Gübre Port, Nemport, Socar Aliğa Port, Ege Çelik Port, Habas Port, Port of Gulluk, Petkim Port, Ulusoy Çeşme Port).

3.2.1. Port of İzmir

Port of İzmir is located east of İzmir bay. The position of the port covers the İzmir city center (NM, 2021). The port is operated by TCDD. The port is established

on an area of 635 thousand square meters and can serve 25 ships at the same time with its 25 docks, the draft is 10.5 meters. When considered together with the highway and railway connections, the hinterland of İzmir Port cover;

- i. In the southern part of the Marmara Region,
- ii. the entire Aegean and Inner Aegean Regions,
- iii. In the western part of Central Anatolia,
- iv. It covers the western and northwestern parts of the Mediterranean (Figure 74).

The port has the potential to handle 1 million TEU containers and 10 million tons of cargo in total and 500 thousand passengers. The port mainly serves freight and cruise passenger ships. The port has an annual average turnover of 100 million USD. The services provided at the port are as follows:

- i. Loading and unloading activities
- ii. Storage activities
- iii. Loading and unloading services for the container
- iv. To ensure the transfer of goods within the port
- v. Providing pilotage and towage services to ships
- vi. To meet the needs of ships such as water and fuel
- vii. Receiving solid and liquid wastes from ships
- viii. To communicate with ships
- ix. To arrange entry-exit and anchorage activities in the port
- x. Organizing the workforce inside the port
- xi. Safety and security services
- xii. To ensure communication between institutions (Yalçın, 2011).

Figure 74: Location of the İzmir Port



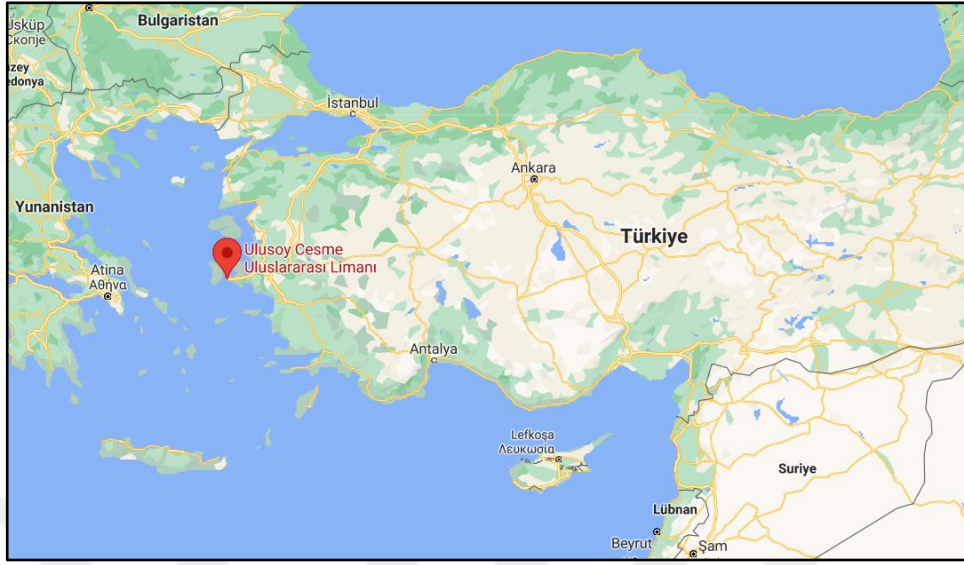
Source: Geohack, 2021

3.2.2. Ulusoy Çeşme Port

Çeşme, with its 3000-year history and location, is one of the leading historical and touristy districts of Turkey, which has hosted many societies consisting of Ionians, Lydians, Romans, Pergamon, Greeks, Arabs, and Turks. It is located in the west of the Silk Road and is directly connected to İzmir by highway (Figure 75). Following the acquisition of the operating right of Çeşme Port from the Privatization Administration and Türkiye Denizcilik İşletmeleri A.Ş. as of 06.06.2003:

- i. To increase the effectiveness and efficiency of port services, to ensure the maximum capacity utilization of its resources,
- ii. To contribute to the national and regional economy,
- iii. Managing ports with modern management techniques and practices,
- iv. To create a flexible tariff structure suitable for market economy conditions,
- v. To meet the port upper and infrastructure investment requirements, to keep up with technological developments.
- vi. Increasing employment and providing suitable working conditions.

Figure 75: Location of the Ulusoy Çeşme Port



Source: Google maps(g), 2021

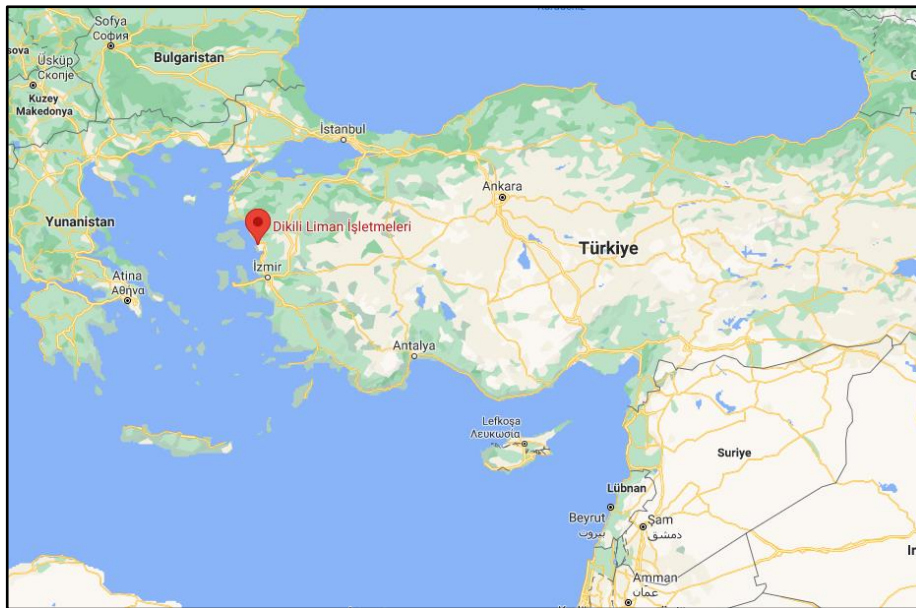
Investments have continued to operate the ports in a competitive environment, according to commercial principles, and the port area which had a 27,000 m² field at the time of transfer; has been expanded to an area of 85.000 m². A Temporary Storage area was established and put into service at a distance of 3 km from the port, besides, an area of 45.000 m² was purchased to be used as a future storage area. On the other hand, considering that the length and width of the new generation ships have increased and the number of passengers they carry has increased, the length of Çeşme Port's existing pier has been extended from 150 meters to 322 meters. In order to prevent the traffic of Ro-Ro ships and cruise ships, the Ro-Ro pier consisting of 5 dolphins of 213 meters in length, was built and put into service. In addition to this, following the Regulation on Tugboat and Piloting, port marine vehicles were renewed and within this scope, a tugboat with 30 tons of pulling/pushing power and a fire extinguishing capacity of 1,200 m³ / hour of water & foam spraying and a pilot boat that can speed up to 24 miles were put into service (ÇUP, 2021).

3.2.3. Port of Dikili

Port infrastructure was strengthening in 2000 and the service quality of the port was improved. The Port has a 31.500 m² indoor depot and storehouse with a 22.500 m² open storehouse that is far from 4 km on port terminals (Figure 76). Cargo types discharged and freighted at the port activities consist of; sunflower, bentonite, fertilizer, canola seed, coal, marble, gold mine, pearlite, magnesite, stone/quartz, flour, wheat, clay, nitrate, ceramic, dolomite. Ports' major activities are as follows;

- i. Pilotage
- ii. Towage
- iii. Accommodation
- iv. Loading and unloading
- v. Water supply to vessels
- vi. Shifting
- vii. Terminal services
- viii. Maintenance and repair
- ix. Mooring line
- x. Waste reception (Port of Dikili, 2020).

Figure 76: Location of the Port of Dikili

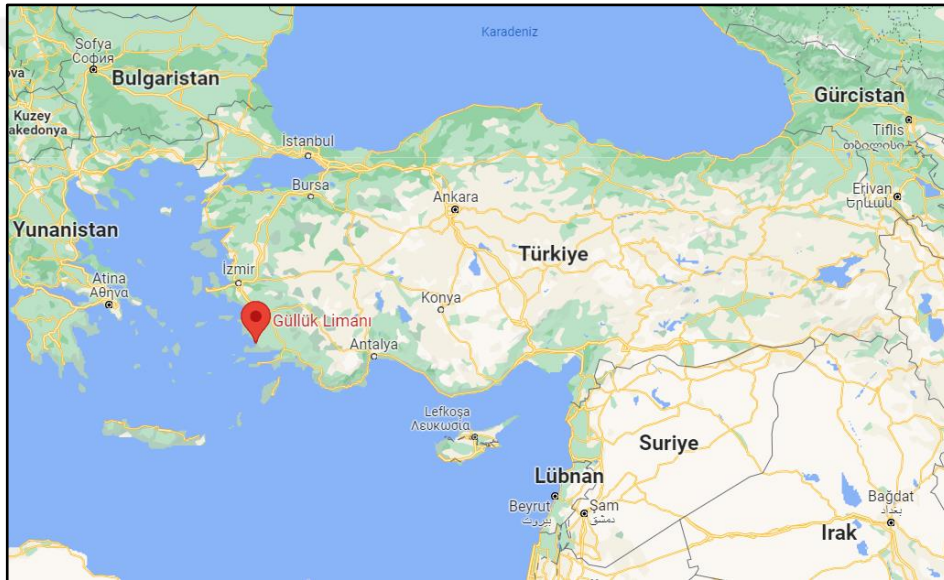


Source: Google maps(c), 2021

3.2.4. Güllük Port

Güllük port is accepted as a medium-sized port. The types of ships calling at the port are mainly bulk carriers and general cargo. The port is located at the Aegean Sea (Figure 77). In the Güllük port, which is equipped with the most modern technology and has adopted the service quality following the standards; bulk and bagged feldspar, block or processed marble, calcite, emery stone, quartz, and other bulk and packaged cargoes are loaded, and unloaded (POG, 2021).

Figure 77: Location of the Port of Güllük



Source: Google maps(z), 2021

3.2.5. Batılman Port

Batılman Port İşlemeleri, which was included in the Western Anatolia Group in 2006, provides service in the Nemrut Bay of Izmir's Aliaga district that 59 km away from Izmir city center (Figure 78). Until 2011, Batılman mainly handled cement and clinker loads belonging to one of the group companies, Batıçim is one of the developing ports constantly growing in order to get a greater share of the business volume in the region. Batılman Port Management, which has an annual handling capacity of 14 million tons; adds value to the region with its expert staff, 7 days a

week, 24 hours a day availability, an opportunity for carrying project cargo, general cargo, bulk cargo hazardous cargo, and non-hazardous liquid cargoes and storage with modern port equipment, logistics facilities, and storage options. Auxiliary services such as accommodation, waste collection, and water supply were also provided in the port area. (Batiliman, 2020).

Figure 78: Location of the Batiliman Port

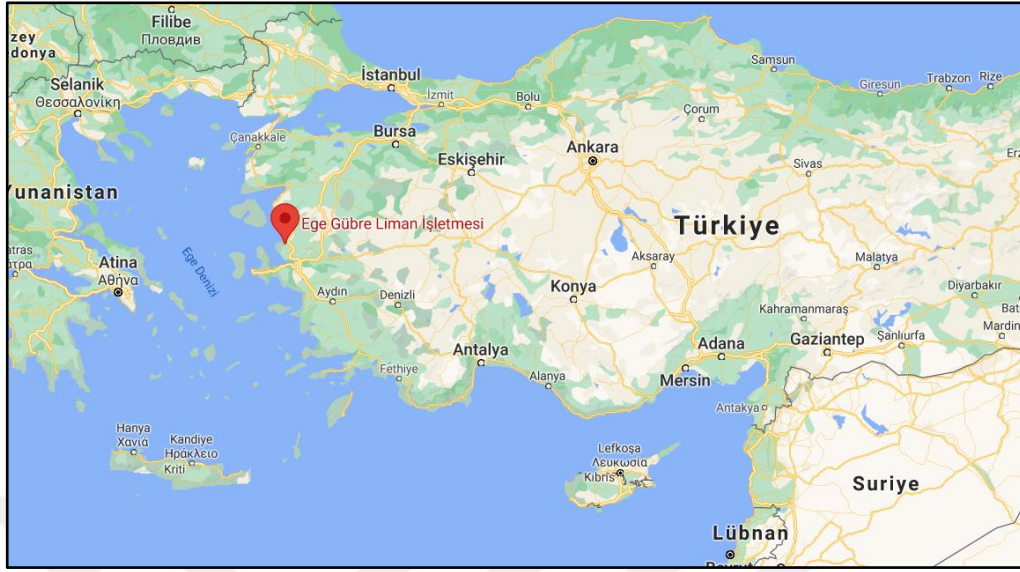


Source: TY, 2021

3.2.6. Ege Gübre Port

Ege Gübre Port Facilities is located in the southeast of Nemrut Bay's inner port. Position of the port far from 50 km from İZMİR city center, 1.700 m from İZMİR - ÇANAKKALE highway, D.D.Y and NEW FOÇA-ALİAĞA districts (Figure 79). Container, petroleum products, bulk solid, bulk liquid, general cargo handling, storage, container stuffing/unloading, container repair/cleaning, field stowage, and "OFF DOCK" outdoor services are provided at Ege Gübre port. Handling capacity is 5.000.000 Bulk Cargo (Ton / Year) and 1.000.000 Containers (TEU / Year). The total harbor area of the port is approximately 485.000 m² with a 26.740 m² warehouse (Ege Gübre, 2021).

Figure 79: Location of the Ege Gübre Port

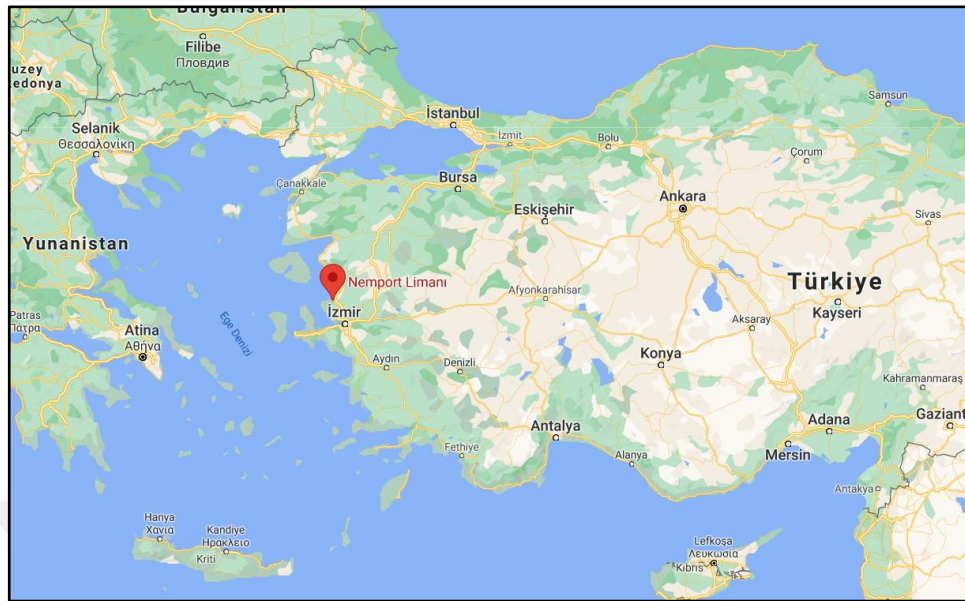


Source: Google maps(f), 2021

3.2.7. Nempport

Nempport, the first private container port of the Aegean Region, has been operating since 2010; It continues to play a pioneering role in its sector by combining its customer satisfaction-oriented service understanding with its quality and uninterrupted fast service in line with its vision, mission, and values. Nempport operates at Aliaga Nemrut Bay, which is 55 km away from the center of Izmir (Figure 80). Nempport, the trade gateway of the Aegean region to the world, provides its customers with the privilege of private port management with its fast and reliable service in sea transportation. As the first private container port in the region, Nempport will continue its investments and maintain its pioneering role in the region by keeping up with the developing technology with its ever-increasing number of container handling.

Figure 80: Location of the Nempont



Source: Google maps(h), 2021

The Port has of 160.000 m² terminal area of 840 meters long, and a dock four ships can dock at the same time (Table 15). Acting as the gateway of the Aegean Region to the world, Nempont provides added value to the economy of the region and the country with its port operations. Discharge, loading, shifting, storage, lashing / unlashing, and twistlock services are met at the highest level in this container port.

Table 15: Port Specifications

Handled Cargo:	Container, General Cargo, Project Cargo	
Handling Capacity:	Container (Teu / Year) 750.000	General Load (Ton / Year) 1,000,000
Total Port Area:	160.000 m ²	
Bonded Open Area:	100.000 m ²	
Truck Parking Area:	5.000 m ²	
Dock Pier Features:	Length / Width 1.080 m - 40 m	Depth (Meter) 21,5 m

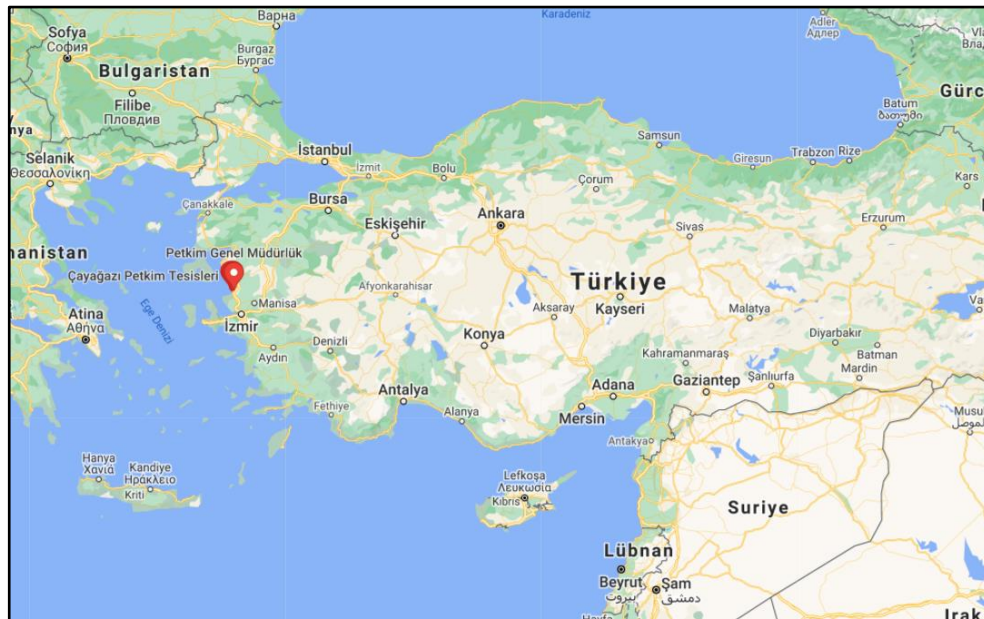
Source: Turklim(c), 2021

Thanks to its rich equipment park, Nempont offers its customers practical, safe, and time-saving stuffing and unloading services for various load groups such as boxed, bundle, block marble, paper, big bag loads, and heavy equipment (Nempont, 2021).

3.2.8. Petkim Port

The idea of establishing the petrochemical industry in Turkey was adopted in 1962, the beginning of the First Five-Year Plan period, and as a result of the studies and research, Petkim Petrokimya A.Ş. was established on 03.04.1965 under the leadership of TPAO. Petkim opened 5 factories in the Yarımca Complex in 1970, and then other factories followed. III. During the Five-Year Development Plan period, it was decided to establish the second complex of Petkim in Aliğa (Figure 81). Aliğa Complex was established with the most advanced technologies and optimum capacities and was put into operation in 1985. The demand increase rate of petrochemical products, especially thermoplastics in Turkey, is at least twice the world average. The ratio of the rate of increase in plastic demand to the growth rate of GNP is well above the world average. Petkim continues its capacity increasing expansion investments, which it started in 1998.

Figure 81: Location of the Petkim Port



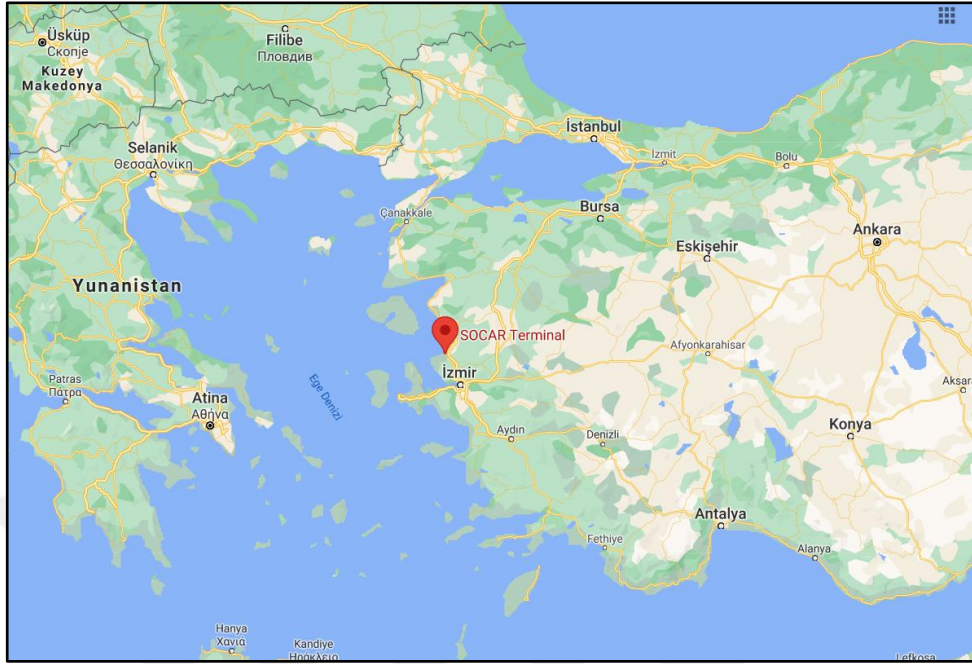
Source: Google maps(e), 2021

With the investments made to increase the production capacity by 120,000 tons/year in the ethylene plant, 120,000 tons/year in the low-density polyethylene factory, and 64,000 tons/year in the polypropylene factory within the framework of the capacity increasing investments of approximately 450 million USD, the aromatics factory improvement studies aimed at increasing capacity utilization and purity of paraxylene product were completed in 2005. Petkim; In addition to realizing 3.2 million tons of gross production per year, it continues to be a source of pride for our country and add value to the country's economy with its production technology that is respectful to human and environmentally friendly, and its contributions to our cultural, social and economic life (Petkim, 2021).

3.2.9. Socar Aliğa Port

Petlim Limancılık Ticaret A.Ş. (Petlim) was established on November 22, 2010, in order to develop the Petkim Port, operate it more economically, and build the "Largest Integrated Port of the Aegean Region" (Figure 82). Established as a 100% subsidiary of Petkim, 30% of Petlim's shares were acquired by Goldman Sachs, one of the world's leading investment banks, in the last quarter of 2014. This port, which was built by Petkim, was put into practice to complete the logistics integration step. The port investment, together with the financing cost, reached 400 million dollars. With the strategic cooperation with APM Terminals in container terminal management, the first phase of the port with 800 thousand TEU was put into service on 06.12.2016 and APM Terminalleri Liman İşletmeciliği A.Ş. started to manage operations of the ports. The second phase of the port was put into service on 04.07.2018 and started to operate at full capacity. 100% share of APM Terminalleri Liman İşletmeciliği A.Ş. were taken by SOCAR Turkey Enerji A.Ş. in 27.12.2018. The title of the company were replaced as a SOCAR Aliğa Liman İşletmeciliği.

Figure 82: Location of the Socar Aliğa Port



Source: Google maps(p), 2021

SOCAR Aliğa Port continues its activities in line with SOCAR's integration vision and goals in Turkey while preserving the port management system and operational structure in the process it started operating. SOCAR Aliğa Port is the first and only port operation in the Aegean Region that can efficiently serve ships with a capacity of 18,000 TEU, with a 700-meter single-piece dock structure and a minimum water depth of 16 meters (Table 15). The terminal is the largest port in the Aegean Region with a container handling capacity of 1.5 million TEU. The port has 42 hectares of logistics area in the port area and 6 hectares in the back service area for container storage, and a general cargo dock with a length of 150 meters and a depth of 10 meters is also located in the terminal area. While the general cargo dock of Socar Aliğa Port has a carrying capacity of 10 tons per square meter, an additional storage area of 30 hectares can be provided for project cargo loads that require storage. Socar Aliğa Terminal continues to add value to the Aegean Region and Turkey with its innovations, and strong infrastructure (Socar, 2021).

Table 15: Socar Aliğa Port Specification

Handled Cargo:	Container, General Cargo	
Handling Capacity:	Container (TEU / Year) 1.500.000	
Total Port Area:	420.000 m ²	
Port Area:	Duty-Free Area 20.000 m ²	Closed Warehouse 225 m ²
Port Area:	Bonded Open Area 400.000 m ²	Truck Parking Area 30.000 m ²
Pier Features:	Length (m) 700	Depth (m) 16

Source: Turklim(b), 2021

3.2.10 Ege Çelik Port

Liman İşletmeleri ve Nakliye Sanayi ve Ticaret A.Ş. was established in 1981. Ege Celik provides services in the fields of unloading, loading, and storage of dry cargo and general cargo cargoes, as well as importing raw materials and exporting its products. The annual capacity of the port is 7 million tons and it serves approximately 600 ships up to 70,000 tons DWT per year (Table 16) (ECP, 2021).

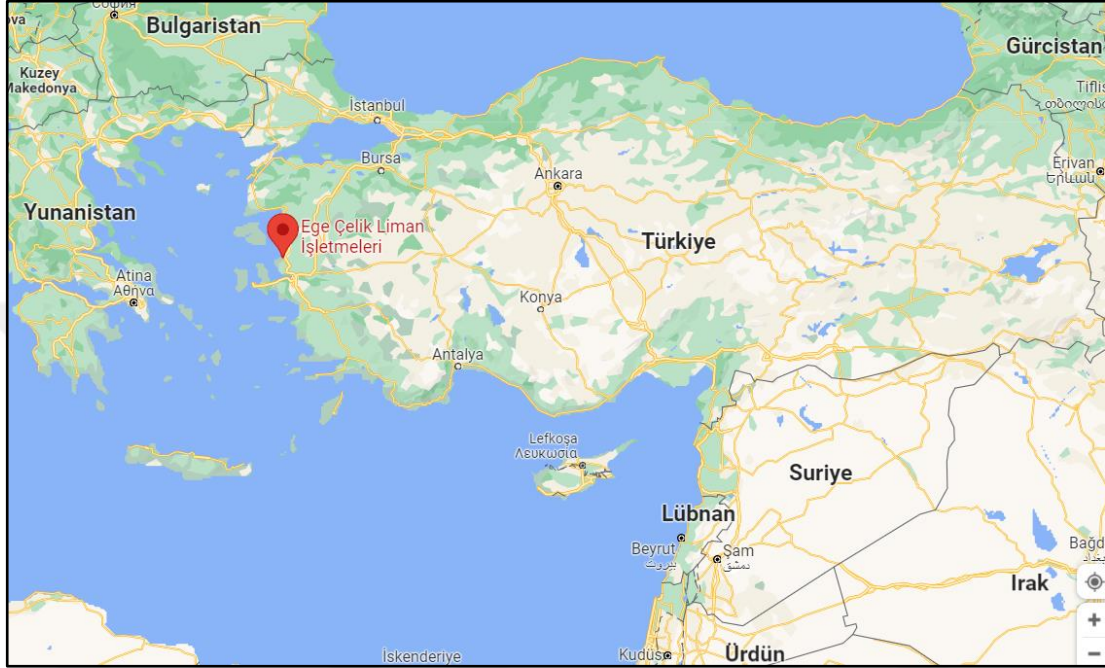
Table 16: Pier, Dock Length, Draft and Berthing capacity of the Ege Çelik Port

Pier No	Length	Draft Min-Max	Berthing Capacity (DWT)
1	110 m	7,5 m - 7,5 m	6000
2	186 m	9,0 m - 25,0 m	25000
3	200 m	25,0 m - 35,0 m	70000
4	185 m	25,0 m - 35,0 m	70000
5	214 m	11,5 m - 25,0 m	40000
6	120 m	5,5 m - 13,0 m	3000
7	100 m	4,5 m - 6,0 m	3000

Source: ECP, 2021

Ports coordinates are: 38° 46" Latitude - 26° 55" Longitude. The Pier Filling Area of the port is 32.494 m², the Back Field area of the port is 29.013 m², Road Area of the port is 32,318 m² (Figure 83).

Figure 83: Location of the Ege Çelik Port



Source: Google maps(o), 2021

3.2.11. IDÇ Port

IDÇ port was constructed through Nemrut Bay's shoreline located far from 60 km from İzmir center. The annual cargo handling capacity of the port is approximately 4-5 million tons and the draft of the port is 15.5 meters. The Port gives service northwest part of the İzmir along the regional and international transport routes therefore port has the capacity to handle transit cargo through the Aegean area. Firstly, Nemtas Nemrut Liman İşletmeleri started the port activities in 1983 then IDÇ liman İşletmeleri takes the liman management in 2004. Port's main activities are as follows:

- i. Warehouse management,
- ii. Port cargo handling services,
- iii. Provision and store supply.
- iv. Ship chartering and brokerage,

- v. Shipping agency (İdcliman, 2020).

3.2.12 Habas Port

Habaş Liman İşletmesi A.Ş., one of the Habaş Group companies, operates the port located in the south of the Nemrut Bay entrance. Port located at Aegean area, which is 7 km away from Habaş Iron and Steel Facilities scrap. Steel discharging and steel product loading services were given by the port management. Services are offered to other organizations that want to benefit from the services of the port. The Port's maximum draft is 41m and the berth length is 450 m (Table 17) (Habas, 2021).

