

LOGISTICS, ENERGY AND TRADE

ON THE MODERN SILK ROAD



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LOGISTICS, ENERGY AND TRADE

ON THE MODERN SILK ROAD

A THESIS SUBMITTED TO

THE GRADUATE SCHOOL OF SOCIAL SCIENCES

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BY

TANSEL ULUDERYA

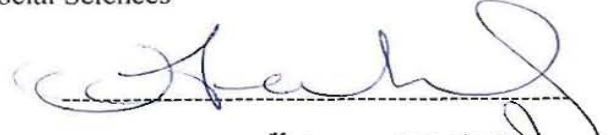
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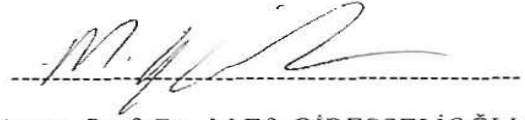
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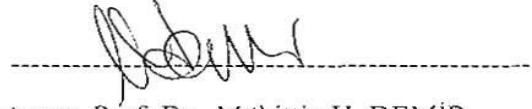
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ÖZET

MODERN İPEK YOLU

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Sürdürülebilir Enerji Yönetimi Yüksek Lisansı, Sosyal Bilimler Enstitüsü

Tez Yöneticisi: Doç. Dr. Muhittin Hakan Demir

Eylül 2016, 65 sayfa

Günümüzde yeni İpek Yolu fikirleri revize edilmektedir, özellikle İpek Yolu üzerinde olan ülkeler bu güzergâhın önemini farkındalar. Bu çalışmada ki analizler, Modern İpek Yolunun belirlenen araştırma soruları olan; enerjinin durumu, ticari ve lojistik olarak etkileşimler, gelecekteki olası potansiyeller ve Modern İpek Yolunun gerçekleşme ihtimalleri sorularına lojistik, enerji ve ekonomi disiplinleri ve bunların birbirleriyle etkileşimlerini inceleyerek cevap vermektedir. Bu vesile ile Modern İpek Yolu lojistiği, ticareti, ekonomisi ve enerji potansiyellerini, oluşturulan veri tabloları detaylı bir şekilde açıklamaktadır. Ayrıca bu güzergâh üzerindeki büyük oyuncuların Modern İpek Yoluna yön vermeleri için önemli rolleri olduğu, ana aktörler olan Çin ve Rusya gibi yüksek nüfus ve geniş ticaret hacimlerine sahip oluşlarından dolayı, ekonomi ve enerji konuları üzerinde etkin rolleri olduğunu anlatmaktadır. Sonuç olarak modern İpek Yolu, lojistik, ticaret, ekonomi ve enerjinin potansiyelleri adapte edilen excel datalarıyla var olan koşulların farkındalığı da sağlanmış olacak.

Anahtar kelimeler: *İpek Yolu, Modern İpek Yolu, İpek Yolu Lojistiği, İpek Yolu Enerjisi, İpek Yolu Ticareti*

ABSTRACT

THE MODERN SILK ROAD

Tansel Uluderya

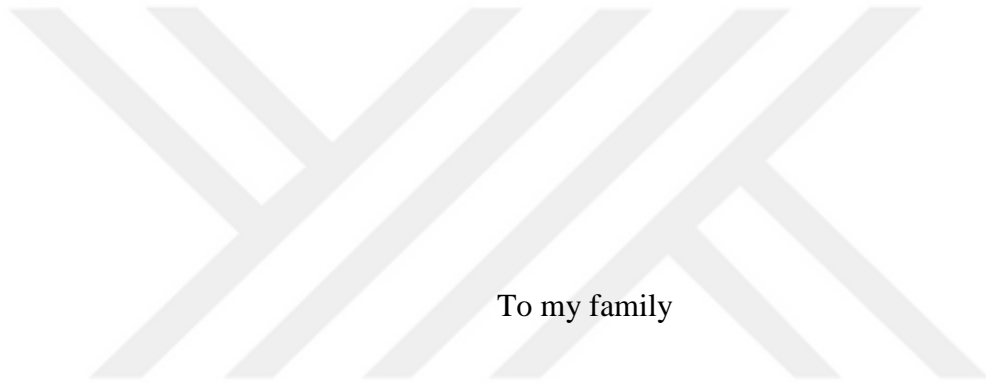
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These days the new Silk Road ideas are revising, especially the countries which are located on the Silk Road are aware of the importance of the Silk Road Route. This thesis analysis about Modern Silk Road, examining Logistics of The New Silk Road, energy issues of the new Silk Road and exist trade flows of Today's Silk Road. The major players in this route will play significant roles to give directions to this route. Main players are China and Russia which are highly populated and their trade volume have more essential role of economy and energy. The analysis in this study is Modern Silk Road in terms of logistics, economy, energy and interactions between these disciplines in order to answers research questions such as situation of energy, trade and logistics interactions on The Silk Road, possible potentials in the future and possibility of modern Silk Road. Hereby The Modern Silk Road will be understood the conditions of the Silk Road's logistics, trade, economy and energy potential by the adaptation of a number of excel data and obtained primary data from interviews to be aware of Today's Silk Road circumstances.