Table 17: Habas Port Information

Scaffold length	490 meters
Scaffold width	30 meters
Berth length	450 meters
Port Coordinates	38-47 North 26-54.7 East
Maximum Draft	41 meters

Source: Habas, 2021

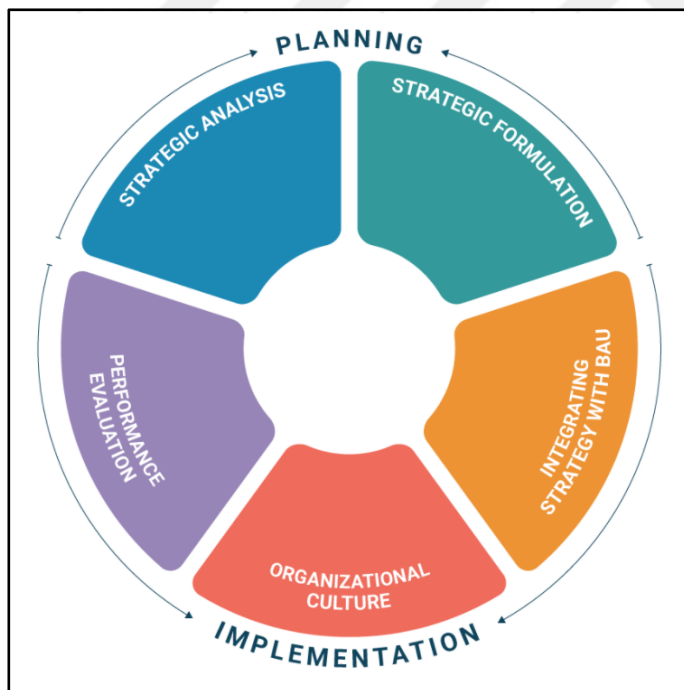
CHAPTER FOUR

RESEARCH METHODOLOGY AND DESIGN

4.1. STRATEGIC MANAGEMENT PROCESS

Strategic management helps organizations and companies meet their objectives and goals. The strategic management process covers the planning stage, monitoring stage, and analysis stage to have management strategies for decision-makers. From the perspective of future planning, Strategic management assists the managers of organizations to fulfill their duty of deciding long-term strategies in terms of effective, continuous, and applicable decisions. A business's vision and mission are the centers of the strategic management concept hence these terms guide company's future positioning and actions of the companies (Tucci, 2021).

Figure 84: Strategic Management Cycle



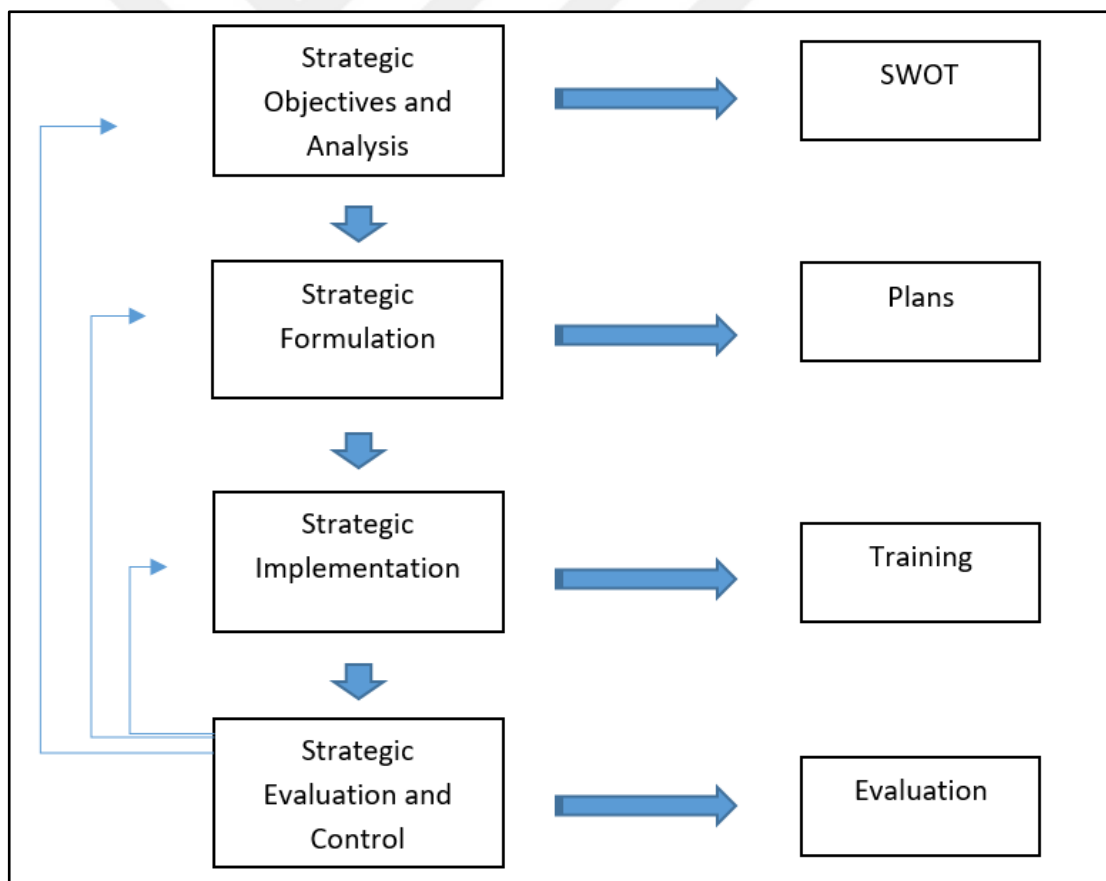
Source: Mirkovic, 2020

Strategic management comprises of planning and implementation part hence the strategic management cycle shows that strategic analysis and strategy formulation constitute the planning section of the cycle, on the other hand, performance evaluation,

organizational culture, and integration strategy create an implementation part of the strategic management process (Figure 84). Companies plan their strategies and then try to implement them correctly. The strategic management cycle is a forth and back between implementation and strategic planning therefore every decision related to companies organizations should start with the planning process (Mirkovic, 2020).

The strategic management process is ongoing culture for companies to be the leader in their market. It is a complex process that formulates the business's overall objectives and vision and future perspective (Strata, 2018). There are many definitions related to the strategic management process however processes could be described as simple as four stages: Strategic Objectives and Analysis, Strategic Formulation, Strategic Implementation, Strategic Evaluation, and Control (Figure 85) (LL, 2021).

Figure 85: Basic Steps of the Strategic Management Process



Source: Adopted from LL, 2021

4.1.1. Strategic Planning Process of Ports

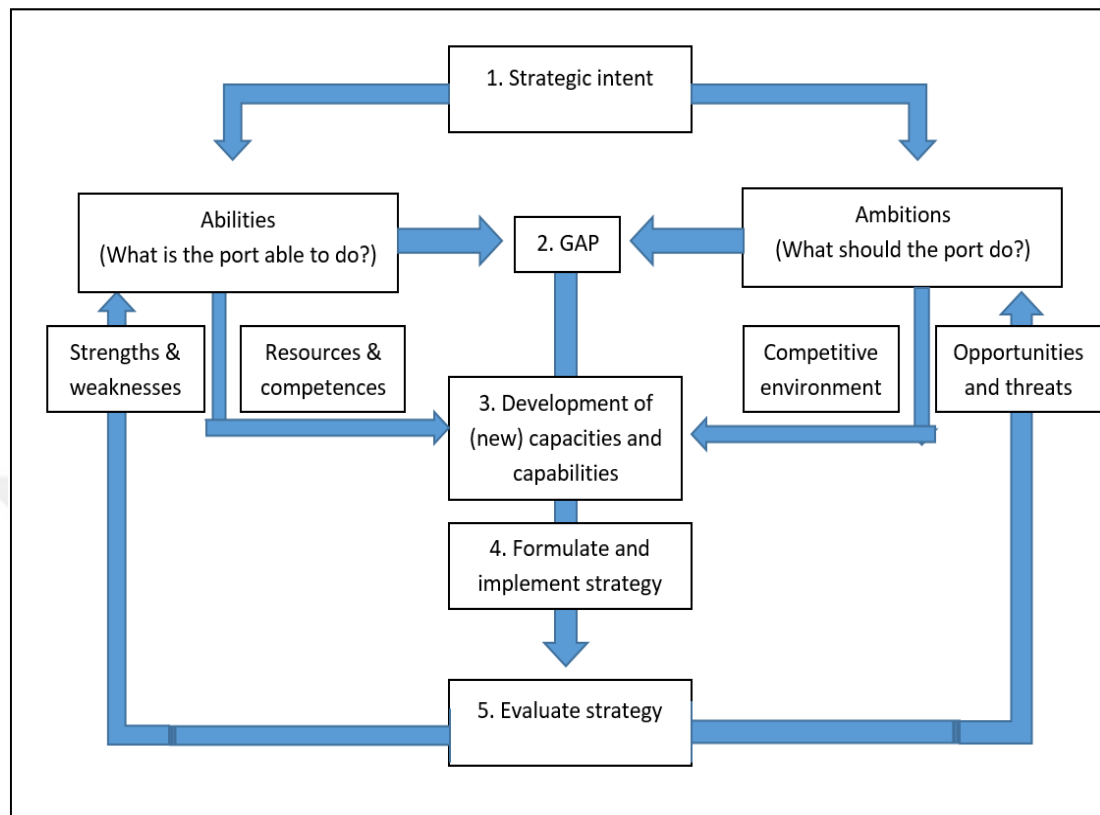
The strategic planning process is the concept of developing a common vision of ports or any other businesses' future and determining the main stages that help the organization reach its objectives and goals. Strategic analysis is a crucial part of the strategic planning process to meet the requirements and development plans of the organizations (Lynch, 2019).

Three different Strategic Port Planning concepts were used by port authorities:

- i. Short-term planning
- ii. Medium-term planning
- iii. Long-term planning

The short-term port planning perspective includes the allocation of the port's services and resources. Solving practical issues is the main aim of these planning types such as cargo handling, utilization of port services, and vessel turnaround. The time interval of the short-term planning approaches is one year to three years. The most significant thing in the short-term planning is the period of the strategies covers a short time. Medium-term port planning involves strategic and financial planning which is called a business plan. Port resources are divided to meet port annual requirements. Strategic plans of the ports were prepared by managers to allocate the different port resources to different port activities over the period of three to five years in respect to meeting the financial and marketing objectives of the ports. Long-term port planning covers a more visionary and fundamental perspective. This planning type helps the development of strategic port plans and port master plans. From the perspective of infrastructure improvement, capacities utilization and other capabilities for future development in a ten to thirty years long-term plan are determined to guide significant changes and new development in the port sector. Port managers are slog on to take maximize efficiency among the different types (focus on different subjects) of port planning concepts.

Figure 86: Strategic Port Planning Process



Source: Adopted from Notteboom et al., 2021:495 -500

STAGE 1: Formulate strategic intent

The strategic port planning process starts with the formulation of the strategic intent of the port. Different strategic intents could formulate with strategic port planning concepts. The long-term objectives of the ports intersect with the strategic intent of the port hence strategic intents perspectives cover the long-term initiatives and have to be valid. Determining the strategic intent of the port is a substantial part of the port planning process. Port authorities should analyze the future position of the port. Strategic port planning has to explain strategies and formulate goals that will reach the port's competitive advantage with successful strategic intent objectives.

The strategic planning concept should focus on the question ‘How should we get closer to our strategic intent in the next years’.

STAGE 2: Fill the gap between ambitions and abilities

Strategic intent as identified in stage 1 could lead to explaining the difference between ‘what the specific port should do’ and ‘what the specific port can do’. To identify and have a detailed framework for this gap, ports should analyze their competencies and resources. Ports not only should examine their organization's strengths and weaknesses in this stage but also ports should analyze their competitive environments from the perspective of possible opportunities and threats.

STAGE 3: Create resources to fill the gap

To fill the gap between the port's abilities and ambitions port could create new resources. Abilities linking to the strength and weakness of the ports and ambitions link to threat and opportunities environments of the port. New valuable resources, plans, and perspectives should integrate into the strategic planning of the port at stage three which is called the development capacities and capabilities stage of the strategic port planning process. Ports consist of tangible and intangible capabilities and assets. Port managers measure the effectiveness of the port with the help of these capabilities and assets.

STAGE 4: Formulating the strategy and its implementation

After examining resources and core competencies needed to fill the gap between ambitions and abilities (what should the specific port do?-what is the specific port able to do?). The next stage of the strategic port planning process is finding applicable strategies to reach a competitive advantage in the port environment. Port's capabilities and resources are used effectively with help of the strategy formulation concept. Strategy formulation should design a strategy that makes the most effective

use of these core resources and capabilities.: For an applicable strategy formulation, ports have to:

- Identify goals and objectives related to the port environment
- Identify substantial targets
- Compare and develop different strategies

STAGE 5: Evaluate the effectiveness of chosen strategies

Evaluating stage of the process controls the gap between abilities and ambitions whether achieving the desired rate or not (Figure 86). From the perspective of 'Bottom-up' port planning approaches the port and its environment ensure the information to create a strategic plan for the port. General trends in global trade are very critical for port authorities to create a sustainable port planning process hence ports should follow the new changes in the global area and update their strategic port planning in terms of substantial changes (Notteboom et al., 2021: 495-500). Port authorities should aware of substantial changes that affect port organizations' operations in the maritime sector. From the perspective of the strategic port planning process, port managers challenge to pick the best-developed alternative in their port planning concept to control the risk and reach possible decent opportunities. Port managers should update their strategic plan to adapt to the opportunities and threats of the changing port environment. Future development subject is a significant part of the port strategic planning concept therefore managers should have a future perspective to analyze the port current position.

4.1.1.1. Strategic Analysis

Companies and businesses need to have strategic business planning for sustainable business development therefore strategic analysis is the best option to determine the framework of the ports or another company of the strategic business plan. Swot analysis is the best-known tool of strategic analysis to determine businesses' internal and external factors completely (Rudnicki and Vagner, 2014: 175-184). The strategic analysis comprises the process of determining research on a business and its

working area to create a strategy. From the perspective of business or academic use, describing the strategic analysis differ from one to another however process of analysis covers these common elements:

- i. Evaluating and identifying data with respect to the business strategy
- ii. Explaining the external and internal environments to be analyzed
- iii. Using different analytic tools such as Swot Analysis, Porter's five forces, and value chain analysis (CFI, 2021).

The company's leader should know his company's current position and future perspective hence strategic analysis takes data from the company's environment to help decision-makers in the company to decide on goals, priorities, and long-term strategies for the company. Data from the external and internal environments of the company help formulate strategy regarding the strategic plan. The strategic analysis gives a comprehensive perspective for decision-makers to see the overall picture of the company and this analysis consists backbone of the current and future strategies in terms of the strategic planning stage of the businesses. Strategic analysis is a substantial stage of long-term planning for businesses and it's an initial step in the strategic planning process (CPR, 2021). There are several analytical methods to make strategic analysis in the literature such as;

- i. SWOT analysis
- ii. Value chain analysis
- iii. Early warning scans
- iv. PEST analysis
- v. Four corner's analysis
- vi. Porter's five forces analysis
- vii. Wargaming (Downey, 2012).

4.2. RESEARCH AIMS OF THE STUDY

In the study, the One Belt One Road literature was examined in detail however only a limited number of studies related to the Maritime Silk Road and Economic Belt were reached. The studies on maritime and ports in Turkey were researched nevertheless a comprehensive study including the maritime silk road and economic

belt view could not be found. The official announcement of the Maritime Silk Road project was made in 2013, this could be the reason for the limited number of studies related to the Economic Belt and Maritime Silk Road.

In the strategic port planning literature, it is envisioned that ports will update their plans according to comprehensive changes in the global economy. The Maritime Silk Road project, especially OBOR, is one of the issues that should be addressed and studied in the long-term port plans for the next 10 to 30 years for ports. Considering the opinions of some experts China will be the greatest global power in the future. It is an obvious fact that such a huge project will develop rapidly under the leadership of China and will bring great innovation to maritime affairs. For this reason, more research and development must be carried out on this issue by port authorities. Additionally OBOR initiative will have been getting important in the next decades hence ports should prepare themselves for this new situation.

From the perspective of the port development concept, European Unions have published MSR reports and strategic analyses related to both the SREB and MSR part of the project. While China's strengthening economy and its impact on world trade are increasing rapidly, it will be valuable to analyze such a gigantic project in terms of Turkey's ports and to lead the steps that it will follow in the way that ports in Turkey will be a part of the project. The aim of the dissertation is to present alternative strategies that can be applied to the ports in the Turkish Aegean region and exhibit the best alternative for Turkish Aegean ports, to show them how they can benefit from the project without excluding the SREB effect, in particular on the MSR.

The purpose of evaluating the Turkish Aegean ports in the study is that they are both in a very convenient location on the sea Silk Road route and a convenient location for transit cargoes from the Black Sea. In addition, the Aegean region is at the crossing point of many transportation networks. In the study, it is desired to make a strategic analysis to reveal the current situation of the Turkish Aegean ports from the point of view of the MSR and SREB.

4.3. RESEARCH OBJECTIVES OF THE STUDY

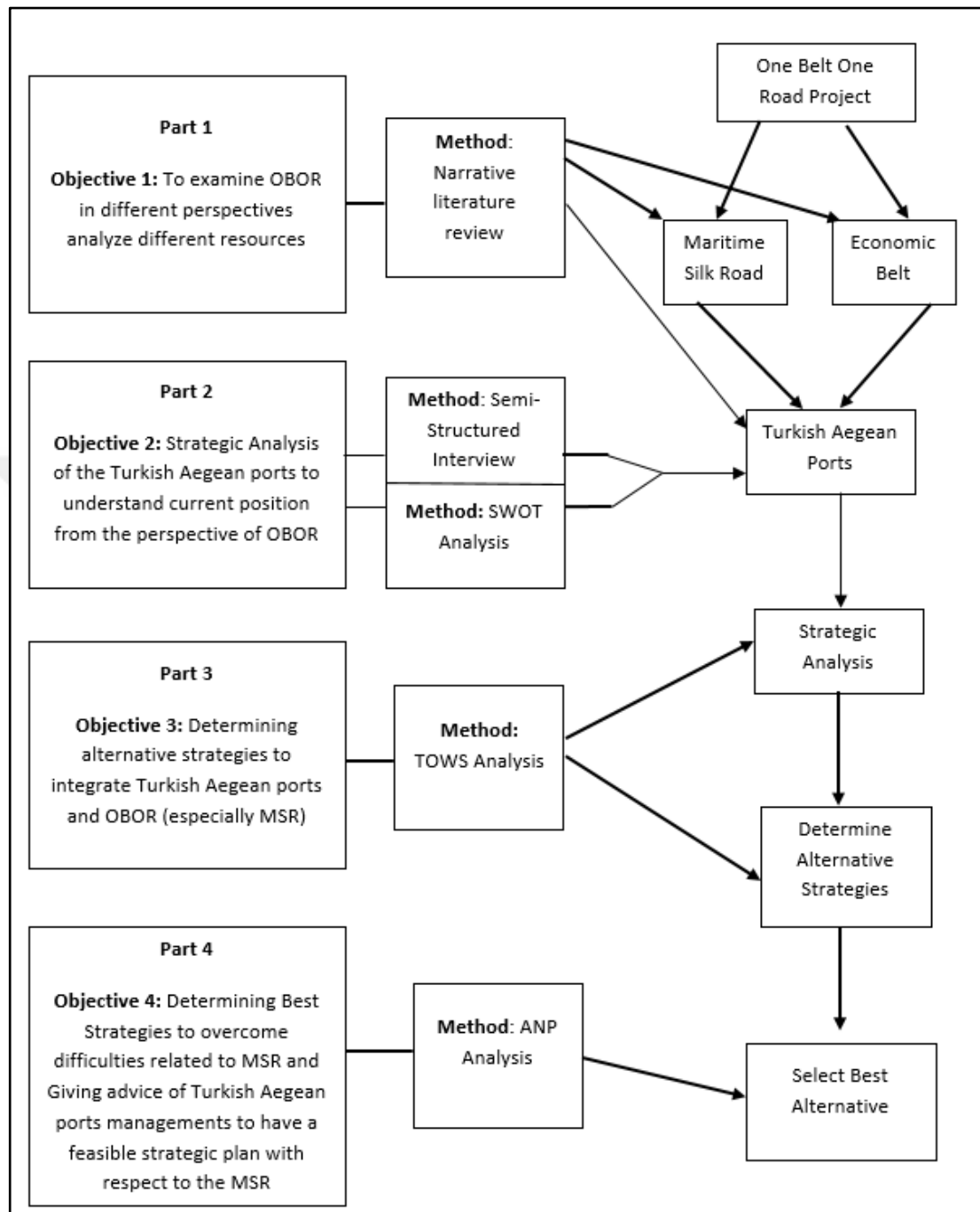
The conceptual framework of the study shows that four objectives were focused on in the dissertation (Figure 87). The first part of the study includes a literature review of the Maritime Silk Road and Economic Belt to understand what is this project mention. The strategic analysis comprises the process of determining research on a business and its working area to create a strategy. From the perspective of business or academic use, describing the strategic analysis differ from one to another however process of analysis covers these common elements:

- i. Evaluating and identifying data with respect to the business strategy
- ii. Explaining the external and internal environments to be analyzed
- iii. Using different analytic tools such as Swot Analysis, Porter's five forces, and value chain analysis (CFI, 2021).

The second stage of the dissertation covers the strategic analysis of the Turkish Aegean ports from the perspective of OBOR to show the current position of the ports with respect to the initiatives.

Companies and businesses need to have strategic business planning for sustainable business development therefore strategic analysis is the best option to determine the framework of the ports or another company of the strategic business plan. Swot analysis is the best-known tool of strategic analysis to determine businesses' internal and external factors completely (Rudnicki and Vagner, 2014: 175-184). The study will evaluate the strengths, weaknesses, opportunities, and threats of the ports in the region from the OBOR perspective, together with the regional 'Common Swot Analysis', which will be conducted within the scope of evaluating the possibility of the Turkish Aegean ports being a part of the OBOR project. Swot Analysis was preferred in the second part of the study to determine Swot sub-factors of the Turkish Aegean ports from the perspective of port authorities of the Turkish Aegean ports.

Figure 87: Conceptual Framework of the Study

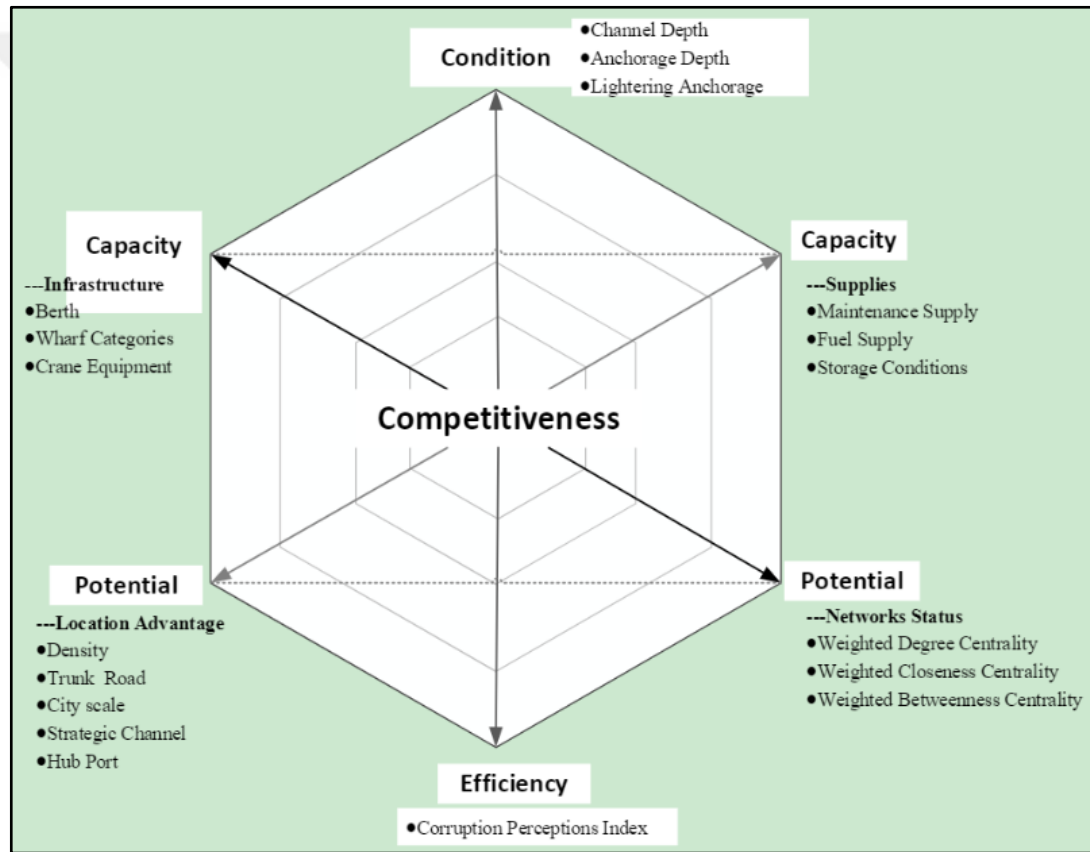


Source: Author's own elaboration

Semi-structured interview questions were prepared with respect to Condition Capacity Potential Efficiency Model factors of Peng (2018) (Figure 88) and with the help of five experts with knowledge that expert at port and OBOR initiative to find out Swot-sub factors of the Turkish Aegean ports. To be a part of the MSR port authorities must know the necessity of the MSR project. CCPE Model factors that determine port

competitiveness along the MSR were developed by Peng (2018) to show port's competitiveness along the route of the Maritime Silk Road. Variable of these models helped to learn what is substantial requirements for Ports to be a part of the Maritime Silk Road. Turkish Aegean port authorities answer the questions of the semi-structured interview of the dissertation. Strength, Weaknesses, Opportunities, and Threat sub-factors were determined in the second part of the second phase of the dissertation. The third part of the study covers alternative strategies that can be applied in the long term for the Turkish Aegean ports are revealed together with the TOWS analysis.

Figure 88: CCPE Model factors that determine port competitiveness along the MSR



Source: Peng et al., 2018: 852-867

To determine different alternatives with respect to Swot sub-factors of Turkish Aegean ports, experts help the last decision of the TOWS analysis. The last part of the study analyzes the section of the dissertation. To select the best alternative for the outcome of the TOWS analysis, the Analytic Network Process method was applied. By analyzing the results, it will be investigated how ready the ports in the Aegean region

are for the MSR project, and what measures the ports will take in the future with the project will be evaluated.

4.4. CONCEPTUALIZATION OF THE RESEARCH

There are two conceptualization methods that to make conceptualization of the research. Data and theory-driven and research-driven conceptual methods could be preferred in the research. Data and theory-driven conceptualization methods were preferred in this study. The data-driven conceptualization approach covers both primary and secondary data.

The topic of the dissertation is ‘Strategic Analysis of the Turkish Aegean Ports from the Perspective of One Belt One Road Project’. Before starting the study, it is necessary to clarify a few issues related to terminology. Belt and Road concept has created a new terminology of “old” and “new”. The idea of the Silk Road was found in the diary of a German geologist in the 1870s (SRF, 2018). At this stage, if there is no co-agreed conclusion about the name of the project, the name we encounter in the literature, in general, is called ‘One Road, One Belt’. As mentioned earlier, there is a wide range of uncertainty regarding the use of the ‘New Silk Road’ term in the literature, but Matura stated that the project name has been changed several times over the past few years and has been simplified as "One Belt, One Road" initiative (Matura, 2016: 6). The Silk Road has become one of the most remarkable geocultural forms of the modern age, day by day. The Silk Road story, which we can refer to as a depiction of antiquity and early globalization, appears in different countries with different interpretations by different authors. (SFR,2018). The terms of the project differ according to country, language, and even geography. As Van der Putten emphasizes, ‘One Belt One Road’ is the translation of the Chinese term 'yidai yilu' into English. But even Chinese officials and academics used a different terminology such as 'The Belt and Road Initiative (BRI) when speaking in English. According to a Clingendael report, “Chinese documents and sources are gradually replacing ‘One Belt One Road’ with the new acronym BRI” (Montesano and Heijmans, 2016: 16). Its name (BRI) was inspired by the Silk Road concept, which was founded two thousand years ago during the Han Dynasty. Chinese President Xi Jinping decided to put this name on this path in 2013 - an ancient trade route network that has connected China to the Mediterranean

over Eurasia for centuries (EB,2017). Indeed, many Chinese academics used the name of the project in this way. For instance, Wang Yiwei, a professor at Renmin University in China, used this terminology (The Belt and Road Initiative) in his book on what China will offer to the world. When reviewing the literature, the terminology chosen to refer to this project in French and Spanish refers to the new version of the old Silk Road (Van der Putten, 2016: 41-44), an alternative that also exists in English: “China’s New Silk Roads” used by academicians and it is possible to see this use in English sources.

There are significant problems with translating China’s President Xi Jinping’s mega project for an English-speaking audience. Less explain how this significant project called “in Chinese, it is called *yi dai yi lu*: literally, ‘one belt, one road’. Such correlative, four-character phrases are common in the Chinese language and imply balance, harmony, and wholeness. *Yi fu yi qi*, or ‘one husband, one wife’, is monogamy; *yi xin yi yi*, or “one heart, one soul” means wholeheartedly. Eyck Freymann at Oxford University completes his forthcoming book, which is called One Belt One Road” (Less, 2020). This research mostly uses, “One Belt, One Road” or its acronym (OBOR) because it is the literal translation of the Chinese name of the initiative and it is well-known among scholars (Liandrich, 2017).

The One Belt One Road project covers two main parts. The first part of the project is The land-based Silk Road Economic Belt initiative intended to create an infrastructure network of roads, rail, and oil pipelines stretched across the Eurasian continent (Toktomushev, 2016: 59-65). The "Silk Road Economic Belt" links China and Europe through Kazakhstan, Russia, and Belarus, which are increasingly used to transport transportation goods from China to Europe. A railway route between Europe and China that does not involve Russia however railway network could reach out to Russia in the near future. Land-based Silk Road Economic Belt connects Central Asia and Turkey via Azerbaijan and Georgia. China is also considering a comprehensive plan for a direct railway line between China and the United Kingdom via Kazakhstan, Uzbekistan, Turkmenistan, Iran, Turkey, Bulgaria, Romania, Hungary, Austria, Germany, Belgium, and France (Misiągiewicz, 2017: 38).

The second part of the project is 21st Century Maritime Silk Road. MSR project would be its proposed maritime equivalent, establishing a maritime corridor via a

system of linked seaports and different infrastructure systems (Toktomushev, 2016: 59-65). The “21st Century Maritime Silk Road”, as planned by the Chinese government, will greatly develop the connection between Europe and Asia and the Mediterranean Sea, between South Asia and East Africa, and through the western Pacific, the Indian Ocean. MSR initiative purposed at port development and improvement of trade routes in the Eastern Mediterranean region, Southeast Asia, and the Indian Ocean, China's participation in ports and other maritime-related infrastructure can be seen in the context of broader infrastructure projects under the "One Belt One Road Initiative" program (Misiągiewicz and Misiągiewicz 2017: 38).

In the strategic port planning literature, it is envisioned that ports will update their plans according to comprehensive changes in the global economy. The Maritime Silk Road project, especially OBOR, is one of the issues that should be addressed and studied in the long-term port plans for the next 10 to 30 years for ports. It is an obvious fact that such a huge project as the OBOR project will develop rapidly under the leadership of China and will bring great innovation in maritime affairs. Ports should get ready for OBOR especially MSR developments otherwise they could not compete with other ports in their area (Significance of the study). From the perspective of the research gap of the dissertation, based on the dissertation literature review and previous research related to Turkish Aegean Ports strategies, there is no comprehensive research related to the OBOR project. The research problem of the dissertation is the Turkish Aegean Ports hasn't got comprehensive strategies to apply next 30 years with respect to the OBOR project. The dissertation intends to present alternative strategies that can be applied to the ports in the Turkish Aegean region and exhibit the best alternative for Turkish Aegean ports, to show them how they can benefit from the project without excluding the SREB effect, in particular on the MSR.

4.5. THE THEORETICAL FRAMEWORK OF THE STUDY

Before explaining the theoretical background of the study; the research problem, the purpose of the study, the significance of the study, the research gap, and the research questions of the dissertations were given below.

Research Problem: The research problem of the dissertation is the Turkish Aegean Ports hasn't got comprehensive strategies to apply next 30 years with respect to the OBOR project.

Purpose of the study: The aim of the dissertation is to present alternative strategies that can be applied to the ports in the Turkish Aegean region and exhibit the best alternative for Turkish Aegean ports, to show them how they can benefit from the project without excluding the Economic Belt effect, in particular on the Maritime Silk Road.

Significance of the Study: In the strategic port planning literature, it is envisioned that ports will update their plans according to comprehensive changes in the global economy. The Maritime Silk Road project, especially One Belt One Road, is one of the issues that should be addressed and studied in the long-term port plans for the next 10 to 30 years for ports. It is an obvious fact that such a huge project as the OBOR project will develop rapidly under the leadership of China and will bring great innovation in maritime affairs. Ports should get ready for OBOR especially MSR developments otherwise they could not compete with other ports in their area.

Research Gap: Based on the dissertation literature review and previous research related to Turkish Aegean Ports strategies, there is no comprehensive research related to the OBOR project.

Main Research Question: What are the strategies of Aegean ports in Turkey to be part of the OBOR project and take benefit from it in the long term?

Sub Research Question: What is the most appropriate strategy among the alternative strategies for Turkish Aegean ports to be part of the OBOR and take benefit from it in the long term?

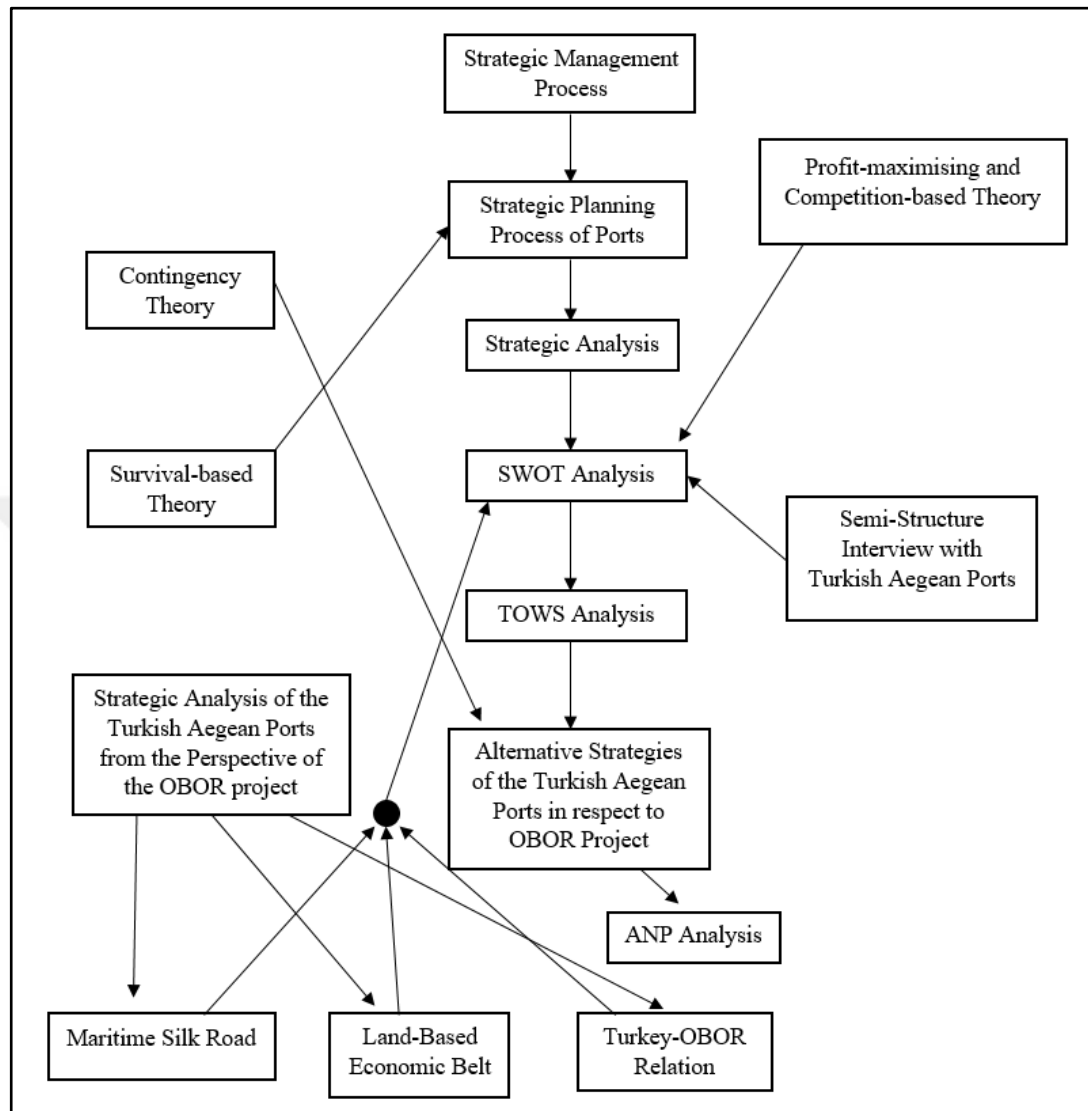
The background of the dissertation is based on three theories; survival-based theory, profit-maximizing and competition-based theory, and contingency theory. Survival-based theory indicates that a company or organization needs adapt to its competitive environment to stay alive (Omalaja and Eruola, 2011: 59-77). The firm should do it constantly because the business environment changes continuously (Otungu, et al, 2011: 232-237). The OBOR project is an international transportation initiative and will affect the global sea and land transportation therefore companies should adopt the new changes related to the project. The scope of the dissertation is

based on survival-based theory and this purpose will ensure the Turkish Aegean ports adapt to the OBOR project. In this dissertation, survival-based theory shows up with the strategic planning process of ports part.

The contingency theory specifies that there isn't a single way to manage organizations effectually (Omalaja and Eruola, 2011: 59-77), companies managers should be flexible and develop alternative strategies based on the current situation and impending external and internal changes related to current conditions (Raduan et al, 2009: 402-417). A semi-structured interview with Turkish Aegean ports will show the current position of the ports in regards to the OBOR initiative and TOWS analysis will expose the alternative strategies based on SWOT analysis of the Turkish Aegean ports. Different strategies will emerge with the TOWS analysis part of the dissertation and this method of the study is based on the contingency theory (Figure89).

Profit-maximising and competition-based theory support the assumption that profit maximization is the prior purpose of all companies and organizations. Also, in the long run, this theory is based on the establishment of a sustainable competitive advantage. This theory protects its validity today, as businesses compete not only within their own industries but also there is competition among the different industries (Vroom and McCann, 2010: 402-417). From the regional perspective of the Turkish Aegean area, Turkish Aegean ports need to compete with the other regions and ports along the route of the MSR. Semi-structured interview questions were prepared based on Peng's (2018) CCPE Model factors that determine port competitiveness along the Maritime Silk Road therefore SWOT and TOWS analysis part of the method will ensure that Turkish Aegean ports will procure profit maximization and compete with other regions in respect to the OBOR project.

Figure 89: Concept Map of the Dissertation



Source: Author's own elaboration

4.6. RESEARCH METHODS

In this study, five different methods were used to reach the best strategy for Turkish Aegean ports. The first method was the semi-structured interview method that was preferred for data collection from Turkish Aegean port authorities. In the data collection section of the dissertation, all parts related to semi-structured interviews were explained in detail.

Table 18: Port Strategy Literature

Authors	Research Titles	Methods
Mezak, V., Perić, A., & Jugović, A. (2006).	The Long-Term Port Development Strategy Planning Elements	SWOT and TOWS Analysis
Ussor, A. S., Kadir, A. R., & Kadir, N. (2021).	Strategic Development Of Makassar New Port Through Swot Analysis, Boston Consulting Group And General Electric	SWOT analysis , BCG (Boston Consulting Group), and GE (General Electric). QSPM method
Wang, X., Wu, P., & Huang, T. (2017).	Analysis of Logistic Strategy based on SWOT and AHP Methods	SWOT analysis and AHP method
Haezendonck, E., Pison, G., Rousseeuw, P., Struyf, A., & Verbeke, A. (2001).	The Core Competences Of The Antwerp Seaport: An Analysis Of "Port Specific" Advantages	Correlation analysis and Factor Analysis
Párraga, M. M., Gonzalez-Cancelas, N., & Soler-Flores, F. (2014).	DELPHI- SWOT tools used in strategic planning of the Port of Manta	DELPHI Method and SWOT Analysis
AHMED, T. (2017).	Development Of Payra Sea Port: Strategic Factor Analysis	SWOT Analysis and PEST Analysis
Dooms, M., & Macharis, C. (2003).	A framework for sustainable port planning in inland ports: a multistakeholder approach	SWOT Analysis and In-depth Interviews
Jiang, H. (2019).	Research on Qingdao Port Logistics Development under the Background of "Belt and Road	SWOT Analysis
Saeidi, N., & Jafari, H. (2015).	Analysis and Prioritization of Strengths, Weaknesses, Opportunities, and Threats of the Iranian Dry Ports Using SWOT and AHP Models	SWOT Analysis and AHP

Source: Author's own elaboration

Table 18 (continued)

Authors	Research Titles	Methods
Jafari, H., Jafari, H., & Loyes, C. (2013).	Strategic Analysis of Seaports using Multiple-Criteria Decision-Making Methods and TOWS	TOWS Analysis and ANP
Yousefi, H. (2013).	Strategic Planning for Port Development: Improvement of Container Transit from the Iranian Southern Ports Terminals	SWOT Analysis
Orive, C. O., Santiago, J. I. P. S., Orive, A. C. (2020).	Methodology Based On A Swot-Delphy-Came Analysis For The Evaluation Of Automated Container Terminals In Ports	SWOT Analysis, DELPHI-CAME
Sebt, M. H., Khalilianpoor, A. H., Bagheri, Q., & Riahi Dehkordi, E. (2018).	SWOT Analysis on Marine Transport Companies of Iran: a case study.	SWOT analysis and TOWS analysis

Source: Author's own elaboration

Ports strategy literature was researched to find out which method is preferred to determine strategies used by port authorities. Mezak et al. (2006), Usyor et al. (2021), Wang (2017), Haezendonck (2001), Párraga et al. (2014), Sebt et al. (2018), Ahmed (2017), Dooms and Macharis (2003), Jiang (2019), Seidi and Jafari (2015), Jafari et al. (2013), Yousefi (2013), Orive et al. (2020) preferred SWOT analysis to reveal the current position of selected ports (Table 18). Mintzberg et. all (1998), Porter (1991), Ansoff (1965), and Andrews (1987) emphasize that SWOT analysis is a crucial tool for decision-making in future perspectives of the companies. In the dissertation, the second method is SWOT analysis that one of significant the Strategic analysis methods in the literature. Swot analysis methods were preferred to learn the current situation of the Turkish Aegean ports with respect to the OBOR initiative. An elaborated explanation of the SWOT analysis was given in the data collection section of the dissertation.

Mezak et al. (2006) and Sebt et al. (2018) applied SWOT-TOWS analysis to reveal alternative strategies for their selected ports in their research. The third method in the study is TOWS analysis to find out alternative strategies for Turkish Aegean ports. TOWS analyses also were explained in the data collection part of the study. Three methods (Semi-structured interview, SWOT analysis, and TOWS analysis) were used for data collection for the data analysis part of the study.

The fourth method in the dissertation is ‘Analytic Network Process’ and the method was used to analyze all data and to select the best strategy for Turkish Aegean ports from the perspective of the OBOR project. Jafari et al. (2013) prefer ANP analysis for the select best strategy for their selected ports.

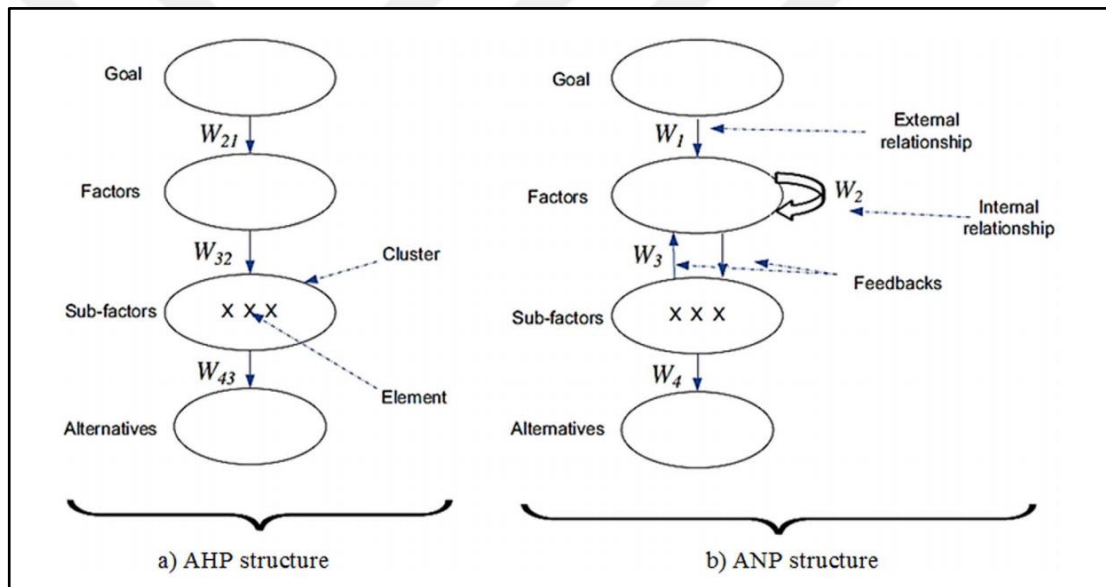
The last and fifth method was Analytic Hierarchy Process in this study. This method was used to the comparison the result of the AHP and ANP methods to demonstrate the ANP method’s certainty.

4.6.1. Analytic Network Process Analysis

Analytic Network Process is a multi-criteria decision-making method that involves different sub-criteria and criteria. ANP method was used to solve hierarchical problems that are having inner-outer dependencies (Gupta and Mishra, 2018: 905-909). ANP replaces the hierarchical model with a network model to solve multicriteria decision problems a analyze the complex relationship among the decision elements. Saaty (2005) explains that the ANP method is the generalization of the AHP method. All positive aspects of the Analytic Hierarchy process were used in the ANP method such as flexibility, simplicity, synchronous use of qualitative and quantitative measurement, and review of the judgments that are incoherent (Farazmand et al., 2020: 1-22). AHP is a comprehensive structure organized to deal with rational, irrational, and intuitive when multi-actor, multi-objective and multi-criteria decisions are made with or without certainty for several different alternatives. The AHP method indicates that there is the condition of independence of the cluster (upper part of the model) of the hierarchy structure from all its below parts and the items or criteria in each part of the AHP model assumption (Figure 90).

Decision-making problems cover the interaction of different factors with high-level factors depending on low-level factors occasionally therefore decision-making problems could not be formed hierarchically. In network systems, there is a feedback possibility among the clusters in a structured model since the problem is supposed to have functional dependencies. The difference between AHP and ANP is dependence and independence among the criteria or alternatives while solving the problem. Saaty proposed AHP if there is independence among the criteria and alternatives, on the other hand, if there is dependence among the criteria and alternatives ANP method is appropriate for the problem (Yüksel and Dağdeviren, 2007: 3364-3382.).

Figure 90: The Structural Difference between (a) a Hierarchy Model and (b) a Network Model



Source: Ervural et al., 2018: 1538-1550

One of the crucial advantages of the ANP method is a structured decision-making problem that includes several complicated relationships. In this method, the decision-maker can compare different sub-criteria that lie in interactions. ANP technique provides an opportunity pair-wise comparison of the under-the major criteria hierarchical structures are inadequate for explaining complicated decision-making problems. There could be an interaction between alternatives and criteria in the decision-making problem therefore decision-makers need to know the weight of all components in the problem model. The ANP technique uses the same pair-wise

comparison as the AHP technique. A pair-wise comparison of the 1 to 9 of Saaty (1980) was shown in table 12. (Sevcli et al., 2012: 14-24). Limit matrix, weighted matrix, and unweighted supermatrix are the three different types of matrices of the ANP method that were used for further analysis of the technique. To select the best strategy for decision-making problems ANP method was widely used in the literature. This dissertation structured a model by using the ANP method for selecting the best strategy for Turkish Aegean ports based on different alternatives, criteria, and sub-criteria (Gupta and Mishra, 2018: 905-909).

Table 19: ANP Method Pairwise Comparison Definition

Intensity of importance	Definition
1	Equal importance
3	Moderate importance
5	Strong importance
7	Very strong importance
9	Extreme importance
2, 4, 6, 8	Intermediate values (For a compromise between the above values)

Source: Liu et al., 2018: 23-39

4.7. RESEARCH SAMPLING

The sample of the study covers all Turkish Aegean Ports that can transport cargo of third-party companies on the Turkish Aegean side. The number of twelve ports was reached on the Turkish Aegean side in the literature. Port of Dikili, Ulusoy Çeşme Port, Port of İzmir, Güllük Port, Batılman Port, Ege Gübre Port, Nemport, Petkim Port, Socar Aliğa Port, Ege Çelik Port, IDÇ Port and Habas Port are the ports that located at Turkish Aegean area (Figure 91). Eight ports of the Turkish Aegean ports located in the Aliğa region ; Socar Aliğa Port, Batılman Port, Habas Port, Ege Gübre Port, Nemport, IDÇ Port, Petkim Port and Ege Çelik Port. Port of İzmir is

located in the center of the İzmir, Güllük port located close to Muğla province, Port of Dikili located in the Dikili district, and Ulusoy Çeşme port located in Çeşme district in Turkey. The aim of evaluating the Turkish Aegean ports in the study is that they are both in a very convenient location on the sea Silk Road route and a convenient location for transit cargoes from the Black Sea. In addition, the Aegean region is at the crossing point of several transportation networks.

Figure 91: Turkish Aegean Ports



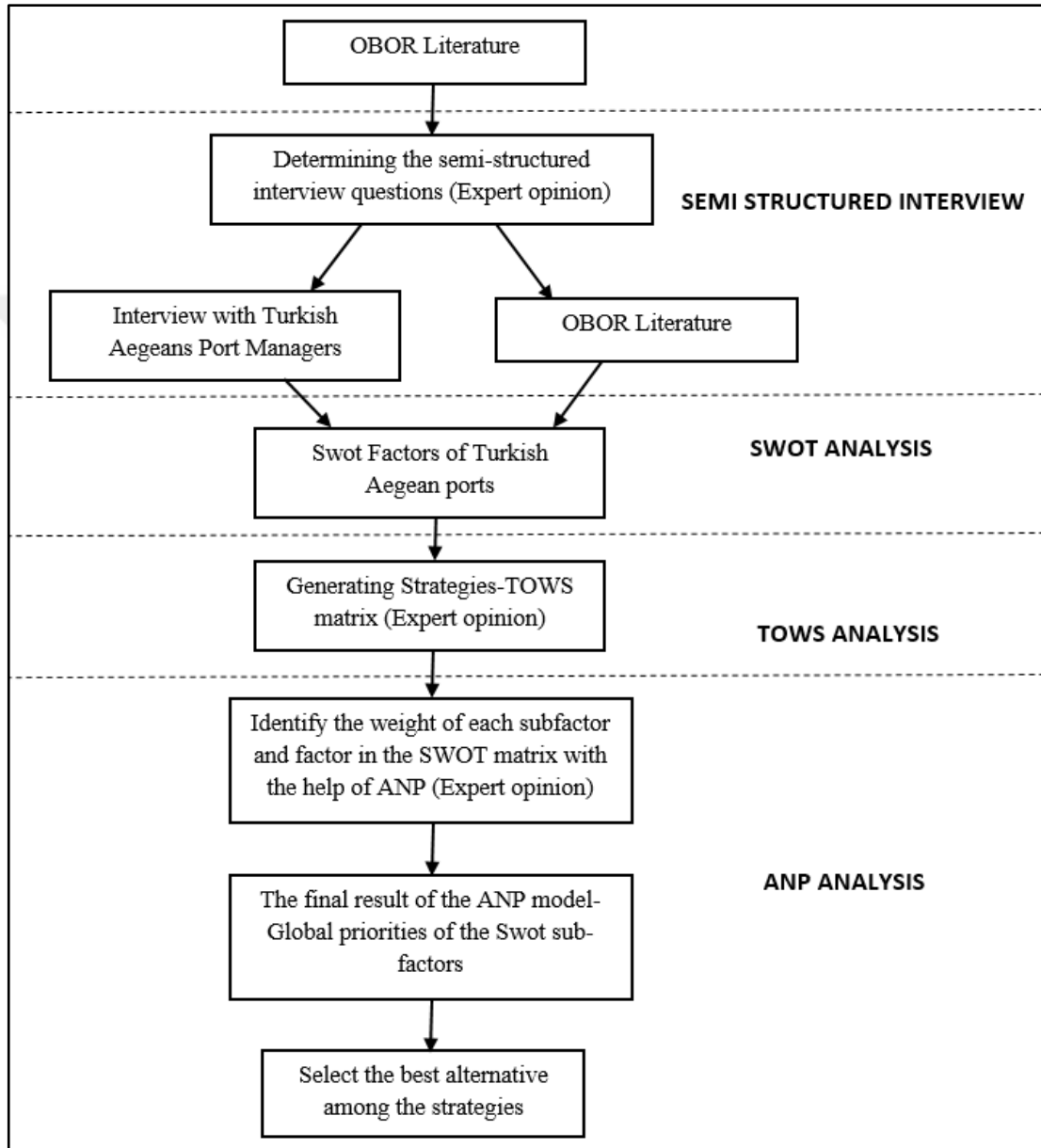
Source: Author's own elaboration Note: 1: Port of İzmir, 2: Ulusoy Çeşme Port, 3: Port of Dikili, 4: Güllük Port, 5: Batılman Port, 6: Ege Gübre Port, 7: Nemport, 8: Petkim Port, 9: Socar Aliğa Port 10: Ege Çelik Port, 11: IDÇ Port, 12: Habas Port

4.8. DATA COLLECTION

The dissertation has a three-part of data collection section. The first part of the data collection covers the literature review to determine of SWOT sub-factors of Turkish Aegean ports from the perspective of the MSR and SREB. The second part of the data collection section is semi-structured Interviews with Turkish Aegean ports to determine the SWOT sub-factors of the selected ports. The last part of the data collection section is TOWS analysis to find out alternative strategies for Turkish

Aegean ports. Determining alternative strategies for the Turkish Aegean ports constitutes the last part of the hybrid SWOT-ANP model before the data analysis for selecting the best alternative (Figure 92).

Figure 92: Phase of proposal hybrid SWOT-ANP model



Source: Author's own elaboration

4.8.1. Determining SWOT Sub-factors of Turkish Aegean Ports from the Perspective of MSR and SREB on Literature Review

SWOT analysis is the assessment and identification of the (1) strengths, (2) weaknesses, (3) opportunities, and (4) threats (Valentin, 2001: 54-69). The SWOT analysis method is one of the commonly used procedures for strategic planning (Phadermrod et. all, 2019: 194-203). Swot Analysis is generally preferred while extracting strategies related to selected companies or businesses (Ghazinoory, 2007: 99-108). To determination of the SWOT sub-factors of the Turkish Aegean ports detailed literature review was made. Based on Analytic Network Process, literature review or expert knowledge could be the method for designating the swot-subfactors of the ANP model. In this dissertation, both literature review and expert knowledge were preferred to pick SWOT sub-factors of the Turkish Aegean ports.

Table 20: SWOT Sub-factors of Turkish Aegean Ports from the Perspective of MSR and SREB Based on Literature Review

SWOT Factors	SWOT Sub-factors		Literature Comments Source
	Literature Comment	Expert Perspective on Literature Comment with respect to OBOR Project	
Opportunity	Along the MSR route, the Ports connectivity ratio will increase	Connectivity between Turkish Aegean ports and other MSR ports could increase.	(Aris, 2016), (Ruan et al., 2018), (Derudder, Lia, and Kunaka 2018), (Lu et al., 2018), (Xing et al., 2018)
Opportunity	MSR will help to develop ports along the Maritime Silk Road	Turkish Aegean could develop the current infrastructure and superstructure of its ports with the help of MSR investments.	(Wolff, 2016), (Lu et al., 2018), (Duchâtel, 2019), (Clemens, 2015), (Lam et al., 2018).
Opportunity	Credit capacity of the Chinese banks for new investments related to MSR	Turkish Aegean ports take new credit for long-term investment to be a part of MSR.	(Ghiassy et al., 2018), (Yu, 2017), (Callaghan and Hubbard, 2016), (Blanchard, 2018a), (Yhome and Chaturvedy, 2017)

Source: Author's own elaboration

Table .. (continued)

SWOT Factors	SWOT Sub-factors		Literature Comments Source
	Literature Comment	Expert Perspective on Literature Comment with respect to OBOR Project	
Opportunity	MSR will boost the trade activities along the route	Turkish Aegean ports take advantage of the MSR transactions.	(Duchâtel, 2019).
Opportunity	Turkey could be the logistic hub for the middle corridor of the OBOR	OBOR needs logistic hubs for many locations in the direction of the Project routes	(Inan and Yayloyan, 2018), (Bashir, 2018), (Dal, 2017), (Kulaklıkaya, 2013), (DBT, 2019), (Yesilyurt, 2019), (TKTC, 2019)
Opportunity	Turkey is part of the middle corridor of the SREB.	Increasing trade volume in the economic belt could affect positively ports near the route of the land route of the OBOR	(Esmer, 2017), (Kadılar and Ergüney, 2017), (Durdular, 2016)
Threat	Dept-trap policy of China in MSR port investments.	Turkish Aegean port management should be aware of this policy.	(Tweed, 2019), (Vox a, 2018), (Kuo and Kommenda, 2018), (Mou et al., 2018).
Threat	Acquisition of Piraeus Port by COSCO	Piraeus port is a candidate to be the hub port in Europe with respect to MSR	(Vassilopoulos, 2016), (et al., 2015), (Yang et al, 2018).
Threat	The negative attitude of world powers towards OBOR.	World powers could hinder Turkish Aegean port operations with their economical power.	(Brewster, 2015), (Ghiasy et al., 2018), (Hui-Yi, 2016), (Chan, 2015), (Yhome and Chaturvedy, 2017), (Szechenyi et al., 2018), (Haralambides, 2020), (Walker, 2019)

Source: Author's own elaboration

Table 20 shows the SWOT sub-factors of Turkish Aegean ports from the perspective of MSR and SREB based on the literature review. Six opportunities and three threat SWOT sub-factor were determined with the help of an expert team and these factors' trueness was checked by the Turkish Aegean port's interview. A detailed explanation of these nine swot subfactors (six opportunities and three threats) were given below.

OBOR will help increase shipping connectivity between Aegean and other ports (O-1):

Inadequate infrastructure and lack of connectivity remain significant problems for logistics and trade in several countries in the Europe and Asia region. OBOR project will help China's government to solve some of the challenges associated with its eastern regions which have inadequate transport infrastructure and have no great connection between the east and west side of the area. Besides, OBOR will lead to increase connectivity to assist the global expansion of regional businesses of the giant trading participants along the OBOR. On the other hand, this connectivity aspect affects Non-BRI countries to attend OBOR. The main encouragement of the participating countries of the MSR to attend this sea part of the initiative is economic support to their country through port infrastructure development (Clemens, 2015: 7-10). New terminal facilities and development of the port hinterlands will boost the trade activities along the MSR route (Wang et al., 2019: 2). Interaction between MSR ports will increase connectivity and trade capacity between the east and west point of the ports hence Chinese authorities and member countries intend to complete all missing parts of connection ports along the direction of the MSR. Especially, Chinese terminal operators try to be part of the initiative (Lam et al., 2018: 413). Limited shipping connectivity is one of the main problems for coastal countries that are part of Central Asia and the Caucasus. The most significant country is China in Europe and Asia transportation network since there are low cost and great connectivity of transportation network of China. Germany is the second most powerful country in the Eurasia transport network and Russia is the third country that has the most critical network via Europe and Asia regions. OBOR countries will have had a great connectivity rate since the infrastructure investment of OBOR gives alternative routes to its participants to take immediate action when they meet different transportation problems (Derudder, Lia, and Kunaka 2018: 11). Connectivity and transport

infrastructure can facilitate to improve of the industrialization process, and regional integration, attract foreign direct investment, enable strengthen the production network, trade expansion and increase the development of the economic growth. The connectivity index has been increasing day by day in OBOR corridors. In every aspect, the average connectivity rate of the OBOR countries is higher than other countries however connectivity rate of the participants lower than the European countries (Lu et al., 2018). Nodes of the shipping network will have been connected intensely with the help of the MSR initiative. Stability network and connectivity will have been ensured after the port investments finish (Xing et al., 2018: 1-6).

OBOR will help to develop the infrastructure of the ports along the MSR direction (O-2):

There are many enormous infrastructure projects related to the OBOR initiative hence transportation projects will have a great impact on the potential financial markets of OBOR. Chinese government establishes banks and financial institutions for a new investment project in OBOR therefore a great amount of money needed will inject new capital for development in the Asia region. Especially poor and developing countries will take advantage of new gigantic infrastructure projects (Wolff, 2016: 8). Connectivity and transport infrastructure can facilitate to improve the industrialization process, regional integration, attract foreign direct investment, enable strengthen production network, trade expansion and increase the development of the economic growth (Lu et al., 2018). Developed and underdeveloped countries may take advantage of the MSR initiative port management and infrastructure investments to boost their economical transportation network among the participants of the MSR countries and neighboring states (Duchâtel, 2019: 1-2). The main encouragement of the participating countries of the MSR to attend this sea part of the initiative is economic support to their country through port infrastructure development (Clemens, 2015: 7-10). New terminal facilities and development of the port hinterlands will boost the trade activities along the MSR route (Wang et al., 2019: 2). Interaction between MSR ports will increase connectivity and trade capacity between the east and west point of the ports hence Chinese authorities and member countries intend to complete all missing

parts of connection ports along the direction of the MSR. Especially, Chinese terminal operators try to be part of the initiative (Lam et al., 2018: 413).

Credit capacity of the Chinese banks for new investments related to OBOR (O-3):

New Silk Road Fund and Asian Infrastructure bank were established by the Chinese government to provide credit for OBOR initiative participating countries also Chinese companies. The organizing and regulation of multilateral significant financial corporations such as the Asian Infrastructure Investment Bank (AIIB) and Silk Road Fund (SRF), and the Chinese National Development plan, which ensure the implementation of different OBOR investments, will help invest in different types of OBOR projects. The Chinese government provides a large amount of money for the OBOR. These financial commitments are twenty-five billion dollars for the 21st Century Maritime Silk Road, forty billion dollars for Silk Road Economic Belt, forty billion dollars for Silk Road Fund, and Fifty billion dollars for Asian Infrastructure Investment Bank (Ghiassy et al., 2018: 16). The Asian Infrastructure Investment Bank will be a driver for China's Belt and Road Initiative, therefore, AIIB and OBOR intend to change the political and economic perspective of the Asia region which is the most economically vibrant and dynamic area of the 21st century (Yu, 2017: 353-368). China established this significant bank since China's government will be a multilateral lender for economic corridors and MSR hence China could de-politicize in the region as well as boost its prestige in the area. In brief, AIIB will be the flagship of the OBOR project (Callaghan and Hubbard, 2016: 116-139). The Chinese government has a great opportunity to design its global role with the help of financing tools such as lending money to MSR countries. Economic development is one of the crucial factors for any country in the world and strong states use economic situations as leverage to influence underdeveloped or developing countries (Blanchard, 2018a: 61-65). The Chinese government has many financial organizations such as the Export-Import Bank of China, the BRICS New Development Bank, Silk Road Fund, China Development Bank, China Investment Cooperation, Sinosure Credit Insurance, and Asian Infrastructure Investment Bank to lend money to economic corridor countries of MSR (Yhome and Chaturvedy, 2017: 33). Not only lending money is a method to affect

neighboring countries but also a letter of credit is another instrument to impress member states of MSR in terms of financial perspective. MSR countries use credit to complete their transport infrastructure to connect the main transport routes in the world that's why they intend to be part of this significant transportation initiative. A large amount of capital was supplied to complete the transport infrastructure of MSR by the Chinese government however, there is no clear data to show how much money will spend to establish all gigantic transportation projects in the initiative (Blanchard, 2018a: 61-65).

MSR will boost the trade activities along the route of MSR (O-4):

Developed and underdeveloped countries may take advantage of the MSR initiative infrastructure investments to boost their economical transportation network among the participants of the MSR countries and neighboring states (Duchâtel, 2019: 1-2).

Turkey could be the logistic hub for the middle corridor of the OBOR (O-5):

Turkish policymakers try to take a big enough piece from this tremendous transport project therefore Turkish government wants to be part of the OBOR project. Turkey and China signed a memorandum of understanding in 2015 to create different transport alternatives between the OBOR initiative and the middle economic corridor of the project. One of the significant reasons why the Turkish government wants to join the project is the vast amount of trade flow between the EU and China. Turkey will try to be a logistic hub for the middle side of the economic corridor and export markets of the OBOR initiative. Chinese companies intend to invest in OBOR members therefore foreign direct investment is another important aim for the Turkish side (Inan and Yayloyan, 2018: 6). Turkey has a geostrategic location and the shortest trade route between China and the EU. Turkey could be a logistic hub for the middle corridor, which links East and West which is why many companies could invest in Turkey. From the perspective of economic power in the economic corridors in the Obor project, Turkey is one of the strongest economic power in the middle corridor

which is why Turkey's government bargaining positions to guarantee its benefits are taken into account apart from the Chinese government's ambitious (Bashir, 2018).

Turkey is a member of the China-Central Asia-West Asia Corridor and China intends to invest approximately eight trillion dollars that consist forty billion dollars for transport infrastructure. Turkey will be the main player in this corridor's success therefore China and Turkey's relation getting closer concerning mutual benefits (Esmer, 2017). Turkey seeks to create a balanced policy between east and west however current developments of the world era, may orient turkey policymakers to east strategic opportunities such as SREB and MSR projects. From the perspective of the Turkish Government not only is commercial and economic gain important but also close ties between Turkey and China will ensure the strategic and geopolitical impact on world politics both on the global and regional scale (Dal, 2017). Turkey should play a major role in the middle corridors of the initiative with respect to creating regional cooperation between member countries of the OBOR that is why the Turkish government should have close relations with China regarding sticking points between the two countries. Entrepreneurs, policy-makers, and researchers should concentrate on the SREB and MSR of the project to create new initiatives related to these tremendous projects in Turkey (Kulaklıkaya, 2013: 1-7). The first action related to the OBOR initiative in Turkey was a cargo train called Trans-Caspian China Railway Express, coming from Xian through Bosphorus via the Marmaray tunnel to reach Europe on the 6th of November 2019 (DBT, 2019). The journey takes long 18 days and was completed in the Czech Republic by using China-Central Asia- West Asia corridor (RTMFA, 2020). In middle corridor development, this transportation makes dreams true for middle corridor countries and OBOR projects. Despite Europe and China's trade volume being approximately twenty-one trillion dollars which consists of only three percent of the transportation transactions (Yesilyurt, 2019), The Baku-Tbilisi-Kars railway project is an entry project to enter the middle corridor for the Turkish government therefore Turk gives a substantial role in this development to ensure to be a great partner of the OBOR initiative (DBT, 2019). Historic voyages of the Trans-Caspian transport route will help reinstate the Old silk road and the development of Turkey regarding transport infrastructure (TKTC, 2019).

Turkey is part of the middle corridor of the initiative (O-6):

BTK railway investment and Marmaray ensure attendance of the land side of the OBOR from the perspective of Turkey (Esmer, 2017). There is another chance for Turkey that could be a haven for transportation goods and capital. Turkey has a strong position when compared to the other regional powers in the region such as Georgia, Iraq, Iran, Azerbaijan, Syria, and Lebanon regarding economical and political situations. Turkey could be the locomotive power of the development stage of the middle corridor. It is fact that Turkey has a more valuable currency than other many countries in the area hence Turkey's government should improve its position to take advantage of the OBOR project with respect to the transportation infrastructure and diplomatic relations in the region (Kadılar and Ergüney, 2017: 89). Attendance of Turkey in the OBOR initiative allows the entrance of the Asia market for Turkish companies and the government. Turkey will be a key country between Asia and Europe to integrate international transportation routes in one area (Durdular, 2016: 77-97). Turkey is located at a key point in the economic corridors of the initiative Turkey has a significant geopolitical position, strong production, and high load potential of the Black Sea. Projects such as Baku-Tbilisi-Kars and logistics villages should be completed to consolidate these superiorities. Being involved in the OBOR initiative is a matter of importance not only for a specific mode of transport but for the future of the entire logistics industry (Esmer, 2017).

Debt-trap policy of China (T-1):

OBOR project has many positive aspects however project will leave some economic corridor countries saddled with debt such as Sri Lanka was enforced to sell the tenancy of a newly developed seaport to pay the eight-billion-dollar debt. OBOR participating countries should be aware of the debt trap of construction and infrastructure project since Chinese companies could buy tenancy of their enormous projects. Malaysia canceled its OBOR initiative pipeline project, which is worth three billion dollars, and the Malaysian government renegotiated a railway project to reduce costs from 33 billion dollars to 11 billion dollars. Maldives has the same problem as

any other country that is in the debt trap of OBOR projects. Myanmar's government also reduced its port construction debt from \$7.5 billion to \$1.3 billion (Tweed, 2019). Macro problems and risks always exist in international transportation hence enormous OBOR projects repayment credit rates cause trouble for participating countries. Some OBOR countries may exceed a sustainable level of debt. For instance, one of the significant OBOR projects the Kunming-Singapore railway cost approximately six billion dollars, which is forty percent of the GDP of Lao PDR therefore, expenditure on the construction and infrastructure systems related to the OBOR initiative could damage its economy more than its benefit (Vox a, 2018). Overseas 'debt-trap diplomacy' of China will affect many OBOR and non-OBOR countries. One of the key purposes of this policy is strategic concession since China's government leases a big amount of money for significant infrastructure projects such as ports and airports then they demand tenancy of these logistic hubs. China's major subject related to the OBOR project is to control the OBOR economic corridor areas to be the strongest world power. For instance, China's government wrote off an unpredicted debt owed by the Tajikistan region in exchange for approximately 1200 km of the disputed area. Laos, Mongolia, Djibouti, Pakistan, Kyrgyzstan, Maldives, and Montenegro are among the poorest in their respective countries and will owe more than half of all their foreign debt to China's government (Kuo and Kommenda, 2018). The Chinese government and financial institutions give money to MSR countries to complete their transport infrastructure, however; refunding a big amount of money is a real issue for under-developed countries. One of the significant criticism of the MSR is a debt-trap policy that countries cannot pay their debt to Chinese authorities (Mou et al., 2018: 2).

Acquisition of Piraeus Port by COSCO (T-2):

The destination of the port of Piraeus is so strategic with respect to the junction point of Asia Europe and Africa maritime trade routes. Chinese state-owned companies and private institutions give more importance to this European port than any port in the region since it is an opportunity to become the center port for MSR trade flow in terms of the logistics hub of Europe. Chinese Cosco Holding is the fifth largest terminal operator that purchased the Piraeus terminal and agrees with Greece

authorities regarding the approximately 23.986 m2 free trade zone inside the port hinterland. Chinese investors not only have the advantage of a position of the port Piraeus but also they will not give any taxes or duties to sell their goods from Beijing to European countries such as France, Germany, United Kingdom, Spain, and Italy in respect to the MSR transportation mechanism with the help of free trade zone (Vassilopoulos, 2016). The economic crisis affected Greece more than any country in the European Union hence Chinese investment seems like a rescuer for the country to economic rectification. Due to the need for foreign direct investment, the Greece authority sells a significant part of the port and then transfers all terminals to Cosco shipping. Piraeus port gives Chinese companies to make a move in the European goods and transport market which is why port Piraeus has so much importance from the perspective of Chinese authorities. This port not only allows transporting cargo from west to east but also has the potential to be the main transshipment hub in the area of the Mediterranean (Van der Putten et al., 2015: 9). Port of Piraeus container traffic shows that after the investment of the COSCO shipping, the performance of the port has increased dramatically and this development affects the Chinese image positively in the European area with respect to the current negative image of Chinese investors (Yang et al, 2018: 190-204).

The negative attitude of world powers towards OBOR (T-4):

India is one of the biggest power in the region and the Indian government has an opposing view about the OBOR project. Several nations in the region have security concerns related to new infrastructure and investment projects in OBOR economic corridors. India could create impediments to establishing MSR because of security issues. For instance, China's government's ambition is military and its economic presence in the Indian Ocean area was known by every authority in the region (Brewster, 2015). South China Sea issue is a significant problem among the South Asian states and China (Ghiassy et al., 2018: 16), South Asian countries indicate that there is security concern about Chinese ambition in the region economically, politically, and militarily (Hui-Yi, 2016: 63-95). Asian countries intend to ensure protect their country and territorial waters (Blanchard, 2018: 329-343). The official

starting point of the MSR is China and South Asia coastal areas therefore, ASEAN countries have importance from the side of the Chinese government. China should solve critical problems related South China issue to complete the MSR initiative completely (Chan, 2015: 1-3). Member states of ASEAN countries try to protect their right with respect to the territorial sea disputes of the South China Sea and the Chinese government claim that a major part of the marine resources belongs to China (Yhome and Chaturvedy, 2017: 33). United States is outside of the originally MSR route however it will be a connection through other routes to MSR passage. One of the most significant aims of the USA in the Indo-Pacific region is reduce to China's influence in the region in terms of economy and politics. Even though The Trans-Pacific Partnership was a supporter organization of the USA, China was against the policy in the region, the USA withdraw from the organization. MSR initiative may affect the economic relations between the USA and other countries in South Asia and beyond negatively. China is the second world power in the world therefore, the USA wants to keep China's government power at the same level or lower. Based on the challenge between the two world power, not only does the USA has policies to reduce China's influence in the region but also China invited the Caribbean and Latin American countries to join MSR and SREB in the initiative to increase its's influence in America's backyard. High-ranking American military personnel indicates that MSR and land part of the project could be a security problem for the United States soon in terms of cooperation between USA partners and put at risk communication networks (Szechenyi et al., 2018: 1-32). Several European countries are against Chinese investments in their region, therefore, there are strict regulations to block Chinese companies' initiatives however Cosco shipping succeed to take a hundred percent of the Piraeus port. The EU strategy on China's government examines the principles of China-EU relations, involving infrastructure collaborations that seek mutual benefit between the TEN-T (Trans-European) transport networks. These principles cover reciprocity, transparency, and adherence to global standards, i.e. a level playing field for Chinese and EU companies in the China and European Union area. Infrastructure projects and other investments of Chinese companies must meet European Union internal market regulations on technical standards and public procurement. Despite China having many initiatives in the European region, environmental, sustainability,

and social assessments were controlled by EU authorities for the Chinese government and private firms continuously. The conflict between China and the USA affects China's economic development and various sectors in China negatively. Retail sales, industrial production, and level of investment have a downward rate due to the block of the USA in almost every sector in China. Many other factors could directly affect the down rate of production, sales, and investment, however, USA pressure is one of the significant factors which causes trouble in the Chinese economy (Walker, 2019).

4.8.2. Semi-Structured Interviews with Ports to determine Swot Sub-Factors of Turkish Aegean Ports:

A semi structured-interview method is a verbal interchange tool where the interviewer, tries to take information from the interviewee by asking questions. The interviewer prepares a list of predetermined questions before the interview however in the conversation process interviewer focus on specific issues that he feels are significant for the interview (Longhurst, 2003: 143-156). Determination of six opportunities and three threat subfactors of the Turkish Aegean ports from the literature, to complete the missing part of the SWOT-subfactors of the Turkish Aegean ports ANP model, semi-structured interviews were realized with twelve Turkish Aegean ports competent. Peng's (2018) CCPE Model factors that determine port competitiveness along the MSR were adopted as the semi-structured interview questions with the help of the expert team. Based on expert knowledge, Peng's (2018) CCPE Model factors that determine port competitiveness along the MSR were updated in Table 21. Current Condition, Capacity, Potential, and Efficiency factors were converted into the interview questions to determine Turkish Aegean ports Swot-subfactor from the perspective of MSR considering the SREB effect.

This dissertation will evaluate the strengths, weaknesses, opportunities, and threats of the ports in the region from the OBOR perspective, together with the regional 'Common Swot Analysis', which will be conducted within the scope of evaluating the possibility of the Turkish Aegean ports being a part of the OBOR project. Common

Table 20: CCPE Model Factors that Determine Port Competitiveness Along the MSR
(Condition) (Capacity) (Potential) (Efficiency)

Condition	Capacity
C1-Channel Depth C2- Anchorage Depth C3- Lightering Anchorage	(Service) S1- Maintenance Supply (water, food, and repair services) S2- Fuel Supply S3- Storage Conditions (Infrastructure) I-1 Berth I-2 Wharf Categories I-3 Crane Equipment
Potential	Efficiency
(Density) P-1- Railway network P2- Highway network P-3- Trunk Road P-4 City Scale P-5 Strategic Channel (distance to the strategic transport routes) P-6 Hub Port (distance to the hub ports)	E-1 Customs Clearance Time

Source: Adopted by Peng et al., 2018: 852-867

Swot Analysis perspective demonstrates the general condition of the Turkish Aegean port's position against other regions in the MSR route. At the end of the semi-structured interviews, eight strength subfactors (channel depth, anchorage depth, fuel supply, highway network, trunk road, distance to strategic transport routes, distance to hub ports, and maintenance supply), eight weakness subfactors (lightering anchorage, storage conditions, berth sufficiency, wharf categories, crane equipment, railway

network, customs clearance time, distance to major cities), one opportunity subfactor (route of MSR) and one threat subfactor (uncertainty of the MSR transport routes) were determined. A detailed explanation of the Swot subfactors found from semi-structured interviews were given below.

4.8.2.1. Strengths Sub-Factors

Eight strength Swot subfactors were reached such as Channel Depth, Anchorage Depth, Fuel Supply, Highway Network, Trunk Road, Distance to Strategic Transport Routes, Distance to Hub Ports, and Maintenance Supply based on semi-structured interview answers. A detailed explanation of the Strength swot subfactors were given below.

Channel Depth (S-1):

The minimum guaranteed water depth of an approach channel is referred to as the standard water depth of the channel. It guarantees the minimum necessary ship's draft at the lowest navigable water level in accordance with the environmental conditions of the region. Lower depth compared to the vessel drafts would restrict the entry of large ships. Peng (2018) indicate that 'Channel Depth' is the crucial factor for ports to be a competitor for ports along the MSR. In the Semi-structured interview part of the dissertation, 'Is the channel depth sufficient for the ships with large drafts coming to the port along the path followed by the ships?' question was asked to port managers to find out the Turkish Aegean port's channel depth suitability for larger ships. Eight of the twelve ports were located in the same area, therefore, answers to the question were almost the same; these ports have no problem with larger ships' entry in terms of channel depth of the area. One of four ports that have a different location from other ports also has a problem with channel depth. Only the manager of the P1 indicates that there is a lack of channel dept height hence large ship could not berthing the port. From the perspective of Common Swot Analysis of the Turkish Aegean ports, eleven of the twelve ports have no problem related to the 'Channel Depth' factor, therefore 'Channel Depth' is a strength sub-factor for the selected ports.

Anchorage Depth (S-2):

Anchorage Depths are referred to as the area where the ships are safely and securely anchored to protect them from the wind and wait for pilotage, inspection, and other operations the ships. Pang's (2018) CCPE Model factors that determine port competitiveness along the Maritime Silk Road indicate that 'Anchorage Depth' is one of the significant factors for the port condition to compete with other ports in the region. In the Semi-structured interview part of the dissertation, 'Do ships coming to the port and having to wait for cargo operations have problems in terms of anchoring depth?' question was asked to port managers to find out Turkish Aegean port's anchorage depth suitability for ships. Answers to the question find out that Ships can anchorage easily to wait for its operations. 'Anchore Depth' is a strength sub-factor for Turkish Aegean ports with respect to the OBOR project.

Fuel Supply (S-3):

The fuel supply parameter indicates the availability of diesel oil or fuel for the ship berthing at the port. The effectiveness of the service capabilities reflects the bunkering supply quality service of the ports (Wang et al., 2014: 358-365). Based on maritime competitiveness along the MSR, 'Fuel Supply' is the determinant factor for ports to be competitive in regard to a capacity parameter of the ports. In the Semi-structured interview part of the dissertation, 'Do refueling services provided to the ships in the port?' the question was asked to port managers to find out about the Turkish Aegean port's fuel supply service availability. The port manager specifies that there is a direct or indirect fuel supply service for ships berthing the port hence 'Fuel Supply' is a strength sub-factor for Turkish Aegean ports.

Highway Network (S-4):

In the dissertation, the highway network indicates the availability and quality of the road between the port and its business partners in terms of good transportation along its hinterland. 'Highway Network' is the factor that determines the port

competitiveness along the MSR. In the Semi-structured interview part of the dissertation, ‘Does the road connection of the port enable you to trade efficiently between the port hinterland and your business partners?’ the question was asked to port managers to find out Turkish Aegean port's highway network quality and availability among its business partners. Turkish Aegean port managers specify that there is no problem related to the highway network between its ports and hinterland.

Trunk Road (S-5):

Trunk road is the major road connecting several cities, airports, ports, and different places which is a highly recommended route for freight traffic and long-distance. The density part of the CCPE Model factors that determine port competitiveness along the MSR table 20 shows that ‘Trunk Road’ is one of the potential segment factors that affect the port competitiveness along the direction of the MSR. In the Semi-structured interview part of the dissertation, ‘Does the port have a direct connection with the main roads?’ question was asked to port managers to find out Turkish Aegean port's ‘Trunk Road’ connection was sufficient. The port manager of the Turkish Aegean ports commented that their port location is close to Trunk roads to transport cargo efficiently.

Distance to Strategic Transport Routes (S-6):

The Turkish Aegean area is close to core and secondary routes of maritime transportation. The Aegean region is a part of the Suez canal transportation network. Bosphorus and Dardanelles strait also has a positive impact on the handling capacity for Turkish Aegean ports. In the Semi-structured interview part of the dissertation, ‘How do you evaluate the position of the port in terms of international sea routes, straits, passage and constantly used sea routes?’ question was asked to port managers to find out the location significance of Turkish Aegean port's in terms of international sea routes and important straits and passage. Port managers indicate that between the Black Sea, Europe, and Suez Canal, the Turkish Aegean has a great location to increase the capacity of cargo handling with the effect of the OBOR initiative.

Distance to Hub Ports (S-7):

Hub Port is a transportation area that covers the function of goods transshipment as a being hub port and a key element for manufacturing and economic sectors along with the connection of shipping network feeder systems and inland transport throughout its hinterland (Lec, 2021). The Turkish Aegean region is close to Europe, between the east and west, and the black sea, there is a great volume of transportation along the routes of the MSR. There are many hub ports in the European sea transportation area close to the Aegean area such as Port of Rotterdam, Port of Antwerp, and Port of Hamburg. In the Semi-structured interview part of the dissertation, ‘How do you evaluate the location of the port in terms of distance to the hub ports and connection of the hub ports transportation network?’ question was asked to port managers to find out the location importance of Turkish Aegean port's in terms of hub ports transportation network and location of the hub ports. Port managers of the Turkish Aegean ports comment that the Turkish Aegean area has great location related to hub port location and hub ports transportation network. They indicate that their handling capacity could increase with the help of the OBOR initiative to be a part of the hub ports transportation network in the European area.

Maintenance Supply (S-8):

One of the CCPE Model factors that determine port competitiveness along the MSR is ‘Maintenance supply’ and the meaning of the maintenance supply covers the availability of water, food, and ship repair services for ships berthing the ports. In the Semi-structured interview part of the dissertation, ‘Do you provide food, water supply, and maintenance-repair services for the ships in the port?’ question was asked to port managers to find out the availability of the water, food, and ship repair service in the ports. The port manager of the Turkish Aegean Ports specify that water supply and food supplies were given to the ships that came to the port. Ship repair services are provided on a small scale in direct or indirect ways in the ports.

4.8.2.2. Weaknesses Sub-Factors

Eight Weaknesses Swot subfactors were reached such as Lightering Anchorage, Storage Conditions, Berth Sufficiency, Wharf Categories, Crane Equipment, Railway Network, Customs Clearance Time, and Distance to Major Cities based on semi-structured interview answers. A detailed explanation of the Weaknesses swot subfactors were given below.

Lightering Anchorage (W-1):

Larger ships have the advantage of the economies of scale in maritime transportation but also big dimensions of the ships cause difficulty and restrictions when ships call ports. Loaded very large crude oil carriers and ultra-large crude oil carriers could only reach the berthing area if the port draft is proper for the ship and the access channel has sufficient depth and width. Alternatively, fully loaded large tankers could be lightened with the lightering operation on the offshore to berthing the port if the port draft and access channel are insufficient. ‘Lightering Anchorage’ means the availability of the service of the ports to lightering ships for berthing (Lataire et. al, 2011: 211-222). In the Semi-structured interview part of the dissertation, ‘Do you carry out offshore load lighting operations on ships that have the draft and access channel problems while berthing the port?’ question was asked to port managers to find out the availability of lightering operations in the ports. According to the answer of the competents, there is no or limited lightering operation in Turkish Aegean ports.

Storage Conditions (W-2):

Meaning of the ‘Storage conditions’ sub-factor is the area that available for storage cargo in or out of the port area for the port’s customers. In the Semi-structured interview part of the dissertation, ‘Do you consider existing storage space sufficient due to unexpected increase the cargo capacity and ship berthing frequency in consequence of One Belt One Road project?’ question was asked to port managers to find out the storage conditions of the ports from perspective of OBOR project. Port managers indicate that their storage areas are sufficient for current situations however

if the number of ships coming to the port increases they need extra investment related to new storage areas.

Berth Sufficiency (W-3):

Berth sufficiency is an infrastructure determinant of the CCPE Model factors that determine port competitiveness along the MSR. More berths are an indicator of the larger ports and the number of berths remarks port's size (Pang, 2018). In the Semi-structured interview part of the dissertation, 'Considering the One Belt One Road project, do you think the number of berths of the port is sufficient against a possible cargo handling demand increase in the future?' question was asked to port managers to find out the berth sufficiency of the ports in respect to OBOR initiative. Port managers state that their berth number and capacity are not suitable for the increasing demand at the port concerning the OBOR initiative.

Wharf Categories (W-4):

'Wharf categories' cover the infrastructure capable of handling different types of ships such as bulk carriers, container ships, tankers, and roll-on/roll-off ships (more different types of ships reflect high functionality) (Pang, 2018). 'What type of cargo do you serve at the port?' question was asked to port managers to find out different types of ship handling capability of the port. P1 port manager specifies that the P1 port handles all types of cargo including general cargo, container, dry bulk, and roll-on/roll-off cargo. P2 port only handles Ro-ro cargo and the other ten ports handle two different types of cargo therefore from the perspective of common swot analysis perspective, 'Wharf Categories' is a weakness sub-factor for the area based on Pang (2018) and expert view since selected ports could not handle all types of cargo.

Crane Equipment (W-5):

'Crane equipment' is one of the CCPE Model factors that determine port competitiveness along with the MSR. 'Crane equipment' of the ports reflects the

capacity for concurrent unloading and loading operations. In the Semi-structure part of the dissertation, ‘Regarding the One Belt One Road project, do you think you have sufficient handling equipment in case of a possible cargo handling demand increase in the future?’ question was asked to port managers of the Turkish Aegean ports. They indicate that their current crane equipment number and capacity are enough for routine transportation activities however regarding the OBOR project their crane equipment is insufficient due to demand increase in the future.

Railway Network (W-6):

In the study, the railway network reflects the availability and quality of the railway network between the port and its business partners in terms of good transportation along its hinterland. ‘Railway Network’ is the factor that determines the port competitiveness along the MSR. ‘Does the railway connection of the port enable you to trade efficiently between the port hinterland and your business partners?’ the question was asked to port managers to find out Turkish Aegean port's railway network quality and availability among its business partners. Turkish Aegean port managers specify that Only P1 port has a railway connection, other ports have no direct railway connection between their hinterland and business partners.

Customs Clearance Time (W-7):

‘Customs Clearance Time’ is the CCPE Model factor that determines port competitiveness along the Maritime Silk Road in terms of the efficiency of the ports. Shorter custom clearance time reflects shorter transportation time from exporter to importer. In the semi-structured interview part of the study, ‘Do you think that the customs clearance time spent for an average cargo in the port is enough for the port to be a competitive port?’ question was asked to port managers to find out custom clearance time efficiency in the ports. Port managers comment that custom clearance time could be shorter with pratic solutions. They sometimes had some problems with customs clearance time since waiting for bureaucratic procedures.

Distance to Major Cities (W-8):

The influence capacity of the neighboring cities reflects the effect of the enclosing urban locations on port development. Pang (2018) explain that distance between major cities and port is one of the substantial factors of port development. If the major cities were more close to the port, it has to be more potential for development regarding future investments. ‘How do you evaluate the port location in terms of distance to central cities?’ question was asked to port managers to find out the location significance of the ports in terms of SWOT analysis of the Turkish Aegean ports. Only P1 port is located at the center of one of the major cities. Other ports are located far away from the major cities hence from the common swot analysis of the Turkish Aegean port's perspective ‘Distance the Major Cities’ is a weakness sub-factors for the selected ports.

4.8.2.3. Opportunities Sub-Factors

In the literature review of part of the study, to determine the SWOT sub-factors of the Turkish Aegean port’s SWOT analysis, six opportunities SWOT sub-factor were specified. In the Semi structure interview part of the dissertation, literature findings were asked to port managers to check the trueness of the literature comment related to Turkish Aegean ports. Port managers accepted all literature comments such as ‘Along the MSR route’, ‘the Ports connectivity ratio will increase’, ‘MSR will help to develop ports along the Maritime Silk Road’, ‘Credit capacity of the Chinese banks for new investments related to MSR’, ‘MSR will boost the trade activities along the route’, ‘Turkey could be the logistic hub for the middle corridor of the OBOR’, ‘Turkey is part of the middle corridor of the Economic Belt’. Apart from literature comments, port managers indicate that ‘Route of MSR’ is another opportunity sub-factor for Turkish Aegean ports.

Route of the MSR (O-7):

MSR route goes through near the Turkish Aegean area and it will be an advantage for the ports in the Turkish Aegean region. In the Semi-structured interview part of the dissertation, ‘What are the opportunities that the One Belt One Road project will provide for the port?’ question was asked to port managers to find out the opportunity sub-factor of the Turkish Aegean ports. The common opinion of the port managers is that the ‘Route of the MSR’ is an opportunity for the region since the main route of the MSR has a close connection with the Turkish Aegean region.

4.8.2.4. Threats Sub-Factors

To determine the SWOT sub-factors of the Turkish Aegean port’s SWOT analysis literature review was realized in the previous section of the dissertation. Three threats sub-factor of the SWOT analysis were specified in the literature review such as ‘Dept-trap policy of China in MSR port investments’, ‘Acquisition of Piraeus Port by COSCO’, ‘The negative attitude of world powers towards OBOR’. Apart from literature comments, port managers indicate that ‘Uncertainty of the MSR transport routes’ is another threat sub-factor for Turkish Aegean ports.

Uncertainty of the MSR transport routes (T-4):

OBOR initiative is open to new development related to transport routes hence project routes could change in the future based on new participation. In the Semi-structured interview part of the dissertation, literature findings were asked to port managers to check the trueness of the literature comment related to Turkish Aegean ports. There is consistency between literature comments and port managers’ opinions therefore all literature comments with semi-structured output help determine the SWOT threat sub-factors. ‘What could be the threats posed by the OBOR project for the port?’ question was asked to port managers of Turkish Aegean ports to find out threats sub-factors of the SWOT analysis of the Turkish Aegean ports from the

perspective of the OBOR project. Port managers indicate that ‘Uncertainty of the MSR transport routes’ is a possible threat sub-factor for their ports.

4.8.3. TOWS Analysis to find out Alternative Strategies for Turkish Aegean Ports

A TOWS analysis method covers the process same as a SWOT analysis of listing (1)strengths, (2)weaknesses, (3)opportunities, and (4)threats. Despite that the first stage of the TOWS analysis is an examination of threats and opportunities, the second stage includes an examination of the weakness and strengths. The TOWS analysis method was developed (1982) as a two-box by two-box matrix. The purpose of the method is to determine strategies based on SWOT sub-factors such as internal factors (strength or weaknesses) and external factors (opportunities or threats). There are four different TOWS analysis strategies (S-O, S-T, W-O, W-T) to find out alternative strategies related to SWOT sub-factors, and these are summarized below.

- i. *Strength-Opportunity strategy (S-O)*: Alternative strategies that use strength sub-factors to maximize opportunities sub-factors. This strategy is called a maxi-maxi strategy.
- ii. *Strength-Threat strategy (S-T)*: Alternative strategies that use strength sub-factors to minimize threats sub-factors. This strategy is called a maxi-mini strategy.
- iii. *Weakness-Opportunity (W-O)*: Alternative strategies that minimize weaknesses sub-factors by taking advantage of opportunities sub-factors. This strategy is called a mini-maxi strategy.
- iv. *Weakness-Threat (W-T)*: Alternative strategies that minimize weaknesses sub-factors and avoid threat sub-factors. This strategy is called a mini-mini strategy (Ravanavar and Charantimah, 2012: 87-90).

Based on the SWOT sub-factors of the Turkish Aegean ports (Table 22), TOWS analysis was generated with the help of expert knowledge. TOWS strategies are ‘Trying to be Main Port along to MSR Route (SO-1)’, ‘Acquiring Credit for New Investment Related to the Port Strategic Position (SO-2)’, ‘Integration Road-Side of

the Initiative with Sea-part to increase trade volume (SO-3)', Longterm Port Investment to Develop Port Infrastructure (WO-1), Increasing Capacity of the Port

Table 22: SWOT Sub-factors of the Turkish Aegean Ports

Internal factors	
Strengths (S)	Weaknesses (W)
S1- Channel Depth S2- Anchorage Depth S3- Fuel Supply S4- Highway Network S5- Trunk Road S6- Distance to Strategic Transport Routes S7- Distance to Hub Ports S8- Maintenance Supply	W1- Lightering Anchorage W2- Storage Conditions W3- Berth Sufficiency W4- Wharf Categories W5- Crane Equipment W6- Railway Network W7- Customs Clearance Time W8- Distance to Major Cities (City Scale)
External factors	
Opportunities (O)	Threats (T)
O1- Increasing port connectivity O2- MSR will help to the development of ports O3- Credit capacity of Chinese banks O4- MSR will boost the trade O5- Turkey could be the logistic hub O6- Turkey is part of the middle corridor O7- Route of the MSR	T1- Dept-trap policy of China T2- Acquisition of Piraeus Port by COSCO T3- Negative attitude of world powers T4- Uncertainty of the MSR transport routes

Source: Author's own elaboration

Superstructure with New Investment (WO-2), Taking Advantage of the Port Position Against its Competitor (ST-1), Taking Advantage of the Port Position Against its Competitor (ST-1), Contact with Different Investors Except for Chinese to Spreading

Risk (WT-1), Turkish Aegean Ports could act Together to be a Part of MSR (WT-2) (Table 23).

Table 23: TOWS Strategies of the Turkish Aegean Ports

SO Strategies	ST Strategies
SO-1- Trying to be the main port along to MSR route SO-2- Acquiring credit for new investments related to the port strategic position SO-3- Integration Road side of the initiative with sea part to increase trade volume	ST-1- Taking advantage of the port position against its competitor
WO Strategies	WT Strategies
WO-1- Longterm port investment to develop port infrastructure WO-2- Increasing capacity of the port superstructure with new investment	WT-1- Contact with different investors except for Chinese to spreading risk WT-2- Turkish Aegean ports could act together to be a part of MSR

Source: Author's own elaboration

4.9. DATA ANALYSIS

In the Data collection section of the dissertation, SWOT sub-factors of the Turkish Aegean Ports and alternative strategies with the help of TOWS analysis were submitted. The last part of the study covers the Analytic Network Process analysis of the Turkish Aegean Ports to select the best strategy for selected ports. Comparison matrixes of the ANP model were rated by the expert team. The arithmetic mean of the given rating was taken to reach the compassion matrix's exact weight importance.

4.9.1. Application of the Proposed ANP Model

Semi-structured interviews of the port managers found out the Strengths and Weaknesses sub-factors of the SWOT matrix. Opportunities and Threat subfactors of

the SWOT matrix were reached with the help of a literature review and also the port manager's knowledge. Alternative strategies were developed based on the Swot-sub factors of the model. Using the SWOT Matrix, SWOT sub-factors and alternative strategies based on Turkish Aegean Ports SWOT sub-factors are developed (Table 24). Based on the SWOT sub-factors, from the perspective of the MSR and SREB, Turkish Aegean Ports has eight different alternative strategies. SO strategies were created by maximizing strength (sub-factors) to seize the opportunities (sub-factors). WO strategies were created by using the opportunity to offset the weaknesses. ST is a strategy focused on the organization's Strength sub-factors to decrease the effect of the threat options. The last strategy is the WT, which has the aim of the minimize weakness of the organization to mitigate threats. In this dissertation, the purpose of the ANP analysis is to state the priorities of the alternative strategies developed and to select the best strategy for Turkish Aegean ports.

Table 24: SWOT Matrix of the Turkish Aegean Ports

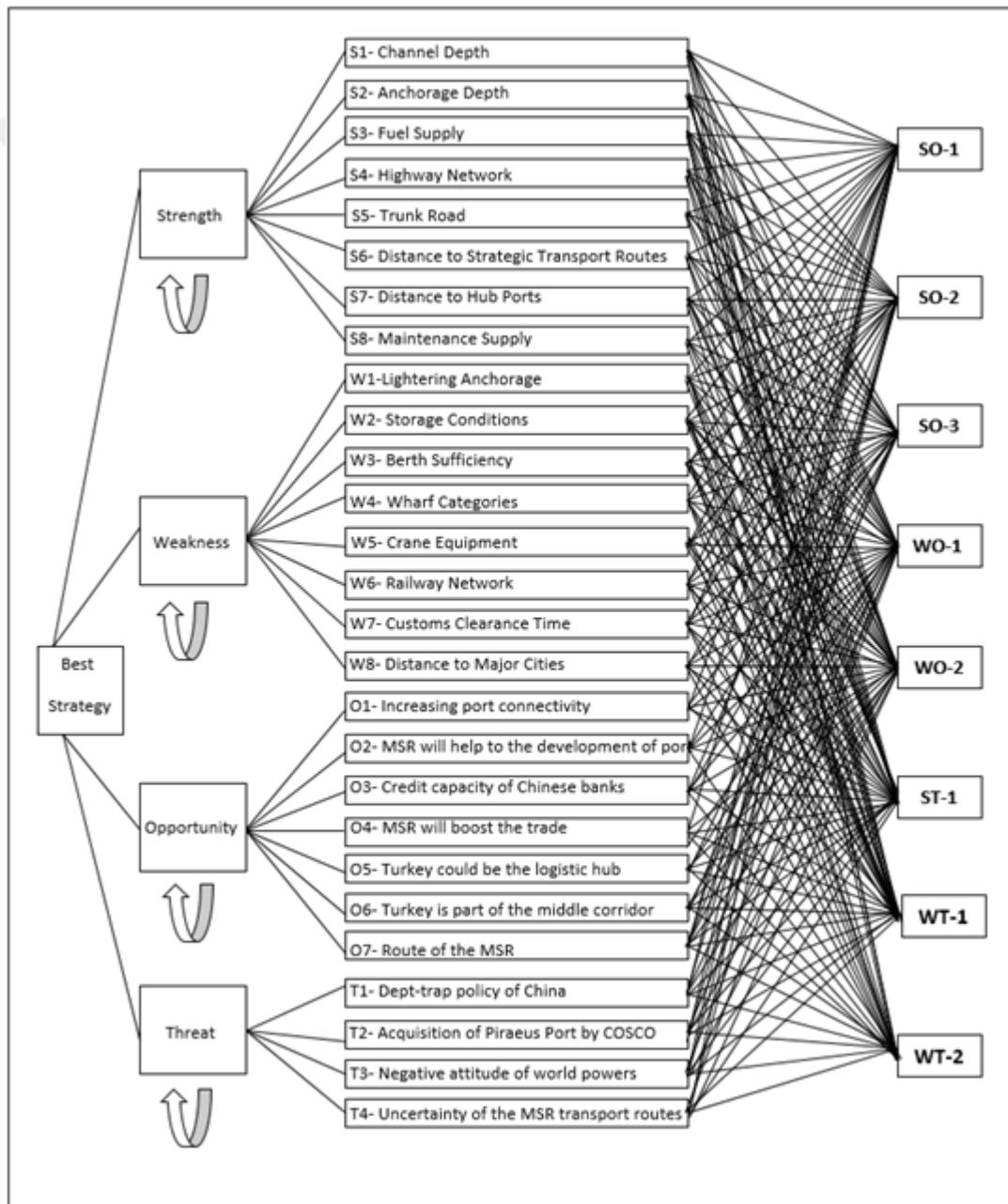
External factors	Internal factors	
	Strengths (S)	Weaknesses (W)
	S1- Channel Depth S2- Anchorage Depth S3- Fuel Supply S4- Highway Network S5- Trunk Road S6- Distance to Strategic Transport Routes S7- Distance to Hub Ports S8- Maintenance Supply	W1- Lightering Anchorage W2- Storage Conditions W3- Berth Sufficiency W4- Wharf Categories W5- Crane Equipment W6- Railway Network W7- Customs Clearance Time W8- Distance to Major Cities (City Scale)
Opportunities (O)		
O1- Increasing port connectivity O2- MSR will help to the development of ports O3- Credit capacity of Chinese banks O4- MSR will boost the trade O5- Turkey could be the logistic hub O6- Turkey is part of the middle corridor O7- Route of the MSR	SO Strategy SO-1- Trying to be the main port along to MSR route SO-2- Acquiring credit for new investments related to the port strategic position SO-3- Integration Road side of the initiative with sea part to increase trade volume	WO Strategy WO-1- Longterm port investment to develop port infrastructure WO-2- Increasing capacity of the port superstructure with new investment
Threats (T)		
T1- Dept-trap policy of China T2- Acquisition of Piraeus Port by COSCO T3- Negative attitude of world powers T4- Uncertainty of the MSR transport routes	ST Strategy ST-1- Taking advantage of the port position against its competitor	WT Strategy WT-1- Contact with different investors except for Chinese to spreading risk WT-2 Turkish Aegean ports could act together to be a part of MSR

Source: Author's own elaboration.

4.9.1.1. The Problem is Transformed the Hierarchical Structure

The first step of the ANP analysis is to demonstrate the problem in an ANP technique therefore problems were converted to a hierarchical model with alternative strategies. The SWOT sub-factors and different strategies of the SWOT matrix could be measured by the ANP method.

Figure 93: ANP Model for SWOT



Source: Author's own elaboration

In Figure 93, the schematic framework of the SWOT-ANP model was established. The aim of the model is to choose the best strategy and the first place of the structure is the ‘best strategy’. SWOT factors of the model were placed in the second row (Strengths, Weaknesses, Opportunities, Threats). The third level of the model involves eight Strength sub-factor, eight Weaknesses sub-factor, seven Opportunity sub-factor, and four Threat sub-factor. Eight alternative strategies were created for this study and are positioned at the bottom part of the model.

4.9.1.2. Pairwise Comparison of the SWOT Factors

The second step of the ANP method is the calculation of the pairwise comparison of the SWOT (Strength, Weaknesses, Opportunity, Threat) factors by assuming that there is no dependence between the SWOT factors. In the Swot factor comparison, a 1-9 scale was used. The expert team evaluate the comparison of the SWOT factors and the results were shown up in table 25. Weaknesses have the highest importance degree among the SWOT factor with 0.398 degrees if there is no dependence between SWOT factors. Strenght has a second-place among the SWOT factors with 0.413 degrees, Opportunity has a 0.216 degree in third place and Threat has the lowest important degrees among SWOT subfactors of the Turkish Aegean Ports with 0.061 degrees. No dependence among the Swot factor matrix was presented at ‘**W1**’as follows.

$$w_1 = \begin{bmatrix} S \\ W \\ O \\ T \end{bmatrix} = \begin{bmatrix} 0.398 \\ 0.413 \\ 0.126 \\ 0.061 \end{bmatrix}$$

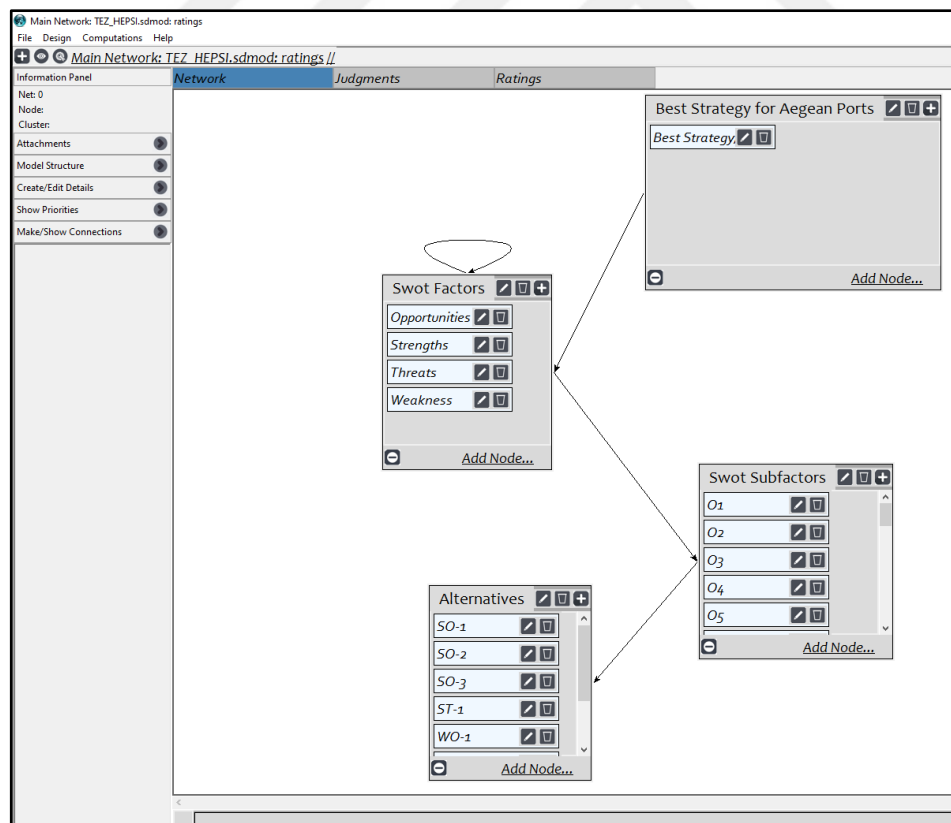
Table 25: Assuming that there is No Dependence among the SWOT factor

SWOT factors	S	W	O	T	Degree of importance
Strength (S)	1	1	4	5	0.398
Weakness (W)	1	1	4	6	0.413
Opportunity (O)	1/4	1/4	1	3	0.126
Threat (T)	1/5	1/6	1/3	1	0.061

Source: Author's own elaboration CR= 0.03

The ANP model was structured in the Super Decision program and the consistency ratio was calculated. The answers of the expert team for the comparison matrix of the Swot factors were handled at the Super Decision program (Figure 94).

Figure 94: The structure of the ANP model at the Super Decision Program

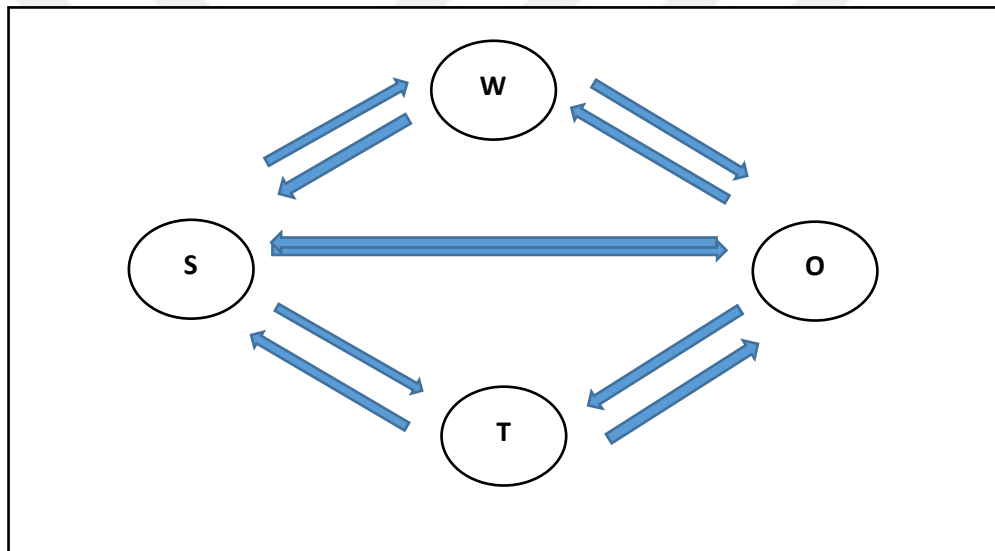


Source: Author's own Elaboration

4.9.1.3. Inner Dependence among the SWOT Factors

The third step of the ANP analysis is analyzing relative importance weight with the pairwise comparison of the SWOT factors to determine inner dependence among the Strength, Weaknesses, Opportunities, and Threats. It is always possible that there is dependence among the SWOT factors hence SWOT analysis and ANP method complete each other to find out more realistic and appropriate outcomes. Inner dependence among the SWOT factor was determined by the internal and external analysis of the Turkish Aegean ports and presented in figure 95.

Figure 95: Inner dependence among the SWOT Factors



Source: Author's own elaboration

Pairwise comparison of the Swot factors with respect to the Strength table 26 shows that Weaknesses have the highest relative importance weight with 0.658 degrees. Opportunities have a 0.262 relative importance weight and Threat has only a 0.078 relative importance weight. The consistency ratio of the inner dependence of the SWOT factors with respect Strength table is 0.03 and its acceptable ratio.

Table 26: The inner dependence of the SWOT factors with respect to ‘Strengths’

Strengths	W	O	T	Relative importance weights
Weaknesses (W)	1	3	7	0.658
Opportunities (O)	1/3	1	4	0.262
Threats (T)	1/7	1/4	1	0.078

Source: Author’s own elaboration CR=0.03

Pairwise comparison of the Swot factors with respect to the Weaknesses table 27 shows that Strength has the highest relative importance weight with 0.800 degrees. Opportunities have a 0.200 relative importance weight. The consistency ratio of the inner dependence of the SWOT factors with respect Weaknesses table is 0.0 and it's quite an acceptable ratio.

Table 27: The inner dependence of the SWOT factors with respect to ‘Weaknesses’

Weaknesses	S	O	Relative importance weights
Strengths (S)	1	4	0.800
Opportunities (O)	1/4	1	0.200

Source: Author’s own elaboration CR=0.0

A pairwise comparison of the Swot factors with respect to the Weaknesses in table 28 shows that Weaknesses have the highest relative importance weight with 0.476 degrees. Strengths have a 0.452 relative importance weight and Threat has the lowest relative importance weight with 0.071. The consistency ratio of the inner dependence of the SWOT factors with respect Opportunities table is 0.02 and its acceptable ratio.

Table 28: The inner dependence of the SWOT factors with respect to ‘Opportunities’

Opportunities	S	T	W	Relative importance weights
Strengths (S)	1	6	1	0.452
Threats (T)	1/6	1	1/7	0.071
Weaknesses (W)	1	7	1	0.476

Source: Author’s own elaboration CR=0.002

Pairwise comparison of the Swot factors with respect to the Threats table 29 shows that Strength has the highest relative importance weight with 0.800 degrees. Opportunities have a 0.200 relative importance weight. The consistency ratio of the inner dependence of the SWOT factors with respect Threat table is 0.0 and it's quite an acceptable ratio. Inner dependence of Swot factors matrix was presented at ‘W2’ as follows.

$$W_2 = \begin{bmatrix} 1.000 & 0.800 & 0.452 & 0.800 \\ 0.658 & 1.000 & 0.476 & 0.000 \\ 0.262 & 0.200 & 1.000 & 0.200 \\ 0.078 & 0.000 & 0.071 & 1.000 \end{bmatrix}$$

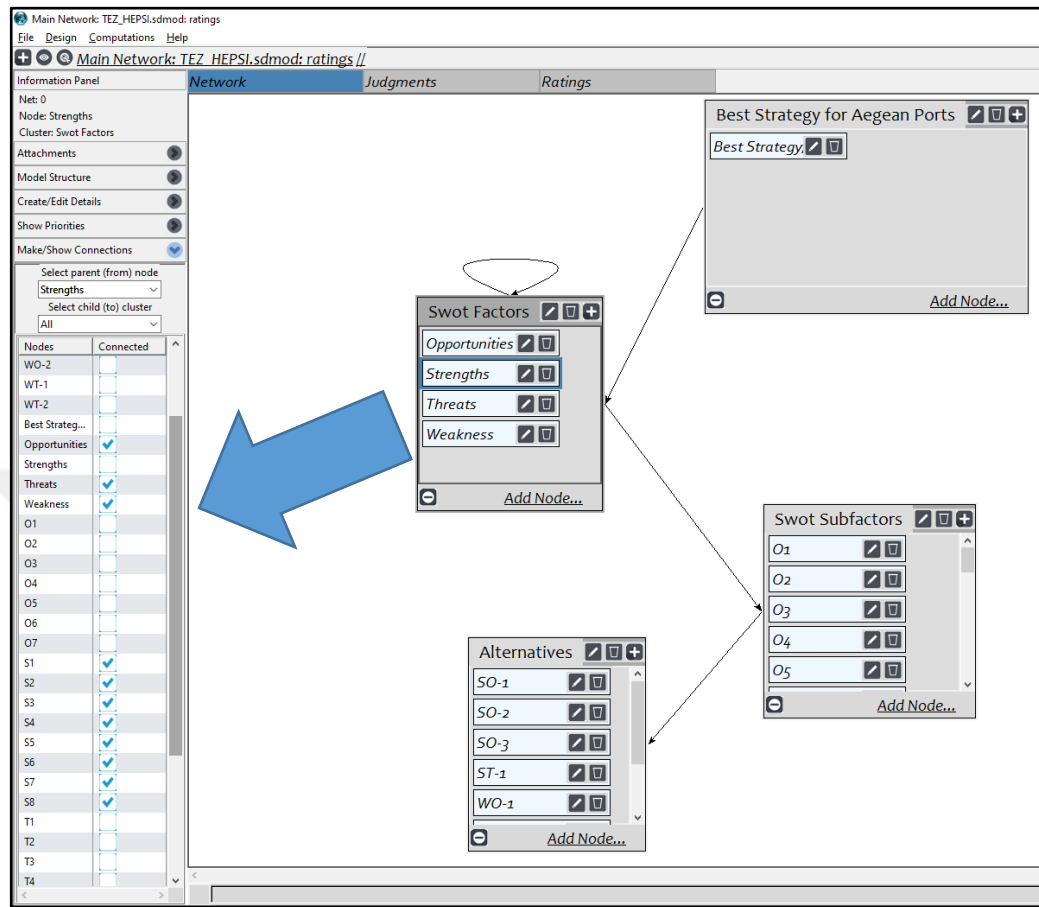
Table 29: The inner dependence of the SWOT factors with respect to ‘Threats’

Threats	O	S	Relative importance weights
Opportunities (O)	1	1/4	0.200
Strengths (S)	4	1	0.800

Source: Author’s own elaboration CR=0.0

Inner Dependence among the Swot factors was calculated at the Super Decision program. The experts determine the relative importance of weight and dependency among the Swot subfactors (Figure 96).

Figure 96: Determination of the Inner dependence among SWOT factors at Super Decision Program



Source: Author's own elaboration

4.9.1.4. Interdependent Priorities of the SWOT factors

The fourth step of the ANP analysis is the determination of the interdependent priorities of the SWOT factors. Calculations of the Multiplying Step1 w_1 and Step 3 W_2 matrixes to determine interdependent priorities of the SWOT factors are as follows.

$$\begin{pmatrix} 1 & \frac{4}{5} & \frac{113}{250} & \frac{4}{5} \\ \frac{329}{500} & 1 & \frac{119}{250} & 0 \\ \frac{131}{500} & \frac{1}{5} & 1 & \frac{1}{5} \\ \frac{39}{500} & 0 & \frac{71}{1000} & 1 \end{pmatrix} \cdot \begin{pmatrix} \frac{199}{500} \\ \frac{413}{1000} \\ \frac{63}{500} \\ \frac{61}{1000} \end{pmatrix} = \begin{pmatrix} 1 \cdot \left(\frac{199}{500}\right) + \frac{4}{5} \cdot \left(\frac{413}{1000}\right) + \frac{113}{250} \cdot \left(\frac{63}{500}\right) + \frac{4}{5} \cdot \left(\frac{61}{1000}\right) \\ \frac{329}{500} \cdot \left(\frac{199}{500}\right) + 1 \cdot \left(\frac{413}{1000}\right) + \frac{119}{250} \cdot \left(\frac{63}{500}\right) + 0 \cdot \left(\frac{61}{1000}\right) \\ \frac{131}{500} \cdot \left(\frac{199}{500}\right) + \frac{1}{5} \cdot \left(\frac{413}{1000}\right) + 1 \cdot \left(\frac{63}{500}\right) + \frac{1}{5} \cdot \left(\frac{61}{1000}\right) \\ \frac{39}{500} \cdot \left(\frac{199}{500}\right) + 0 \cdot \left(\frac{413}{1000}\right) + \frac{71}{1000} \cdot \left(\frac{63}{500}\right) + 1 \cdot \left(\frac{61}{1000}\right) \end{pmatrix} = \begin{pmatrix} \frac{104269}{125000} \\ \frac{36743}{50000} \\ \frac{81269}{250000} \\ \frac{10099}{100000} \end{pmatrix}$$

$$\mathbf{W}_{\text{factors}} = \mathbf{W}_2 \times \mathbf{w}_1 = \mathbf{W}_2 = \begin{bmatrix} 1.000 & 0.800 & 0.452 & 0.800 \\ 0.658 & 1.000 & 0.476 & 0.000 \\ 0.262 & 0.200 & 1.000 & 0.200 \\ 0.078 & 0.000 & 0.071 & 1.000 \end{bmatrix} \times \begin{bmatrix} 0.398 \\ 0.413 \\ 0.126 \\ 0.061 \end{bmatrix} = \begin{bmatrix} 0.417 \\ 0.368 \\ 0.163 \\ 0.051 \end{bmatrix}$$

The dependence of the SWOT factors ($\mathbf{W}_{\text{factors}}$) and interdependent priorities of the Strength, Weaknesses, Opportunities, and Threats factors was ignored. The result of the $\mathbf{w}_1$ changed from 0.398 to 0.417, 0.413 to 0.368, 0.126 to 0.163, and 0.061 to 0.051 for the relative importance weight of the Strength, Weaknesses, Opportunities, and Threats factors. There is a certain change between $\mathbf{w}_1$ and $\mathbf{w}_{\text{factors}}$ when the dependence and interdependence priorities of the SWOT factors were neglected.

4.9.1.5. Local Priorities of the SWOT Sub-factors

The fifth step of the ANP analysis is the determination of the local priorities of the SWOT sub-factors. Pairwise comparison matrix of the Strength, Weakness, Opportunity, and Threat used to calculate SWOT sub-factors local priorities. Pairwise comparison matrix for Strength subfactors indicates that 'Anchore Depth' and 'Distance to Hub Ports' Strength Swot sub-factor have the highest local weight among all Strength sub-factors with 0.236 degrees. 'Fuel supply' sub-factor has 0.177 local weight degree and the second place in the comparison matrices for Strength sub-factors. 'Distance to Strategic Transport Routes' local weight is 0.148, 'Highway Network' local weight is 0.079, 'Maintenance Supply' local weight is 0.052, 'Channel Depth' local weight is 0.039 and 'Trunk Road' has the lowest local weight among the Pairwise comparison matrices for 'Strengths' subfactors with 0.039 degrees. The

consistency ratio of the pairwise comparison matrices for the ‘Strengths’ subfactors is 0.05 and it's acceptable (Table 30).

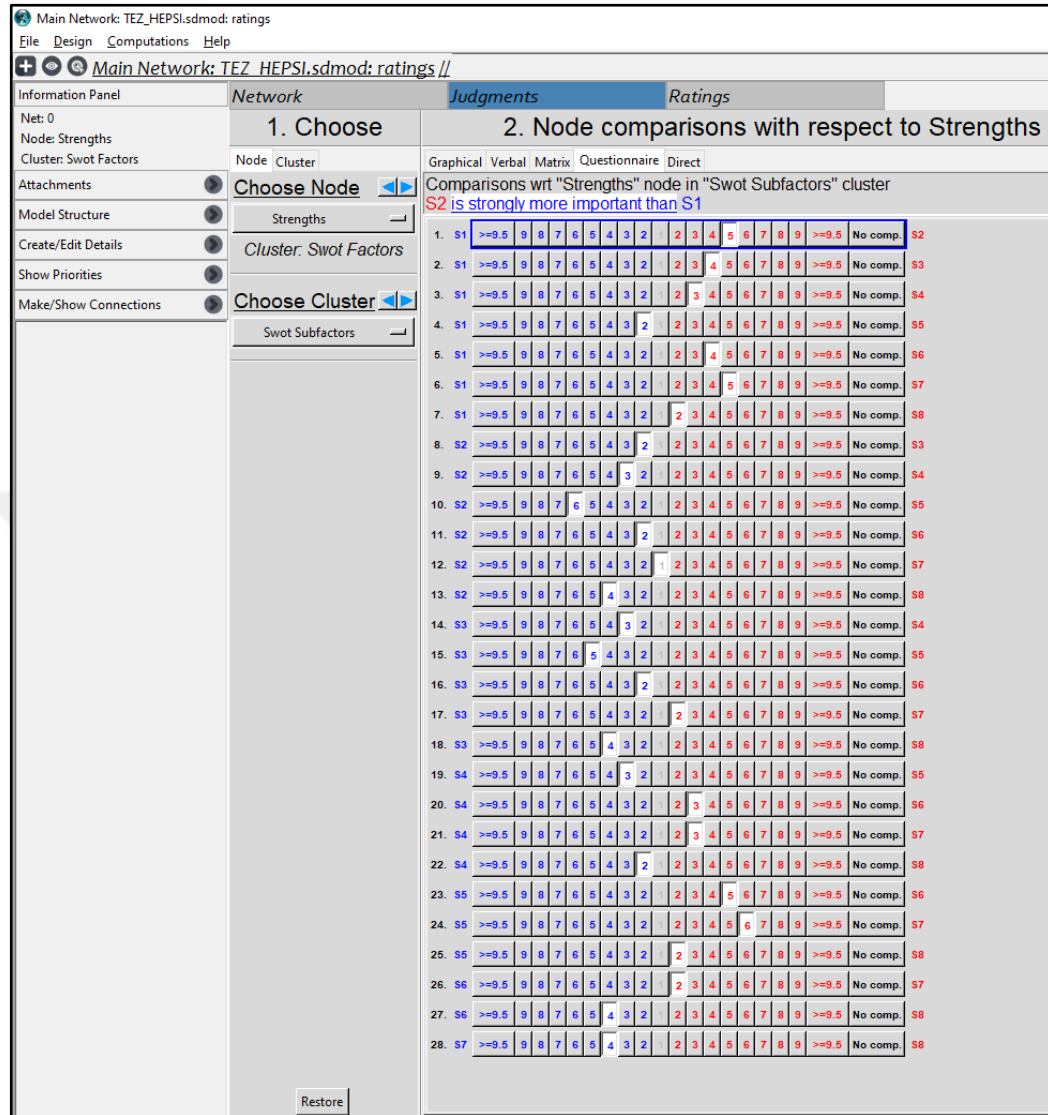
Table 30: Pairwise Comparison Matrices for ‘Strengths’ Subfactors

Strengths	S1	S2	S3	S4	S5	S6	S7	S8	Local weights
Channel Depth (S1)	1	1/5	1/4	1/3	2	1/4	1/5	1/2	0.039
Anchorage Depth (S2)	5	1	2	3	6	2	1	4	0.236
Fuel Supply (S3)	4	1/2	1	3	5	2	1/2	4	0.177
Highway Network (S4)	3	1/3	1/3	1	3	1/3	1/3	2	0.079
Trunk Road (S5)	1/2	1/6	1/5	1/3	1	1/5	1/6	1/2	0.029
Distance to Strategic Transport Routes (S6)	4	1/2	1/2	3	5	1	1/2	4	0.148
Distance to Hub Ports (S7)	5	1	2	3	6	2	1	4	0.236
Maintenance Supply (S8)	2	1/4	1/4	1/2	2	1/4	1/4	1	0.052

Source: Author’s own elaboration CR = 0.05

Figure 97 shows the consideration of the node comparison with respect to Strength. Scoring of the pairwise comparison matrices for Swot subfactors will help to reach the local weight of all Swot subfactors. The local weight of the Swot Subfactors was calculated in regard to expert knowledge with the help of the Super Decision program.

Figure 97: Node Comparison with respect to Strengths



Source: Author's own elaboration

Pairwise comparison matrix for Weakness subfactors shows that 'Berth Sufficiency' Weakness Swot sub-factor has the highest local weight among Weaknesses sub-factors with 0.434 degrees. 'Storage Conditions' sub-factor has 0.170 local weight degree and the second place in the comparison matrices for Weakness sub-factors. 'Distance to Major Cities' local weight is 0.143, 'Railway Network' local weight is 0.079, 'Lightening Anchorage' local weight is 0.075, 'Wharf Categories' local weight is 0.040, 'Crane Equipment' local weight is 0.030, and 'Customs Clearance Time' has the lowest local weights among the pairwise comparison matrices

for ‘Weakness’ subfactors with 0.024 degrees. The consistency ratio of the pairwise comparison matrices for the ‘Weakness’ subfactors is 0.05 and it's an acceptable ratio (Table 31).

Table 31: Pairwise Comparison Matrices for ‘Weakness’ Subfactors

Weakness	W1	W2	W3	W4	W5	W6	W7	W8	Local weights
Lightering Anchorage. (W1)	1	1/3	1/6	3	3	1	4	1/3	0.075
Storage Conditions. (W2)	3	1	1/5	4	5	3	5	2	0.170
Berth Sufficiency. (W3)	6	5	1	7	8	6	9	5	0.434
Wharf Categories. (W4)	1/3	1/4	1/7	1	2	1/3	2	1/4	0.040
Crane Equipment (W5)	1/3	1/5	1/8	1/2	1	1/4	2	1/5	0.030
Railway Network. (W6)	1	1/3	1/6	3	4	1	4	1/3	0.079
Customs Clearance Time(W7)	1/4	1/5	1/9	1/2	1/2	1/4	1	1/5	0.024
Distance to Major Cities. (W8)	3	1/2	1/5	4	5	3	5	1	0.143

Source: Author’s own elaboration CR = 0.05

Pairwise comparison matrix for ‘Opportunities’ subfactors shows that ‘Route of the MSR’ Weakness Swot sub-factor has the highest local weight among Weaknesses sub-factors with 0.430 degrees. ‘MSR will help to the development of ports’ sub-factor has 0.170 local weight degree and the second place in the comparison matrices for Opportunities sub-factors. ‘Increasing port connectivity’ local weight is 0.139, ‘Turkey is part of the middle corridor’ local weight is 0.097, ‘Turkey could be the logistic hub’ local weight is 0.066, ‘MSR will boost the trade’ local weight is 0.054, ‘Credit capacity of Chinese banks’ has the lowest local weights among the pairwise comparison matrices for ‘Opportunities’ subfactors with 0.042 degrees. The consistency ratio of the pairwise comparison matrices for the ‘Opportunities’ subfactors is 0.03 and it's a quite acceptable ratio (Table 32).

Table 32: Pairwise comparison matrices for ‘Opportunities’ Subfactors

Opportunities	O1	O2	O3	O4	O5	O6	O7	Local weights
Increasing port connectivity (O1)--	1	1/2	3	3	3	2	1/4	0.139
MSR will help to the development of ports (O2)--	2	1	3	3	3	2	1/4	0.170
Credit capacity of Chinese banks (O3)	1/3	1/3	1	1/2	1/2	1/3	1/6	0.042
MSR will boost the trade (O4)--	1/3	1/3	2	1	1/2	1/2	1/6	0.054
Turkey could be the logistic hub (O5)--	1/3	1/3	2	2	1	1/2	1/6	0.066
Turkey is part of the middle corridor (O6)--	1/2	1/2	3	2	2	1	1/5	0.097
Route of the MSR (O7)--	4	4	6	6	6	5	1	0.430

Source: Author’s own elaboration CR = 0.03

Pairwise comparison matrix for ‘Threats’ subfactors demonstrates that ‘Uncertainty of the MSR transport routes’ Threats Swot sub-factor has the highest local weight among Threats sub-factors with 0.600 degrees. ‘Acquisition of Piraeus Port by COSCO’ sub-factor has 0.243 local weight degree and the second place in the comparison matrices for Threats sub-factors. ‘Dept-trap policy of China’ local weight is 0.091 and ‘The negative attitude of world Powers’ has the lowest local weights among the pairwise comparison matrices for ‘Threats’ subfactors with 0.064 degrees. The consistency ratio of the pairwise comparison matrices for the ‘Threats’ subfactors is 0.06 and it's an acceptable ratio. (Table 33).

Table 33: Pairwise Comparison Matrices for ‘Threat’ Subfactors

Threats	T1	T2	T3	T4	Local weights
Dept-trap policy of China (T1)	1	1/4	2	1/6	0.091
Acquisition of Piraeus Port by COSCO (T2)	4	1	4	1/4	0.243
The negative attitude of world Powers (T3)	1/2	1/4	1	1/6	0.064
Uncertainty of the MSR transport routes (T4)	6	4	6	1	0.600

Source: Author’s own elaboration CR = 0.06

Completion of the calculation of the local priorities of the SWOT sub-factors

$W_{\text{sub-factors(strengths)}}$, $W_{\text{sub-factors(weaknesses)}}$, $W_{\text{subfactors(opportunities)}}$, $W_{\text{subfactors(threats)}}$ matrices were presented as follows.

$$\begin{aligned}
 W_{\text{sub-factors(strengths)}} &= \begin{bmatrix} 0.039 \\ 0.236 \\ 0.177 \\ 0.079 \\ 0.029 \\ 0.148 \\ 0.236 \\ 0.052 \end{bmatrix} & W_{\text{sub-factors(weaknesses)}} &= \begin{bmatrix} 0.075 \\ 0.170 \\ 0.434 \\ 0.040 \\ 0.030 \\ 0.079 \\ 0.024 \\ 0.143 \end{bmatrix} \\
 W_{\text{subfactors(opportunities)}} &= \begin{bmatrix} 0.139 \\ 0.170 \\ 0.042 \\ 0.054 \\ 0.066 \\ 0.097 \\ 0.430 \end{bmatrix} & W_{\text{subfactors(threats)}} &= \begin{bmatrix} 0.091 \\ 0.243 \\ 0.064 \\ 0.600 \end{bmatrix}
 \end{aligned}$$

4.9.1.6. Overall Priorities of the SWOT Sub-factors

The sixth step of the ANP analysis is the determination of the overall priorities of the Strength, Weaknesses, Threats, and Opportunities of subfactors. Local priorities of the SWOT subfactors that were procured by Step five of ANP analysis, were multiplied with interdependent priorities of the SWOT factors that were calculated at Step four ANP analysis to reach overall priorities of the Strenght, Weaknesses

Table 34: Overall Priority of the Sub-factors

SWOT factors	Priority of the factors	SWOT sub-factors	Priority of the sub-factors	Overall priority of the sub-factors
Strengths	0.350	Channel Depth (S1)	0.039	0,016
		Anchorage Depth (S2)	0.236	0,096
		Fuel Supply (S3)	0.177	0,072
		Highway Network (S4)	0.079	0,032
		Trunk Road (S5)	0.029	0,012
		Distance to Strategic Transport Routes (S6)	0.148	0,060
		Distance to Hub Ports (S7)	0.236	0,096
		Maintenance Supply (S8)	0.052	0,021
Weakness	0.334	Lightering Anchorage (W1)	0.075	0,027
		Storage Conditions (W2)	0.170	0,061
		Berth Sufficiency (W3)	0.434	0,155
		Wharf Categories (W4)	0.040	0,014
		Crane Equipment (W5)	0.030	0,011
		Railway Network (W6)	0.079	0,028
		Customs Clearance Time(W7)	0.024	0,008
		Distance to Major Cities (W8)	0.143	0,051
Opportunities	0.222	Increasing port connectivity (O1)	0.139	0,026
		MSR will help to the development of ports (O2)	0.170	0,032
		Credit capacity of Chinese banks (O3)	0.042	0,008
		MSR will boost the trade (O4)	0.054	0,010
		Turkey could be the logistic hub (O5)	0.066	0,012
		Turkey is part of the middle corridor (O6)	0.097	0,018
		Route of the MSR (O7)	0.430	0,080
Threats	0.089	Dept-trap policy of China (T1)	0.091	0,004
		Acquisition of Piraeus Port by COSCO (T2)	0.243	0,011
		The negative attitude of world Powers (T3)	0.064	0,002
		Uncertainty of the MSR transport routes (T4)	0.600	0,027

Opportunities, and Threats sub-factors. The calculations of the Overall priority of the sub-factors are presented in table 34.

The $W_{\text{sub-factors(global)}}$ vector was determined at the end of step sixth of ANP analysis.

$$W_{\text{sub-factors(global)}} = \begin{bmatrix} 0.016 \\ 0.096 \\ 0.072 \\ 0.032 \\ 0.012 \\ 0.060 \\ 0.096 \\ 0.021 \\ 0.027 \\ 0.061 \\ 0.155 \\ 0.014 \\ 0.011 \\ 0.028 \\ 0.008 \\ 0.051 \\ 0.026 \\ 0.032 \\ 0.008 \\ 0.010 \\ 0.012 \\ 0.018 \\ 0.080 \\ 0.004 \\ 0.011 \\ 0.002 \\ 0.027 \end{bmatrix}$$

4.9.1.7. Importance Degrees of the Strategies to each SWOT Sub-factors

The seventh step of the ANP analysis is a calculation of the importance degrees of the alternative strategies in regard to Strength, Weakness, Opportunities, and Threats sub-factors. Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the 'S1' sub-factor table indicate that SO-1 has the highest local weight among the alternative strategies with 0.396 degrees. WT2 alternative strategy has 0.149 local weight it has a second-place among the alternative strategies. SO-3 strategy has the lowest local weight with 0.046 degrees

among the eight alternative strategies with respect to the ‘S1’ subfactor. The consistency ratio of table 35 is acceptable.

Table 35: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘S1’ Sub-factor

S1	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	5	6	5	4	5	8	3	0.396
SO-2	1/5	1	3	3	3	4	2	1	0.154
SO-3	1/6	1/3	1	1	1	1/2	2	1/3	0.046
WO-1	1/5	1/3	1	1	1	1/2	1/2	1/3	0.084
WO-2	1/4	1/3	1	1	1	1/2	1/2	1/3	0.048
ST-1	1/5	1/4	2	2	2	1	2	1/2	0.050
WT-1	1/8	1/2	1/2	2	2	1/2	1	1/3	0.069
WT-2	1/3	1	3	3	3	2	3	1	0.149

Source: Author’s own elaboration CR = 0.03

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘S2’ sub-factor table indicate that WO-1 has the highest local weight among the alternative strategies with 0.239 degrees. SO1 alternative strategy has 0.180 local weights it has a second-place among the alternative strategies. and the SO-3 strategy has the lowest local weight with 0.046 degrees among the eight alternative strategies with respect to the ‘S2’ subfactor. The consistency ratio of table 366 is acceptable.

Table 36: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘S2’ Sub-factor

S2	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	3	4	2	1/2	1/2	3	2	0.180
SO-2	1/3	1	3	3	1	1	3	3	0.162
SO-3	1/4	1/3	1	1	1/3	1/4	1/2	1/2	0.046
WO-1	1/2	1/3	1	1	1/3	1/4	1	1/2	0.239
WO-2	2	1	3	3	1	1/2	3	2	0.055
ST-1	2	1	4	4	2	1	4	3	0.175
WT-1	1/3	1/3	2	1	1/3	1/4	1	1	0.062
WT-2	1/2	1/3	2	2	1/2	1/3	1	1	0.078

Source: Author’s own elaboration CR = 0.03

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘S3’ sub-factor table indicate that ST-1 has the highest local weight among the alternative strategies with 0.386 degrees. SO-1 alternative strategy has 0.163 local weight it has a second-place among the alternative strategies. SO-3 strategy has the lowest local weight with 0.042 degrees among the eight alternative strategies with respect to the ‘S3’ subfactor. The consistency ratio of table 37 is acceptable.

Table 37: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘S3’ Sub-factor

S3	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	5	6	1/2	1/5	4	2	2	0.163
SO-2	1/5	1	2	1/2	1/5	2	1/2	1/2	0.058
SO-3	1/6	1/2	1	1/2	1/6	1	1/2	1/2	0.042
WO-1	2	2	2	1	1/4	2	1	2	0.045
WO-2	5	5	6	4	1	5	4	5	0.130
ST-1	1/4	1/2	1	1/2	1/5	1	1/2	1/2	0.386
WT-1	1/2	2	2	1	1/4	2	1	1	0.091
WT-2	1/2	2	2	1/2	1/5	2	1	1	0.081

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘S4’ sub-factor table indicate that SO-3 has the highest local weight among the alternative strategies with 0.390 degrees. WO-2 alternative strategy has 0.222 local weight it has a second-place among the alternative strategies. SO-1 and SO-3 strategies have the lowest local weight with 0.053 degrees among the eight alternative strategies with respect to the ‘S4’ subfactor. The consistency ratio of table 38 is acceptable.

Table 38: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘S4’ Sub-factor

S4	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	2	1/7	1/6	1/2	2	1/2	1/2	0.053
SO-2	1/2	1	1/5	1/5	1/2	2	2	1/3	0.053
SO-3	7	5	1	3	5	7	8	5	0.390
WO-1	6	5	1/3	1	3	5	6	2	0.042
WO-2	2	2	1/5	1/3	1	2	3	1	0.222
ST-1	1/2	1/2	1/7	1/5	1/2	1	2	1/3	0.090
WT-1	2	1/2	1/8	1/6	1/3	1/2	1	1/3	0.041
WT-2	2	3	1/5	1/2	1	3	3	1	0.106

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘S5’ sub-factor table indicate that SO-3 has the highest local weight among the alternative strategies with 0.343 degrees. WO-2 alternative strategy has 0.282 local weight it has a second-place among the alternative strategies. ST1 strategy has the lowest local weight with 0.051 degrees among the eight alternative strategies with respect to the ‘S5’ subfactor. The consistency ratio of table 39 is acceptable.

Table 39: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘S5’ Sub-factor

S5	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	2	1/5	1/5	2	3	2	1/2	0.081
SO-2	1/2	1	1/5	1/5	2	2	3	1/2	0.067
SO-3	5	5	1	2	6	5	6	5	0.343
WO-1	5	5	1/2	1	6	7	8	3	0.038
WO-2	1/2	1/2	1/6	1/6	1	2	2	1/2	0.282
ST-1	1/3	1/2	1/5	1/7	1/2	1	1	1/2	0.051
WT-1	1/2	1/3	1/6	1/8	1/2	1	1	1/3	0.034
WT-2	2	2	1/5	1/3	2	2	3	1	0.101

Source: Author’s own elaboration CR = 0.03

Table 40: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘S6’ Sub-factor

S6	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1/3	2	2	2	1/2	3	3	0.142
SO-2	3	1	3	3	3	1	4	4	0.256
SO-3	1/2	1/3	1	2	2	1/3	3	3	0.115
WO-1	1/2	1/3	1/2	1	2	1/3	2	2	0.233
WO-2	1/2	1/3	1/2	1/2	1	1/3	2	2	0.086
ST-1	2	1	3	3	3	1	4	3	0.072
WT-1	1/3	1/4	1/3	1/2	1/2	1/4	1	1	0.046
WT-2	1/3	1/4	1/3	1/2	1/2	1/3	1/3	1	0.048

Source: Author’s own elaboration CR = 0.02

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘S6’ sub-factor table indicate that SO-2 has the highest local weight among the alternative strategies with 0.256 degrees. WO-1 alternative strategy has 0.233 local weight it has a second-place among the alternative strategies. ST-1 strategy has the lowest local weight with 0.072 degrees among the eight alternative strategies with respect to the ‘S6’ subfactor. The consistency ratio of table 40 is acceptable.

Table 41: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘S7’ Sub-factor

S7	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	4	7	5	5	4	8	7	0.407
SO-2	1/4	1	3	3	4	1	5	3	0.167
SO-3	1/7	1/3	1	1/2	1/2	1/3	2	1/2	0.045
WO-1	1/5	1/3	2	1	2	1/2	2	2	0.142
WO-2	1/5	1/4	2	1/2	1	1/3	2	1	0.083
ST-1	1/4	1	3	2	3	1	3	3	0.059
WT-1	1/8	1/5	1/2	1/2	1/2	1/3	1	1/2	0.035
WT-2	1/7	1/3	2	1/2	1	1/3	2	1	0.058

Source: Author’s own elaboration CR = 0.02

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘S7’ sub-factor table indicate that SO-1 has the highest local weight among the alternative strategies with 0.407 degrees. SO-2 alternative strategy has 0.167 local weight it has a second-place among the alternative strategies. WT-1 strategy has the lowest local weight with 0.035 degrees among the eight alternative strategies with respect to the ‘S7’ subfactor. The consistency ratio of table 41 is acceptable.

Table 42: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘S8’ Sub-factor

S8	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1/2	2	1/2	1/5	2	2	1/2	0.080
SO-2	2	1	2	1/2	1/5	2	2	1/2	0.095
SO-3	1/2	1/2	1	1/2	1/6	1/2	1/2	1/2	0.046
WO-1	2	2	2	1	1/4	2	2	1/2	0.067
WO-2	5	5	6	4	1	5	6	5	0.116
ST-1	1/2	1/2	2	1/2	1/5	1	2	1/2	0.402
WT-1	1/2	1/2	2	1/2	1/6	1/2	1	1/2	0.055
WT-2	2	2	2	2	1/5	2	2	1	0.135

Source: Author’s own elaboration CR = 0.03

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘S8’ sub-factor table indicate that ST-1 has the highest local weight among the alternative strategies with 0.402 degrees. WT-2 alternative strategy has 0.135 local weight it has a second-place among the alternative strategies. SO-3 strategy has the lowest local weight with 0.046 degrees among the eight alternative strategies with respect to the ‘S8’ subfactor. The consistency ratio of table 42 is acceptable.

Table 43: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘W1’ Sub-factor

W1	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	2	5	1/2	1/2	4	6	4	0.228
SO-2	1/2	1	3	1/2	1/2	2	2	2	0.121
SO-3	1/5	1/3	1	1/2	1/2	1	1	1	0.064
WO-1	2	2	2	1	1	2	2	2	0.068
WO-2	2	2	2	1	1	2	2	2	0.191
ST-1	1/4	1/2	1	1/2	1/2	1	1	1	0.191
WT-1	1/6	1/2	1	1/2	1/2	1	1	1	0.066
WT-2	1/4	1/2	1	1/2	1/2	1	1	1	0.068

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘W1’ sub-factor table indicate that SO-1 has the highest local weight among the alternative strategies with 0.228 degrees. WO-2 and ST-1 alternative strategies have 0.191 local weight and they have a second-place among the alternative strategies. SO-3 strategy has the lowest local weight with 0.064 degrees among the eight alternative strategies with respect to the ‘W1’ subfactor. The consistency ratio of table 43 is acceptable.

Table 44: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘W2’ Sub-factor

W2	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1/2	2	2	1/6	2	2	2	0.109
SO-2	2	1	2	1/2	1/7	2	1/2	1/2	0.080
SO-3	1/2	1/2	1	1/2	1/8	1	1	1/2	0.047
WO-1	1/2	2	2	1	1/5	2	2	1	0.047
WO-2	6	7	8	5	1	8	8	5	0.096
ST-1	1/2	1/2	1	1/2	1/8	1	1	1/2	0.460
WT-1	1/2	2	1	1/2	1/8	1	1	1/2	0.062
WT-2	1/2	2	2	1	1/5	2	2	1	0.096

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘W2’ sub-factor table indicate that ST-1 has the highest local weight among the alternative strategies with 0.460 degrees. SO-1 alternative strategy has 0.109 local weight it has a second-place among the alternative strategies. SO-3 and WO-1 strategies have the lowest local weight with 0.047 degrees among the eight alternative strategies with respect to the ‘W2’ subfactor. The consistency ratio of table 44 is acceptable.

Table 45: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘W3’ Sub-factor

W3	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1/3	3	2	1/5	2	2	2	0.108
SO-2	3	1	2	1/2	1/6	1	2	2	0.110
SO-3	1/3	1/2	1	1/2	1/8	1	1	1	0.048
WO-1	1/2	2	2	1	1/5	2	2	2	0.053
WO-2	5	6	8	5	1	8	9	8	0.105
ST-1	1/2	1	1	1/2	1/8	1	1	1/2	0.463
WT-1	1/2	1/2	1	1/2	1/9	1	1	1/2	0.046
WT-2	1/2	1/2	1	1/2	1/8	2	2	1	0.062

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘W3’ sub-factor table indicate that ST-1 has the highest local weight among the alternative strategies with 0.463 degrees. SO-2 alternative strategy has 0.110 local weight and it has a second-place among the alternative strategies. WT-1 strategy has the lowest local weight with 0.046 degrees among the eight alternative strategies with respect to the ‘W3’ subfactor. The consistency ratio of table 45 is acceptable.

Table 46: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘W4’ Sub-factor.

W4	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1/2	2	1/6	1/3	2	2	2	0.080
SO-2	2	1	2	1/5	2	2	2	2	0.126
SO-3	1/2	1/2	1	1/9	1/3	1	1	1	0.048
WO-1	6	5	9	1	4	9	8	8	0.044
WO-2	3	1/2	3	1/4	1	3	3	2	0.460
ST-1	1/2	1/2	1	1/9	1/3	1	1	1/2	0.132
WT-1	1/2	1/2	1	1/8	1/3	1	1	1/2	0.045
WT-2	1/2	1/2	1	1/8	1/2	2	2	1	0.062

Source: Author’s own elaboration CR = 0.02

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘W4’ sub-factor table indicate that WO-2 has the highest local weight among the alternative strategies with 0.460 degrees. ST-1 alternative strategy has 0.132 local weight and it has a second-place among the alternative strategies. WO-1 strategy has the lowest local weight with 0.044 degrees among the eight alternative strategies with respect to the ‘W4’ subfactor. The consistency ratio of table 46 is acceptable.

Table 47: Pairwise Comparison Matrices of ANP analysis for the Priorities of the Different Alternative Strategies based on the ‘W5’ Sub-factor

W5	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	2	3	2	1/4	4	2	2	0.155
SO-2	1/2	1	2	1/2	1/5	2	2	2	0.093
SO-3	1/3	1/2	1	1/2	1/6	1	1	1/2	0.050
WO-1	1/2	2	2	1	1/5	2	2	2	0.048
WO-2	4	5	6	5	1	6	6	5	0.111
ST-1	1/4	1/2	1	1/2	1/6	1	1	1/2	0.408
WT-1	1/2	1/2	1	1/2	1/6	1	1	1/2	0.053
WT-2	1/2	1/2	2	1/2	1/5	2	2	1	0.078

Source: Author’s own elaboration CR = 0.02

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘W5’ sub-factor table indicate that ST-1 has the highest local weight among the alternative strategies with 0.408 degrees. SO-1 alternative strategy has 0.155 local weight and it has a second-place among the alternative strategies. WO-1 strategy has the lowest local weight with 0.048 degrees among the eight alternative strategies with respect to the ‘W5’ subfactor. The consistency ratio of table 47 is acceptable.

Table 48: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘W6’ Sub-factor.

W6	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	2	1/4	1/4	2	2	2	2	0.103
SO-2	1/2	1	1/3	1/3	2	1/2	2	2	0.081
SO-3	4	3	1	1/2	5	3	5	5	0.248
WO-1	4	3	2	1	5	5	8	6	0.066
WO-2	1/2	1/2	1/5	1/5	1	2	2	2	0.334
ST-1	1/2	2	1/3	1/5	1/2	1	1	1	0.071
WT-1	1/2	1/2	1/5	1/8	1/2	1	1	1/2	0.041
WT-2	1/2	1/2	1/5	1/6	1/2	1	2	1	0.051

Source: Author’s own elaboration CR = 0.02

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘W6’ sub-factor table indicate that WO-2 has the highest local weight among the alternative strategies with 0.334 degrees. SO-3 alternative strategy has 0.248 local weight and it has a second-place among the alternative strategies. WT-1 strategy has the lowest local weight with 0.041 degrees among the eight alternative strategies with respect to the ‘W6’ subfactor. The consistency ratio of table 48 is acceptable.

Table 49: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘W7’ Sub-factor

W7	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	3	3	3	3	4	3	1/3	0.231
SO-2	1/3	1	1/2	1	1/2	2	2	1/2	0.086
SO-3	1/3	2	1	2	1/2	2	2	1/2	0.111
WO-1	1/3	1	1/2	1	1/2	1	1	1/2	0.063
WO-2	1/3	2	2	2	1	2	2	1/2	0.071
ST-1	1/4	1/2	1	1	1/2	1	1	1/2	0.132
WT-1	1/3	1/2	1	1	1/2	1	1	1/3	0.061
WT-2	3	2	2	2	2	2	3	1	0.242

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘W7’ sub-factor table indicate that WT-2 has the highest local weight among the alternative strategies with 0.242 degrees. SO-1 alternative strategy has 0.231 local weight and it has a second-place among the alternative strategies. WT-1 strategy has the lowest local weight with 0.061 degrees among the eight alternative strategies with respect to the ‘W7’ subfactor. The consistency ratio of table 49 is acceptable.

Table 50: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘W8’ Sub-factor

W8	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	2	1/3	1/2	2	2	2	2	0.129
SO-2	1/2	1	1/3	1/2	1	1	2	2	0.091
SO-3	3	3	1	1/2	4	4	4	5	0.267
WO-1	2	2	2	1	2	2	3	4	0.074
WO-2	1/2	1	1/4	1/2	1	1	2	2	0.234
ST-1	1/2	1	1/4	1/2	1	1	1	1	0.088
WT-1	1/2	1/2	1/4	1/3	1/2	1	1	1	0.059
WT-2	1/2	1/2	1/5	1/4	1/2	1	1	1	0.055

Source: Author’s own elaboration CR = 0.02

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘W8’ sub-factor table indicate that SO-3 has the highest local weight among the alternative strategies with 0.267 degrees. WO-2 alternative strategy has 0.234 local weight and it has a second-place among the alternative strategies. WT-2 strategy has the lowest local weight with 0.055 degrees among the eight alternative strategies with respect to the ‘W8’ subfactor. The consistency ratio of table 50 is acceptable.

Table 51: Pairwise Comparison Matrices of ANP analysis for the Priorities of the Different Alternative Strategies based on the ‘O1’ Sub-factor

O1	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	5	8	7	7	5	9	6	0.443
SO-2	1/5	1	5	3	4	1/2	5	1/2	0.119
SO-3	1/8	1/5	1	1/2	1/2	1/5	2	1/3	0.034
WO-1	1/7	1/3	2	1	2	1/4	3	1/2	0.160
WO-2	1/7	1/4	2	1/2	1	1/3	2	1/2	0.059
ST-1	1/5	2	5	4	3	1	4	2	0.047
WT-1	1/9	1/5	1/2	1/3	1/2	1/4	1	1/4	0.026
WT-2	1/6	2	3	2	2	1/2	4	1	0.109

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘O1’ sub-factor table indicate that SO-1 has the highest local weight among the alternative strategies with 0.443 degrees. WO-1 alternative strategy has 0.160 local weight and it has a second-place among the alternative strategies. WT-1 strategy has the lowest local weight with 0.026 degrees among the eight alternative strategies with respect to the ‘O1’ subfactor. The consistency ratio of table 51 is acceptable.

Table 52: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘O2’ Sub-factor

O2	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1/5	2	1/7	1/6	2	1/3	2	0.049
SO-2	5	1	5	1/3	1/2	5	3	5	0.166
SO-3	1/2	1/5	1	1/7	1/5	2	2	2	0.053
WO-1	7	3	7	1	3	9	7	7	0.029
WO-2	6	2	5	1/3	1	8	4	7	0.377
ST-1	1/2	1/5	1/2	1/9	1/8	1	1/2	1	0.230
WT-1	3	1/3	1/2	1/7	1/4	2	1	2	0.061
WT-2	1/2	1/5	1/2	1/7	1/7	1	2	1	0.030

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘O2’ sub-factor table indicate that WO-2 has the highest local weight among the alternative strategies with 0.377 degrees. ST-1 alternative strategy has 0.230 local weight and it has a second-place among the alternative strategies. WT-2 strategy has the lowest local weight with 0.030 degrees among the eight alternative strategies with respect to the ‘O2’ subfactor. The consistency ratio of table 52 is acceptable.

Table 53: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘O3’ Sub-factor

O3	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1/5	2	1/3	1/3	2	1/5	3	0.059
SO-2	5	1	7	5	6	6	2	8	0.371
SO-3	1/2	1/7	1	1/3	1/2	2	1/5	2	0.046
WO-1	3	1/5	3	1	2	3	1/2	5	0.037
WO-2	3	1/6	2	1/2	1	3	1/3	4	0.127
ST-1	1/2	1/6	1/2	1/3	1/3	1	1/7	2	0.094
WT-1	5	1/2	5	2	3	7	1	9	0.237
WT-2	1/3	1/8	1/2	1/5	1/4	1/2	1/9	1	0.025

Source: Author’s own elaboration CR = 0.03

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘O3’ sub-factor table indicate that SO-2 has the highest local weight among the alternative strategies with 0.371 degrees. WT-1 alternative strategy has 0.237 local weight and it has a second-place among the alternative strategies. WT-2 strategy has the lowest local weight with 0.025 degrees among the eight alternative strategies with respect to the ‘O3’ subfactor. The consistency ratio of table 53 is acceptable.

Table 54: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘O4’ Sub-factor.

O4	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	3	4	3	3	3	5	4	0.309
SO-2	1/3	1	2	1/2	2	2	3	2	0.131
SO-3	1/4	1/2	1	1/2	1/2	1/2	3	2	0.076
WO-1	1/3	2	2	1	3	2	5	4	0.089
WO-2	1/3	1/2	2	1/3	1	2	3	2	0.193
ST-1	1/3	1/2	2	1/2	1/2	1	2	2	0.107
WT-1	1/5	1/3	1/3	1/5	1/3	1/2	1	1/2	0.037
WT-2	1/4	1/2	1/2	1/4	1/2	1/2	2	1	0.054

Source: Author’s own elaboration CR = 0.03

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘O4’ sub-factor table indicate that SO-1 has the highest local weight among the alternative strategies with 0.309 degrees. WO-2 alternative strategy has 0.193 local weight and it has a second-place among the alternative strategies. WT-1 strategy has the lowest local weight with 0.025 degrees among the eight alternative strategies with respect to the ‘O4’ subfactor. The consistency ratio of table 54 is acceptable.

Table 55: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘O5’ Sub-factor

O5	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1/3	1/7	2	2	1	2	1/2	0.074
SO-2	3	1	1/5	2	2	2	2	1/3	0.110
SO-3	7	5	1	5	6	5	9	4	0.417
WO-1	1/2	1/2	1/5	1	2	1/2	2	1/3	0.079
WO-2	1/2	1/2	1/6	1/2	1	1/2	2	1/4	0.059
ST-1	1	1/2	1/5	2	2	1	2	1/2	0.047
WT-1	1/2	1/2	1/9	1/2	1/2	1/2	1	1/5	0.036
WT-2	2	3	1/4	3	4	2	5	1	0.175

Source: Author’s own elaboration CR = 0.03

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘O5’ sub-factor table indicate that SO-3 has the highest local weight among the alternative strategies with 0.417 degrees. WT-2 alternative strategy has 0.175 local weight and it has a second-place among the alternative strategies. WT-1 strategy has the lowest local weight with 0.036 degrees among the eight alternative strategies with respect to the ‘O5’ subfactor. The consistency ratio of table 55 is acceptable.

Table 56: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘O6’ Sub-factor

O6	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1/2	1/6	2	2	2	3	1/3	0.083
SO-2	2	1	1/5	2	2	2	3	1/4	0.094
SO-3	6	5	1	6	8	5	7	4	0.413
WO-1	1/2	1/2	1/6	1	2	1/2	2	1/4	0.067
WO-2	1/2	1/2	1/8	1/2	1	1/2	2	1/5	0.053
ST-1	1/2	1/2	1/5	2	2	1	2	1/3	0.042
WT-1	1/3	1/3	1/7	1/2	1/2	1/2	1	1/6	0.033
WT-2	3	4	1/4	4	5	3	6	1	0.211

Source: Author’s own elaboration CR = 0.03

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘O6’ sub-factor table indicate that SO-3 has the highest local weight among the alternative strategies with 0.413 degrees. WT-2 alternative strategy has 0.211 local weight and it has a second-place among the alternative strategies. WT-1 strategy has the lowest local weight with 0.033 degrees among the eight alternative strategies with respect to the ‘O6’ subfactor. The consistency ratio of table 56 is acceptable.

Table 57: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘O7’ Sub-factor

O7	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	8	9	6	7	8	9	7	0.509
SO-2	1/8	1	4	3	4	1	5	3	0.140
SO-3	1/9	1/4	1	1/2	1	1/3	1	1/2	0.036
WO-1	1/6	1/3	2	1	2	1/2	2	1/2	0.108
WO-2	1/7	1/4	1	1/2	1	1/3	2	1/2	0.060
ST-1	1/8	1	3	2	3	1	3	2	0.042
WT-1	1/9	1/5	1	1/2	1/2	1/3	1	1/2	0.032
WT-2	1/7	1/3	2	2	2	1/2	2	1	0.069

Source: Author’s own elaboration CR = 0.03

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘O7’ sub-factor table indicate that SO-1 has the highest local weight among the alternative strategies with 0.509 degrees. SO-2 alternative strategy has 0.140 local weight and it has a second-place among the alternative strategies. WT-1 strategy has the lowest local weight with 0.032 degrees among the eight alternative strategies with respect to the ‘O7’ subfactor. The consistency ratio of table 57 is acceptable.

Table 58: Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘T1’ sub-factor

T1	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1/7	2	1/2	1/2	2	1/6	1/2	0.043
SO-2	7	1	8	6	7	7	1/5	5	0.259
SO-3	1/2	1/8	1	1/2	1/2	1	1/9	1/2	0.030
WO-1	2	1/6	2	1	2	2	1/6	2	0.030
WO-2	2	1/7	2	1/2	1	2	1/8	1	0.072
ST-1	1/2	1/7	1	1/2	1/2	1	1/9	1/2	0.052
WT-1	6	5	9	6	8	9	1	8	0.456
WT-2	2	1/5	2	1/2	1	2	1/8	1	0.054

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘T1’ sub-factor table indicate that WT-1 has the highest local weight among the alternative strategies with 0.456 degrees. SO-2 alternative strategy has 0.259 local weight and it has a second-place among the alternative strategies. SO-3 and WO-1 strategies have the lowest local weight with 0.030 degrees among the eight alternative strategies with respect to the ‘T1’ subfactor. The consistency ratio of table 58 is acceptable.

Table 59: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘T2’ Sub-factor

T2	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	1	5	3	3	1/7	4	3	0.168
SO-2	1	1	2	2	2	1/2	2	2	0.131
SO-3	1/5	1/2	1	1/2	1/2	1/5	1/2	1/2	0.041
WO-1	1/3	1/2	2	1	2	1/4	2	2	0.387
WO-2	1/3	1/2	2	1/2	1	1/5	1	1	0.088
ST-1	7	2	5	4	5	1	6	4	0.060
WT-1	1/4	1/2	2	1/2	1	1/6	1	1/2	0.052
WT-2	1/3	1/2	2	1/2	1	1/4	2	1	0.068

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘T2’ sub-factor table indicate that WO-1 has the highest local weight among the alternative strategies with 0.387 degrees. SO-1 alternative strategy has 0.168 local weight and it has a second-place among the alternative strategies. SO-3 strategy has the lowest local weight with 0.041 degrees among the eight alternative strategies with respect to the ‘T2’ subfactor. The consistency ratio of table 59 is acceptable.

Table 60: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘T3’ Sub-factor

T3	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	2	2	2	2	2	1/2	1/2	0.157
SO-2	1/2	1	3	2	4	3	1	2	0.195
SO-3	1/2	1/3	1	1/2	1/2	1/2	1/2	1/2	0.058
WO-1	1/2	1/2	2	1	2	2	1/2	1/2	0.074
WO-2	1/2	1/4	2	1/2	1	1	1/2	1/2	0.101
ST-1	1/2	1/3	2	1/2	1	1	1/2	1/2	0.072
WT-1	2	1	2	2	2	2	1	2	0.190
WT-2	2	1/2	2	2	2	2	1/2	1	0.150

Source: Author’s own elaboration CR = 0.04

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘T3’ sub-factor table indicate that SO-2 has the highest local weight among the alternative strategies with 0.195 degrees. WT-1 alternative strategy has 0.190 local weight and it has a second-place among the alternative strategies. SO-3 strategy has the lowest local weight with 0.058 degrees among the eight alternative strategies with respect to the ‘T3’ subfactor. The consistency ratio of table 60 is acceptable.

Table 61: Pairwise Comparison Matrices of ANP Analysis for the Priorities of the Different Alternative Strategies based on the ‘T4’ Sub-factor

T4	SO-1	SO-2	SO-3	WO-1	WO-2	ST-1	WT-1	WT-2	Local Weights
SO-1	1	7	6	6	7	5	8	7	0.463
SO-2	1/7	1	3	2	2	1	3	3	0.127
SO-3	1/6	1/3	1	2	2	1/2	2	2	0.082
WO-1	1/6	1/2	1/2	1	2	2	1/2	1/2	0.071
WO-2	1/7	1/2	1/2	1/2	1	1/2	2	2	0.058
ST-1	1/5	1	2	1/2	2	1	2	2	0.110
WT-1	1/8	1/3	1/2	2	1/2	1/2	1	1/2	0.038
WT-2	1/7	1/3	1/2	2	1/2	1/2	2	1	0.047

Source: Author’s own elaboration CR = 0.03

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘T4’ sub-factor table indicate that SO-1 has the highest local weight among the alternative strategies with 0.463 degrees. SO-2 alternative strategy has 0.190 local weight and it has a second-place among the alternative strategies. WT-1 strategy has the lowest local weight with 0.038 degrees among the eight alternative strategies with respect to the ‘T4’ subfactor. The consistency ratio of table 61 is acceptable.

The eigenvectors were determined by analyzing the above matrices and the W4 matrix. Super Decision program was preferred use analyze the seventh step of ANP analysis to find out the W4 matrix.

$$W_4 = \begin{bmatrix} 0.396 & 0.180 & 0.163 & 0.053 & 0.081 & 0.142 & 0.407 & 0.080 & 0.228 \\ 0.154 & 0.162 & 0.058 & 0.053 & 0.067 & 0.256 & 0.167 & 0.095 & 0.121 \\ 0.046 & 0.046 & 0.042 & 0.390 & 0.343 & 0.115 & 0.045 & 0.046 & 0.064 \\ 0.084 & 0.239 & 0.045 & 0.042 & 0.038 & 0.233 & 0.142 & 0.067 & 0.068 \\ 0.048 & 0.055 & 0.130 & 0.222 & 0.282 & 0.086 & 0.083 & 0.116 & 0.191 \\ 0.050 & 0.175 & 0.386 & 0.090 & 0.051 & 0.072 & 0.059 & 0.402 & 0.191 \\ 0.069 & 0.062 & 0.091 & 0.041 & 0.034 & 0.046 & 0.035 & 0.055 & 0.066 \\ 0.149 & 0.078 & 0.081 & 0.106 & 0.101 & 0.048 & 0.058 & 0.135 & 0.068 \end{bmatrix}$$

0.109	0.108	0.080	0.155	0.103	0.231	0.129	0.443	0.049
0.080	0.110	0.126	0.093	0.081	0.086	0.091	0.119	0.166
0.047	0.048	0.048	0.050	0.248	0.111	0.267	0.034	0.053
0.047	0.053	0.044	0.048	0.066	0.063	0.074	0.160	0.029
0.096	0.105	0.460	0.111	0.334	0.071	0.234	0.059	0.377
0.460	0.463	0.132	0.408	0.071	0.132	0.088	0.047	0.230
0.062	0.046	0.045	0.053	0.041	0.061	0.059	0.268	0.061
0.096	0.062	0.062	0.078	0.051	0.242	0.055	0.109	0.030
0.059	0.309	0.074	0.083	0.509	0.043	0.168	0.157	0.049
0.371	0.131	0.110	0.094	0.140	0.259	0.131	0.195	0.166
0.046	0.076	0.417	0.413	0.036	0.030	0.041	0.058	0.053
0.037	0.089	0.079	0.067	0.108	0.030	0.387	0.074	0.029
0.127	0.193	0.059	0.053	0.060	0.072	0.088	0.101	0.377
0.094	0.107	0.047	0.042	0.042	0.052	0.060	0.072	0.230
0.237	0.037	0.036	0.033	0.032	0.456	0.052	0.190	0.061
0.025	0.054	0.175	0.211	0.069	0.054	0.068	0.150	0.030

4.9.1.8. Overall Priorities of the Alternative Strategies

The last step of the ANP analysis is selecting the best strategy among the alternatives. The overall priorities of the eight alternative strategies in the ANP model, reflecting the interrelationship within the Strength, Weakness, Opportunities, and Threats factors, are demonstrated as follows.

$$W_{\text{alternatives}} = \begin{bmatrix} SO1 \\ SO2 \\ SO3 \\ WO1 \\ WO2 \\ ST1 \\ WT1 \\ WT2 \end{bmatrix} = W_4 \times W_{\text{sub-factors (global)}} = \begin{bmatrix} 0.208 \\ 0.128 \\ 0.095 \\ 0.126 \\ 0.205 \\ 0.104 \\ 0.054 \\ 0.076 \end{bmatrix}$$

Multiplying the W_4 matrix and $W_{\text{sub-factors (global)}}$ matrix gives the rating of the alternative strategies. SO-1 strategy (Trying to be the main port along to MSR route) has the highest rate among the alternative strategies with 0.208 degrees. WO-2 (Increasing capacity of the port superstructure with new investment) strategy is the second-highest strategy with 0.205 degrees. SO-2 (Acquiring credit for new investments related to the port strategic position) has a 0.128 importance degree, ST-1 (Taking advantage of the port position against its competitor) has a 0.104

importance degree, WO-1 (Long-term port investment to develop port infrastructure) has 0.126 importance degree, SO-3 (Integration Road side of the initiative with sea part to increase trade volume) has 0.095 importance degree, WT-2 (Turkish Aegean ports could act together to be a part of MSR) has 0.076 importance degree and WT-1 (Contact with different investors except for Chinese to spreading risk) has the lowest importance degree among the alternative strategies with 0.054 degrees. ANP analysis results show that SO-1 is the best strategy for Turkish Aegean ports with an overall priority value of 0.208.

4.9.2. Supermatrixes of the ANP model

Analytic Network Process includes three different supermatrixes as limit supermatrix, unweighted supermatrix, and weighted supermatrix. Supermatrixes of the ANP model are arranged with different clusters in order (alphabetical) from the top side to the bottom side (left part) (Saaty and Vargas, 2006).

Table 62: Unweighted Supermatrix of the ANP model (shown in three parts)

Clusters	Nodes	SO-1	SO-2	SO-3	ST-1	WO-1	WO-2	WT-1	WT-2	Best Strategy/Goal	Opportunities	Strengths	Threats
Alternatives	SO-1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	SO-2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	SO-3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	ST-1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	WO-1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	WO-2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	WT-1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	WT-2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Best Strategy for Aegean Ports	Best Strategy/Goal	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Opportunities	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.126137	0.000000	0.262753	0.200000
	Strengths	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.398410	0.452275	0.000000	0.800000
	Threats	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.061880	0.071604	0.078617	0.000000
Swot Subfactors	Weakness	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.413573	0.476122	0.658630	0.000000
	O1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.139424	0.000000	0.000000
	O2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.170239	0.000000	0.000000
	O3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.042564	0.000000	0.000000
	O4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.054355	0.000000	0.000000
	O5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.066368	0.000000	0.000000
	O6	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.097024	0.000000	0.000000
	O7	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.430026	0.000000	0.000000
	S1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.039709	0.000000
	S2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.236084	0.000000
	S3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.177591	0.000000
	S4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.079750	0.000000
	S5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.029816	0.000000
	S6	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.148826	0.000000
	S7	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.236084	0.000000
	S8	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.052139	0.000000
	T1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.091322
	T2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.243443
	T3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.064894
	T4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.600341
	W1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W6	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W7	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W8	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

The unweighted supermatrix is the matrix that gives the relative importance vector of each component as a result of pairwise comparisons (Table 62) (Saaty and Vargas, 2006).

Table 63: Weighted Supermatrix of the ANP Model (shown in three parts)

Clusters	Nodes	SO-1	SO-2	SO-3	ST-1	WO-1	WO-2	WT-1	WT-2	Best Strategy/Goal	Opportunities	Strengths	Threats
Alternatives	SO-1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	SO-2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	SO-3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	ST-1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	WO-1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	WO-2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	WT-1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	WT-2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Best Strategy for Aegean Ports	Best Strategy/Goal	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Opportunities	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.126137	0.000000	0.131376	0.100000
	Strengths	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.398410	0.226137	0.000000	0.400000
	Threats	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.061880	0.035802	0.039308	0.000000
Swot Subfactors	Weakness	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.413573	0.238061	0.329315	0.000000
	O1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.069712	0.000000	0.000000
	O2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.085120	0.000000	0.000000
	O3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.021282	0.000000	0.000000
	O4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.027177	0.000000	0.000000
	O5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.033184	0.000000	0.000000
	O6	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.048512	0.000000	0.000000
	O7	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.215013	0.000000	0.000000
	S1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.019855	0.000000
	S2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.118042	0.000000
	S3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.088796	0.000000
	S4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.039875	0.000000
	S5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.014908	0.000000
	S6	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.074413	0.000000
	S7	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.118042	0.000000
	S8	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.026069	0.000000
	T1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.045661
	T2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.121721
	T3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.032447
	T4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.300170
	W1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W6	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W7	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W8	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

Clusters	Nodes	Weakness	O1	O2	O3	O4	O5	O6	O7	S1	S2	S3	S4	S5
Alternatives	SO-1	0.000000	0.443369	0.049932	0.059824	0.309554	0.074564	0.083312	0.509405	0.396732	0.180749	0.163314	0.053829	0.081369
	SO-2	0.000000	0.119615	0.166353	0.371728	0.131546	0.110000	0.094355	0.140924	0.154936	0.162688	0.058647	0.053064	0.067906
	SO-3	0.000000	0.034075	0.053729	0.046941	0.076244	0.417502	0.413177	0.036297	0.046595	0.046475	0.042597	0.390254	0.343448
	ST-1	0.000000	0.160744	0.029090	0.037222	0.089278	0.079603	0.067855	0.108194	0.084447	0.239055	0.045724	0.042317	0.038237
	WO-1	0.000000	0.059010	0.377681	0.127793	0.193824	0.059772	0.053674	0.060094	0.048177	0.055570	0.130071	0.222108	0.282201
	WO-2	0.000000	0.047194	0.230285	0.094007	0.107009	0.047165	0.042141	0.042155	0.050548	0.175024	0.386552	0.090897	0.051077
	WT-1	0.000000	0.026882	0.061943	0.237435	0.037732	0.036208	0.033967	0.032943	0.069220	0.062184	0.091527	0.041025	0.034507
	WT-2	0.000000	0.109110	0.030987	0.025051	0.054814	0.175186	0.211520	0.069988	0.149343	0.078255	0.081569	0.106506	0.101255
Best Strategy for Aegean Ports	Best Strategy/Goal	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Swot Factors	0.100000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Opportunities	0.400000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Swot Subfactors	Strengths	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Threats	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	Weakness	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	O1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	O2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	O3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	O4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	O5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	O6	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	O7	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	S1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	S2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	S3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	S4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
S5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	
S6	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	
S7	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	
S8	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	
Swot Subfactors	T1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	T2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	T3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	T4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W1	0.037957	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W2	0.085322	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W3	0.217029	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W4	0.020233	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W5	0.015457	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W6	0.039775	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W7	0.012368	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
	W8	0.071858	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000

[illegible]

Source: Author's own elaboration

The weighted supermatrix is the matrix containing the values obtained by multiplying these values by the weight of the cluster in which the relevant component is located. The limit matrix is the matrix in which the relative importance values of the components are obtained by taking the limit of the weighted matrix (Table 63) (Saaty and Vargas, 2006).

Table 64: Limit Matrix of the ANP Model (shown in three parts)

[illegible][illegible]

Table 65: Limiting Priorities and Normalized by Cluster Priorities

Name	Normalized By Cluster	Limiting
SO-1	0.20811	0.104055
SO-2	0.12868	0.064338
SO-3	0.09543	0.047713
ST-1	0.10448	0.052238
WO-1	0.12639	0.063195
WO-2	0.20558	0.102792
WT-1	0.05454	0.027268
WT-2	0.07680	0.038400
Opportunities	0.18801	0.047002
Strengths	0.40812	0.102031
Threats	0.04555	0.011387
Weakness	0.35832	0.089580
O1	0.02621	0.006553
O2	0.03201	0.008002
O3	0.00800	0.002001
O4	0.01022	0.002555
O5	0.01248	0.003119
O6	0.01824	0.004560
O7	0.08085	0.020212
S1	0.01621	0.004052
S2	0.09635	0.024088
S3	0.07248	0.018120
S4	0.03255	0.008137
S5	0.01217	0.003042
S6	0.06074	0.015185
S7	0.09635	0.024088
S8	0.02128	0.005320
T1	0.00416	0.001040
T2	0.01109	0.002772
T3	0.00296	0.000739
T4	0.02734	0.006836
W1	0.02720	0.006800
W2	0.06114	0.015286
W3	0.15553	0.038883
W4	0.01450	0.003625
W5	0.01108	0.002769
W6	0.02850	0.007126
W7	0.00886	0.002216
W8	0.05150	0.012874

Source: Author's own elaboration

4.9.3. Comparing the ANP and AHP results

The same model of the ANP was structured as a hierarchical model for creating the same study in an AHP method. In the AHP model, assuming that there is no dependency among the factors of the model. The table shows the weight and ranking difference based on AHP-ANP methods among the alternative strategies of the Turkish Aegean ports.

Table 66: Ranking and Weight Comparison of the Turkish Aegean Port Strategies with ANP and AHP Method

	SO-1	SO-2	SO-3	ST-1	WO-1	WO-2	WT-1	WT-2
Weights in AHP	0.198	0.126	0.94	0.103	0.127	0.218	0.55	0.75
Ranking in AHP	2	3	6	5	4	1	6	7
Weights in ANP	0.208	0.128	0.095	0.104	0.126	0.205	0.54	0.76
Ranking in ANP	1	3	6	5	4	2	8	7

Source: Author's own elaboration

The priorities of the alternative strategies that were calculated with the AHP method are shown below. The ANP pairwise comparison matrices were used to compute the alternative strategy's weight and rank in the AHP model to compare two different methods' calculations and rankings.

$$W_{\text{alternatives (AHP)}} = \begin{bmatrix} SO1 \\ SO2 \\ SO3 \\ WO1 \\ WO2 \\ ST1 \\ WT1 \\ WT2 \end{bmatrix} = \begin{bmatrix} 0.198 \\ 0.126 \\ 0.094 \\ 0.127 \\ 0.218 \\ 0.103 \\ 0.055 \\ 0.075 \end{bmatrix}$$

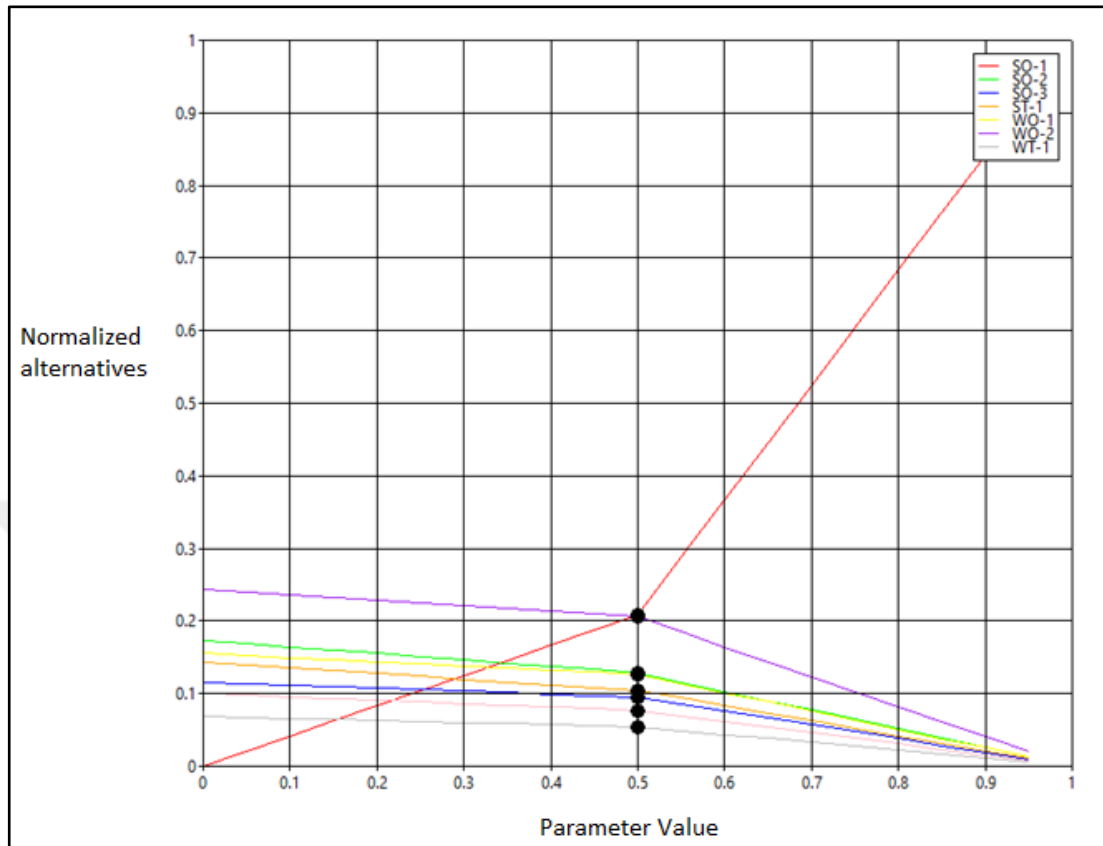
Based on the AHP method, the WO-2 strategy (Increasing capacity of the port superstructure with new investment) has the highest rate among the alternative strategies with 0.218 degrees. SO-1 (Trying to be the main port along to MSR route) strategy is the second-highest strategy with 0.198 degrees. SO-2 (Acquiring credit for new investments related to the port strategic position) has a 0.126 importance degree,

ST-1 (Taking advantage of the port position against its competitor) has a 0.103 importance degree, WO-1 (Long-term port investment to develop port infrastructure) has 0.127 importance degree, SO-3 (Integration Road side of the initiative with sea part to increase trade volume) has 0.094 importance degree, WT-2 (Turkish Aegean ports could act together to be a part of MSR) has 0.075 importance degree and WT-1 (Contact with different investors except for Chinese to spreading risk) has the lowest importance degree among the alternative strategies with 0.055 degrees. AHP analysis results show that WO-2 is the best strategy for Turkish Aegean ports with an overall priority value of 0.218. Assuming that there is no dependence among all factors of the ANP model to convert the ANP model to the AHP model, the overall priorities of the AHP strategies show that all weights of the strategies changed if the study compared with the ANP structure. The first and second ranks of the strategies changed when the ANP model is converted to the AHP model (Table 66).

4.9.4. Sensitivity Analysis of the ANP model

The purpose of the ANP sensitivity analysis is to find out how changes affect in the quantitative information in the ANP structure affect the weighted score for the ANP model's different alternatives (Adams, 2014: 1-12). The weighted score of the strategies was represented at the 0.5 parameter value. The increasing score of the SO-1 strategies (best strategy) will cause a decrease in the weighted score of the other alternative strategies. When the SO-1 weighted score increases from 0.208 to 1, the sum of the other strategies' weighted scores is equal to 0 (Figure 98).

Figure 98: Sensitivity Analysis of the ANP Model



Source: Author's own elaboration

4.10. VALIDATION OF THE ANP METHOD

ANP method was accepted as a qualitative research method as it is based upon both qualitative and quantitative judgment to solve multiple-criteria decision-making problems. The end of the ANP model result gives a quantitative outcome however the technique could not accept that it's a quantitative method. To create a model for decision-making problems in ANP, the data collection part of the method was created with a literature review and expert knowledge. In this study Pang's (2018) CCPE Model factors that determine port competitiveness along the MSR were considered to specify SWOT factors of the Turkish Aegean ports however based on the expert view, some of the factors changed or updated to new changes of the OBOR project. In the data analysis section of the study, pairwise comparisons of the matrix were determined with the help of expert knowledge therefore objective perspective falls into both the

data collection and data analysis part of the study. It is impossible to reach the same consequences using data and information from different cases and studies. Nonetheless, it is an obvious fact that different preferences and making decisions are made under different situations and conditions. As a result of the ANP method, it's a fact that preferring an expert view on the data collection section and the pairwise comparison of the SWOT matrix should not be cause for rejection of the validity of this study.

Another issue related to the ANP model of the study is the structure of the ANP model could not be analyzed to past data to check the validity of the ANP method. All SWOT factors and SWOT sub-factors are based on the current situations of the Turkish Aegean ports and their environments therefore due to the unavailability of the past data with respect to the ANP model of the Turkish Aegean ports, the validity of the model has not been tested in terms comparing of past and current data. This issue should not be accepted as a substantial shortcoming when coming to the evaluating part of the ANP model validation. The pairwise comparison matrices of the ANP model that are the inputs data to the proposed model are determined under current conditions of the Aegean region therefore it is probable to reach different outcomes since different comparison matrices of the ANP model could be procured at different periods of times.

Considering the issues mentioned above, the validity of the ANP model proposed in this dissertation was discussed in two ways. First, the ANP model results were compared with the AHP model outcomes with the same weighted scores in comparison matrices of the model (section 5.8.3.). Despite the same comparison matrices being used in AHP and ANP models, the results of the methods are not the same since ANP takes into account dependencies among SWOT factors while AHP does not that is why The ANP method gives more realistic results compared to the AHP method. In this dissertation, the ANP method procures a more accurate outcome by taking care of the dependency among the SWOT factors of the Turkish Aegean ports from the perspective of the OBOR project.

Consistency ratio (CR) is the one parameter that testifies the validity of the ANP model with respect to pairwise comparison matrices of the ANP structure based on random index and consistency index The consistency index of the ANP model (CI)

of a comparison matrix is given by $CI = (\lambda_{\max} - n) / (n - 1)$. $\lambda_{\max}$ is the maximum degree of the eigenvalue, and n represents the size of the matrix. CR ratio of the ANP model is reached by the formalization of the ratio of the consistency index and random index (Yuksel and Dagdeviren, 2007: 3364-3382). The result of the comparison matrix should have less than a 0.10 consistency ratio to ensure a valid consistency ratio of the ANP model. In this dissertation, the consistency ratio of the comparison matrices was reached by using Saaty's (2005) super decision program. Consistency ratios of the all pairwise comparison matrixes are less than 0.1 in the dissertation hence weighted degrees of all results are based on valid consistency ratios.

4.11. LIMITATION OF THE STUDY

The OBOR project was announced in 2013 therefore there was a limited source for literature review with respect to the Silk Road Economic Belt and Maritime Silk Road part of the initiative. It was difficult to compound topics, reference, and cite the OBOR initiative section by section since there were limited comprehensive literature studies related to the initiative. This situation is one of the limitations of the study. On the other hand, due to very limited sources for the project, a new research topology was created through SREB to MSR including the Turkey perspective. This dissertation created a literature framework of OBOR studies for future research.

In the data analysis section of the study, the ANP model of the Turkish Aegean ports has four SWOT factors, twenty-seven SWOT sub-factor, and seven alternative strategies therefore there are too long a comparison matrices to answer for experts. One of the problems of the ANP model is long comparison matrices to reach a weighted degree of the factors. Experts refuse to answer long comparison matrices questions, only a few experts could accept to answer comparison matrices in ANP studies. Despite this situation being the limitation of the study, five experts are acceptable for ANP studies.

From the starting point of the dissertation, the purpose of the study is to reach the regional perspective of Turkish Aegean ports concerning the OBOR project however there could be criticism about missing information related to Turkish Aegean port's individual SWOT analysis and individual strategies from the perspective the

OBOR initiative. There is a fact that firms especially maritime firms are not willing to publicize their firm current conditions related to the massive project such as the OBOR initiative. The European Union OBOR reports give a regional perspective related to the initiative and this study aims to reach the regional perspective of the Turkish Aegean ports from the perspective of the OBOR project. This situation could be accepted as a limitation of the reader, on the other hand, based on the main research question of the study ‘What are the strategies of Aegean ports in Turkey to be part of the OBOR project and take benefit from it in the long term?’ it will be not accepted as a limitation for dissertation.



CONCLUSION

Every part of the data collection section and analysis gives the information related to making-decision about the OBOR initiative to Turkish Aegean ports for benefit from the consequences of the SWOT, TOWS, and ANP analysis. The result of the analysis is appropriate for the aim of the dissertation as a present alternative strategy that can be applied to the ports in the Turkish Aegean region and exhibit the best alternative for Turkish Aegean ports. Four objectives of the dissertation were made explicit such as examining OBOR from different perspectives analyzing different resources, strategic analysis of the Turkish Aegean ports to understand the current position from the perspective of OBOR, determining alternative strategies to integrate Turkish Aegean ports and OBOR (especially MSR), determining best strategies to overcome difficulties related to MSR and giving advice of Turkish Aegean ports managements to have a feasible strategic plan concerning the MSR. Ports should update their strategic plans based on comprehensive changes in the global economy and transportation. The MSR project, especially OBOR, is one of the issues that should be addressed and studied in the long-term port plans for the next 10 to 30 years for ports. It is an obvious fact that such a huge project as the OBOR project will develop rapidly under the leadership of China and will bring great innovation in maritime affairs. Ports should get ready for OBOR especially MSR developments otherwise they could not compete with other ports in their area. Turkish Aegean Ports hasn't got comprehensive strategies to apply next 30 years with respect to the OBOR project.

Based on a Semi-structured interview, literate review, and expert knowledge, SWOT sub-factors of the Turkish Aegean ports were reached in terms of the OBOR project. Strength sub-factors of the Turkish Aegean ports are Channel Depth (S-1), Anchorage Depth (S-2), Fuel Supply (S-3), Highway Network (S-4), Trunk Road (S-5), Distance to Strategic Transport Routes (S-6), Distance to Hub Ports (S-7) and Maintenance Supply (S-8). Weakness sub-factors are Lightering Anchorage (W-1), Storage Conditions (W-2), Berth Sufficiency (W-3), Wharf Categories (W-4), Crane Equipment (W-5), Railway Network (W-6), Customs Clearance Time (W-7), and Distance to Major Cities (W-8). Opportunity SWOT sub-factors are Increasing port

connectivity (O-1), MSR will help the development of ports (O-2), Credit capacity of Chinese banks (O-3), MSR will boost the trade (O-4), Turkey could be the logistic hub (O-5), Turkey is part of the middle corridor (O-6) and Route of the MSR (O-7). Threat sub-factors are the Debt-trap policy of China (T-1), Acquisition of Piraeus Port by COSCO (T-2), Negative attitude of world powers (T-3), and Uncertainty of the MSR transport routes (T-4). Although the constitution of the SWOT sub-factors of the Turkish Aegean port is the first part of the study, the result gives a general perspective of Turkish Aegean ports in terms of their current condition related to the OBOR initiative.

One of the purposes of the study is to find alternative strategies that can be applied to the ports in the Turkish Aegean region from the perspective of the OBOR therefore at the end of the application of the TOWS analysis, eight alternative strategies were reached such as ‘Trying to be the Main Port along to MSR Route (SO-1)’, ‘Acquiring Credit for New Investment Related to the Port Strategic Position (SO-2)’, ‘Integration Road-Side of the Initiative with Sea-part to Increase Trade Volume (SO-3)’, Longterm Port Investment to Develop Port Infrastructure (WO-1), Increasing Capacity of the Port Superstructure with New Investment (WO-2), Taking Advantage of the Port Position Against its Competitor (ST-1), Contact with Different Investors except for Chinese to Spreading Risk (WT-1), Turkish Aegean Ports could act Together to be a Part of MSR (WT-2). Regardless of choosing the best among them, the determined strategies are important for the Aegean ports in terms of the OBOR initiative and they can evaluate each strategy separately themselves.

According to an expert assessment of the comparison matrix of the ANP model of the study, weaknesses have the highest importance degree among the SWOT factor with 0.398 degrees if there is no dependence between SWOT factors. Strength has a second-place among the SWOT factors with 0.413 degrees, the opportunity has 0.216 degrees in third place and the threat has the lowest important degrees among SWOT subfactors of the Turkish Aegean Ports with 0.061 degrees. Assuming that there is no dependence among the Turkish Aegean port's SWOT factors, the weakness SWOT factor is more important than the other three SWOT factors in terms of OBOR perspective. The dependence of the SWOT factors (Wfactors) and interdependent priorities of the Strength, Weaknesses, Opportunities, and Threats factors was ignored.

The result of the SWOT factors weight changed from 0.398 to 0.417, 0.413 to 0.368, 0.126 to 0.163, and 0.061 to 0.051. There is a certain change between w_1 and W factors when the dependence and interdependence priorities of the SWOT factors were neglected.

The result of the comparison matrix for Strength subfactors indicates that 'Anchore Depth' and 'Distance to Hub Ports' Strength Swot sub-factor have the highest local weight among all Strenght sub-factors with 0.236 degrees. 'Fuel supply' sub-factor has 0.177 local weight degree and the second place in the comparison matrices for Strength sub-factors. 'Distance to Strategic Transport Routes' local weight is 0.148, 'Highway Network' local weight is 0.079, 'Maintenance Supply' local weight is 0.052, 'Channel Depth' local weight is 0.039 and 'Trunk Road' has the lowest local weight among the Pairwise comparison matrices for 'Strengths' subfactors with 0.029 degrees. Weighted degree analysis among the Strenght sub-factors of the Turkish Aegean ports specifies that four Strenght SWOT sub-factor such as Anchorage DepthFuel (S2), Maintenance Supply (S3), Distance to Strategic Transport Routes (S6), Distance to Hub Ports (S7) are more important than other four, therefore, port authorities should pay attention to these factors related to the OBOR project strategies.

Pairwise comparison matrix for Weakness subfactors shows that 'Berth Sufficiency' Weakness Swot sub-factor has the highest local weight among Weaknesses sub-factors with 0.434 degrees. 'Storage Conditions' sub-factor has 0.170 local weight degree and the second place in the comparison matrices for Weakness sub-factors. 'Distance to Major Cities' local weight is 0.143, 'Railway Network' local weight is 0.079, 'Lightering Anchorage' local weight is 0.075, 'Wharf Categories' local weight is 0.040, 'Crane Equipment' local weight is 0.030, and 'Customs Clearance Time' has the lowest local weights among the pairwise comparison matrices for 'Weakness' subfactors with 0.024 degrees. Weighted degree analysis among the Weakness sub-factors of the Turkish Aegean ports indicates that two weakness SWOT sub-factor such as Storage Conditions (W2) and Berth Sufficiency (W3) has the highest degree among the eight weakness sub-factor therefore ports give more importance to these factors in respect to the OBOR initiative.

Analyzing the comparison matrices of the ‘Opportunities’ subfactors shows that the ‘Route of the MSR’ Weakness Swot sub-factor has the highest local weight among the Weaknesses sub-factors with 0.430 degrees. ‘MSR will help to the development of ports’ sub-factor has 0.170 local weight degree and the second place in the comparison matrices for Opportunities sub-factors. ‘Increasing port connectivity’ local weight is 0.139, ‘Turkey is part of the middle corridor’ local weight is 0.097, ‘Turkey could be the logistic hub’ local weight is 0.066, ‘MSR will boost the trade’ local weight is 0.054, ‘Credit capacity of Chinese banks’ has the lowest local weights among the pairwise comparison matrices for ‘Opportunities’ subfactors with 0.042 degrees. Weighted degree analysis among the Opportunities sub-factors of the Turkish Aegean ports shows that the Route of the MSR (O7) is significant for Turkish Aegean ports hence Turkish Aegean ports should take care of the route of the initiative while they are making decisions related to the project and position of the region will be the best opportunity from the perspective the OBOR.

Based on matrices of the ‘Threats’ subfactors demonstrates that the ‘Uncertainty of the MSR transport routes’ Threats Swot sub-factor has the highest local weight among Threats sub-factors with 0.600 degrees. ‘Acquisition of Piraeus Port by COSCO’ sub-factor has 0.243 local weight degree and the second place in the comparison matrices for Threats sub-factors. ‘Dept-trap policy of China’ local weight is 0.091 and ‘The negative attitude of world Powers’ has the lowest local weights among the pairwise comparison matrices for ‘Threats’ subfactors with 0.064 degrees. Turkish Aegean ports should consider the ‘Uncertainty of the MSR transport routes (T4)’ threat sub-factor since their investment plans could change anytime due to route changes of the initiative.

Calculations of the Overall priority of the sub-factors indicate that Berth Sufficiency (W3) is the most weighted degree among the all SWOT sub-factors hence Turkish Aegean ports focus on their berth condition while making a decision related to the OBOR initiative. The negative attitude of world Powers (T3) has the lowest degree in the overall priority of the sub-factors for this reason it could be considered insignificant among the SWOT sub-factors regarding the initiative.

Pairwise comparison matrices of ANP analysis for the priorities of the different alternative strategies based on the ‘S1’ sub-factor indicate that SO-1 has the highest

local weight among the alternative strategies. If the same analysis were realized for S2, S3, S4, S5, S6, S7, S8, W1, W2, W3, W4, W5, W6, W7, W8, O1, O2, O3, O4, O5, O6, O7, O8, T1, T2, T3, T4 outcome of the pairwise comparison matrices show in turn that WO-1, ST-1, SO-3, SO-3, SO-2, SO-1, ST-1, SO-1, ST-1, ST-1, WO-2, ST-1, WO-2, WT-2, SO-3, SO-1, WO-2, SO-2, SO-1, SO-3, SO-3, SO-1, WT-1, WO-1, SO-2, SO-1 has the highest local weight degree among the strategies in respect to determined SWOT sub-factor. Results of the analysis give data on Turkish Aegean ports, which alternative strategies are more significant based on the specified SWOT sub-factor. Based on every port's different characteristics, Turkish Aegean ports could make a different decision from each other if they use only these analysis results regarding the OBOR initiative.

The result of the ANP analysis demonstrates that the SO-1 strategy (Trying to be the main port along to MSR route) has the highest rate among the alternative strategies with 0.208 degrees. WO-2 (Increasing capacity of the port superstructure with new investment) strategy is the second-highest strategy with 0.205 degrees. SO-2 (Acquiring credit for new investments related to the port strategic position) has a 0.128 importance degree, ST-1 (Taking advantage of the port position against its competitor) has a 0,104 importance degree, WO-1 (Long-term port investment to develop port infrastructure) has 0.126 importance degree, SO-3 (Integration Road side of the initiative with sea part to increase trade volume) has 0.095 importance degree, WT-2 (Turkish Aegean ports could act together to be a part of MSR) has 0.076 importance degree and WT-1 (Contact with different investors except for Chinese to spreading risk) has the lowest importance degree among the alternative strategies with 0.054 degrees. According to SWOT, TOWS, and comparison matrices of the ANP based on expert knowledge, SO-1 is the best strategy for Turkish Aegean ports with an overall priority value. Turkish Aegean ports should give importance to the ranking of the strategies if they make a decision in terms of the OBOR initiative, especially MSR.

Considering the dissertation literature review and previous research related to Turkish Aegean Ports strategies, it was found that there is limited comprehensive research related to the OBOR project. The main contributions of the study are to show the current condition of the Turkish Aegean ports in terms of the OBOR project,

demonstrate the alternative strategies that could be applied by port authorities, and select the best alternative for Turkish Aegean ports based on expert knowledge.

In this study, while constructing the ANP model of the Turkish Aegean ports SWOT-TOWS analysis, dependence among the SWOT factors was evaluated however SWOT sub-factors dependence was not considered. For future research, the same model could be constructed, not only considering dependence among the SWOT factors but also among the SWOT sub-factors dependence could be evaluated.



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APPENDICES

Appendix 1: Semi-structured interview questions with Aegean Ports in Turkey

(C-1)-1. Is the channel depth sufficient for the ships with large drafts coming to the port along the path followed by the ships?

(C-2)-2. Do ships coming to the port and having to wait for cargo operations have problems in terms of anchoring depth?

(C-3)-3. - Do you carry out offshore load lighting operations on ships that have draft and access channel problems while berthing the port?

(S-1) -4. Do you provide food, water supply, and maintenance-repair services for the ships in the port?

(S-2)-5. Do refueling services provided to the ships in the port?

(S-3)-6. Do you consider existing storage space sufficient due to the prospective capacity increase and the increase in ship berthing frequency regarding the One Belt One Road project?

(I-1)-7. Regarding the One Belt One Road project, do you think the number of berths is sufficient against a possible cargo handling demand increase in the future?

(I-2)-8. What type of cargo do you serve at the port?

(I-3)-9. Regarding the One Belt One Road project, do you think you have sufficient handling equipment in case of a possible cargo handling demand increase in the future?

(P-1)-10. Does the road connection of the port enable you to trade efficiently between the port hinterland and your business partners?

(P-2)-11. Does the rail connection of the port enable you to trade efficiently between the port hinterland and your business partners?

(P-3)-12. Does the port have a direct connection with the main roads?

(P-4)-13. How do you evaluate the port location in terms of distance to central cities?

(P-5)-14. How do you evaluate the position of the port in terms of international sea routes, straits, passage, and constantly used sea routes?

(P-6)-15. How do you evaluate the location of the port in terms of distance to the hub ports and connection of the hub ports' transportation network?

(E-1)-16. Do you think that the customs clearance time spent for an average cargo in the port is enough for the port to be competitive?

17. What are the opportunities that the One Belt One Road project will provide for the port?

18. What could be the threats posed by the OBOR project for the port?



Appendix 2: Profile of Participants

Name and Surname	Title Position	Interview Code	Age	Sector Experience (Years)	Education
Port Employee 1	Manager	P1	48	24	College
Port Employee 2	Manager	P2	39	20	High School
Port Employee 3	Manager	P3	44	25	College
Port Employee 4	Manager	P4	52	28	College
Port Employee 5	Manager	P5	58	32	College
Port Employee 6	Manager	P6	49	19	College
Port Employee 7	Manager	P7	46	21	College
Port Employee 8	Manager	P8	38	15	Master
Port Employee 9	Manager	P9	61	30	College
Port Employee 10	Manager	P10	57	19	College
Port Employee 11	Manager	P11	49	22	Master
Port Employee 12	Manager	P12	44	17	College

Appendix 3: Expert Profile

NO:	Job Title	Length of Service	Academic qualifications
1	Associate Proffessor	16	PHD
2	Port Operation Specialist	26	Master
3	Associate Proffessor	19	PHD
4	Port Planing Specialist	21	Master
5	Professor	28	PHD

Appendix 4: Comparison matrixes of the ANP model

Within the scope of the 'OBOR' project of the Aegean ports in Turkey, the most appropriate strategy for the region will be selected among the strategies to be implemented. It is very important to answer the questions carefully and diligently in order to obtain healthy and consistent results. An example of an answer is shown below. Thank you for participating in the study.

Example: Please compare the "Strengths" node in the "Swot Subfactors" cluster for below degrees.

Intensity of importance	Definition
1	Equal importance
3	Moderate importance
5	Strong importance
7	Very strong importance
9	Extreme importance
2, 4, 6, 8	Intermediate values (For a compromise between the above values)

Based on comparison matrixes of the Strengths, if 'S1' has more very strong importance than 'S2' then the number "7" on the right should be marked.

Comparisons wrt "Strengths" node in "Swot Subfactors" cluster																			
	S1	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	S2

Based on comparison matrixes of the Strengths, if 'O2' has more extreme importance than 'O3' then the number "9" on the right should be marked.

Comparisons wrt "Strengths" node in "Swot Subfactors" cluster																			
	O2	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	O3

Comparison Matrixes

Comparisons wrt "Best Strategy/Goal" node in "Swot Factors" cluster																			
1.	Opportunities	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Strengths
2.	Opportunities	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Threats
3.	Opportunities	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Weakness
4.	Strengths	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Threats
5.	Strengths	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Weakness
6.	Threats	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Weakness
Comparisons wrt "Strengths" node in "Swot Factors" cluster																			
1.	Opportunities	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Threats
2.	Opportunities	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Weakness
3.	Threats	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Weakness
Comparisons wrt "Weakness" node in "Swot Factors" cluster																			
1.	Opportunities	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Threats
Comparisons wrt "Opportunities" node in "Swot Factors" cluster																			
1.	Strengths	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Threats
2.	Strengths	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Weakness
3.	Threats	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Weakness
Comparisons wrt "Threats" node in "Swot Factors" cluster																			
1.	Opportunities	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Threats
Comparisons wrt "Strengths" node in "Swot Subfactors" cluster																			
1.	Channel Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Anchorage Depth
2.	Channel Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Fuel Supply
3.	Channel Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Highway Network
4.	Channel Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Trunk Road
5.	Channel Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Strategic Transport Routes
6.	Channel Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Hub Ports
7.	Channel Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Maintenance Supply
8.	Anchorage Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Fuel Supply
9.	Anchorage Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Highway Network
10.	Anchorage Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Trunk Road
11.	Anchorage Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Strategic Transport Routes

12.	Anchorage Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Hub Ports
13.	Anchorage Depth	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Maintenance Supply
14.	Fuel Supply	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Highway Network
15.	Fuel Supply	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Trunk Road
16.	Fuel Supply	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Strategic Transport Routes
17.	Fuel Supply	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Hub Ports
18.	Fuel Supply	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Maintenance Supply
19.	Highway Network	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Trunk Road
20.	Highway Network	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Strategic Transport Routes
21.	Highway Network	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Hub Ports
22.	Highway Network	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Maintenance Supply
23.	Trunk Road	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Strategic Transport Routes
24.	Trunk Road	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Hub Ports
25.	Trunk Road	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Maintenance Supply
26.	Distance to Strategic Transport Routes	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Hub Ports
27.	Distance to Strategic Transport Routes	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Maintenance Supply
28.	Distance to Hub Ports	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Maintenance Supply
Comparisons wrt "Weakness" node in "Swot Subfactors" cluster																			
1.	Lightering Anchorage	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Storage Conditions
2.	Lightering Anchorage	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Berth Sufficiency
3.	Lightering Anchorage	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Wharf Categories
4.	Lightering Anchorage	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Crane Equipment
5.	Lightering Anchorage	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Railway Network
6.	Lightering Anchorage	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Customs Clearance Time
7.	Lightering Anchorage	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Major Cities (City Scale)
8.	Storage Conditions	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Berth Sufficiency
9.	Storage Conditions	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Wharf Categories
10.	Storage Conditions	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Crane Equipment

11.	Storage Conditions	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Railway Network
12.	Storage Conditions	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Customs Clearance Time
13.	Storage Conditions	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Major Cities (City Scale)
14.	Berth Sufficiency	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Wharf Categories
15.	Berth Sufficiency	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Crane Equipment
16.	Berth Sufficiency	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Railway Network
17.	Berth Sufficiency	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Customs Clearance Time
18.	Berth Sufficiency	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Major Cities (City Scale)
19.	Wharf Categories	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Crane Equipment
20.	Wharf Categories	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Railway Network
21.	Wharf Categories	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Customs Clearance Time
22.	Wharf Categories	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Major Cities (City Scale)
23.	Crane Equipment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Railway Network
24.	Crane Equipment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Customs Clearance Time
25.	Crane Equipment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Major Cities (City Scale)
26.	Railway Network	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Customs Clearance Time
27.	Railway Network	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Major Cities (City Scale)
28.	Customs Clearance Time	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Distance to Major Cities (City Scale)
Comparisons wrt "Opportunities" node in "Swot Subfactors" cluster																			
1.	Increasing port connectivity	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	MSR will help to the development of ports
2.	MSR will help to the development of ports	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Credit capacity of Chinese banks
3.	Credit capacity of Chinese banks	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	MSR will boost the trade
4.	MSR will boost the trade	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkey could be the logistic hub
5.	Turkey could be the logistic hub	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkey is part of the middle corridor
6.	Turkey is part of the middle corridor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Route of the MSRoF
7.	MSR will help to the	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Credit capacity of Chinese banks

	development of ports																		
8.	MSR will help to the development of ports	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	MSR will boost the trade
9.	MSR will help to the development of ports	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkey could be the logistic hub
10.	MSR will help to the development of ports	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkey is part of the middle corridor
11.	MSR will help to the development of ports	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Route of the MSRof
12.	Credit capacity of Chinese banks	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	MSR will boost the trade
13.	Credit capacity of Chinese banks	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkey could be the logistic hub
14.	Credit capacity of Chinese banks	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkey is part of the middle corridor
15.	Credit capacity of Chinese banks	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Route of the MSRof
16.	MSR will boost the trade	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkey could be the logistic hub
17.	MSR will boost the trade	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkey is part of the middle corridor
18.	MSR will boost the trade	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Route of the MSRof
19.	Turkey could be the logistic hub	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkey is part of the middle corridor
20.	Turkey could be the logistic hub	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Route of the MSRof
21.	Turkey is part of the middle corridor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Route of the MSRof
Comparisons wrt "Threats" node in "Swot Subfactors" cluster																			
1.	Dept-trap policy of China	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquisition of Piraeus Port by COSCO
2.	Dept-trap policy of China	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Negative attitude of world powers
3.	Dept-trap policy of China	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Uncertainty of the MSR transport routes
4.	Acquisition of Piraeus Port by COSCO	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Negative attitude of world powers
5.	Acquisition of Piraeus Port by COSCO	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Uncertainty of the MSR transport routes
6.	Negative attitude of world powers	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Uncertainty of the MSR transport routes

Comparisons wrt " Channel Depth" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Anchorage Depth" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure

11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Fuel Supply" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Highway Network" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume

3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure

16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Trunk Road" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Distance to Strategic Transport Routes" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor

10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment

21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Distance to Strategic Transport Routes" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment

6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Distance to Hub Ports" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position

2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor

15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
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22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
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26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

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28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Maintenance Supply" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment

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17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
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22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
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26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Maintenance Supply" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume

9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
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12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
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17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
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28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Maintenance Supply" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
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23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Lightering Anchorage" node in "Alternatives" cluster																			

1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Storage Conditions" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure

11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Berth Sufficiency" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Wharf Categories" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume

3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure

16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Crane Equipment" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Railway Network" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor

10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment

21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Customs Clearance Time" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment

6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Distance to Major Cities (City Scale)" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position

2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor

15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Increasing port connectivity" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment

12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "MSR will help to the development of ports" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume

9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure

20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Credit capacity of Chinese banks" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure

5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment

17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "MSR will boost the trade" node in "Alternatives" cluster																			

1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Turkey could be the logistic hub" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure

11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Turkey is part of the middle corridor" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Route of the MSR" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume

3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure

16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Dept-trap policy of China" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Acquisition of Piraeus Port by COSCO" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor

10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment

21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Negative attitude of world powers" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position
2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment

6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk

18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
20.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
21.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
22.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
23.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
24.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
25.	Longterm port investment to develop port infrastructure	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
26.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
27.	Increasing capacity of the port superstructure with new investment	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
Comparisons wrt "Uncertainty of the MSR transport routes" node in "Alternatives" cluster																			
1.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Acquiring credit for new investments related to the port strategic position

2.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
3.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
4.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
5.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
6.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
7.	Trying to be the main port along to MSR route	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
8.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Integration Road side of the initiative with sea part to increase trade volume
9.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor
10.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
11.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
12.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
13.	Acquiring credit for new investments related to the port strategic position	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
14.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Taking advantage of the port position against its competitor

15.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
16.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Increasing capacity of the port superstructure with new investment
17.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Contact with different investors except for Chinese to spreading risk
18.	Integration Road side of the initiative with sea part to increase trade volume	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR
19.	Taking advantage of the port position against its competitor	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Longterm port investment to develop port infrastructure
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28.	Contact with different investors except for Chinese to spreading risk	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Turkish Aegean ports could act together to be a part of MSR