Keywords: *Silk Road, Modern Silk Road, Silk Road Logistics, Silk Road Energy, Silk Road Trade*



To my family

Acknowledgement

Firstly, I would like to thank to my advisor, Assc. Prof. Dr Muhittin Hakan DEMİR for his guidance and priceless support throughout my thesis. I would not have done this thesis without his endless support and academic knowledge.

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CHAPTER I

Introduction

In the first century B.C, the Roman Empire and the China were the prominent powers in their respective regions, those powers knew little about each other, and they grew closer in 53 B.C In Mesopotamia, around this time the Roman Empire lost 20.000 soldiers in a war because their enemies used flags made of half transparent material which seemed magical to them, this defeat was devastating to the roman empire but in time the fear they felt turned into admiration and silk became the latest fashion in roman empire, silk fabric became as valuable as its weight in gold, tradesmen saw opportunity in that and they began to move out in caravans to brave the harsh and challenging 8000 km road. Due to the fact that many caravans were on this route many inns and cities were built on this routes, in time with the goods many ideas, religions and inventions spread out of their respective regions, Buddhism and Islam spread to the east, printing and paper manufacture techniques spread out to the west and thus the bridge between east and west Judson, Morgan and Williams, (2000)

General perspective is that the Silk Road is a long highway between cities and someone picks some silk and take it to the end of the road” actually it was nothing like this, what happened was the tradesmen took their goods from one oasis to another and some other group of tradesmen purchased their goods and repeated the process, according to the professor the “silk road” was not a road per se but it was the cities and communities on the road. These communities grew for almost 1000 years, but in 10. A.D. Chine was destroyed because of civil war; due to this the travel between west and east became more dangerous. The desert cities that were dependent on the trade were abandoned and the connection between east and west slowly faded. Taklimakan desert, 1000 km in diameter death desert, in summer the temperature can rise up to 55 C, little to no water, you walk on a sea of sand. The note on documentary: The Silk Road, The world renowned trade

road which begins in China moves through Anatolia and Mediterranean Sea to Europe. Hansen (2000)

The Silk Road was not just a trade route; it was also the road for information, religion, ideas, armies and cultures between east and west. Centuries ago first Egyptians then Romans bought silk from Chinese. The transportation was with the caravans which moved on a specific road which, in later eras, will be known as “the silk road”. Since ancient times the silk industry held a very important role in many cultures. The spices and the silk from the Far East held an important role for the national politics in the west. Silk also made the eastern culture known by the westerners. The trade routes from China to Europe were formed from due to the fact that the silk and spices were being moved from east to west constantly. In medieval times, the trade caravan’s route began from Xi’an city in China, this route take them to Kashgar city in Uzbekistan, the route separated into two from here, one route is goes through Afghanistan to Caspian sea and the other route goes through Karakoram mountains to Iran and from there to Anatolia. Liu,X (2010). From Anatolia, Tradesmen could go through Black sea or the Mediterranean Sea or they could take the land route which goes through Thrace to Europe. This trade movement from east through the west was possible by the usage of an ancient road network. This thousands of kilometers long road network which tradesman constantly were carrying valuable silk, spices and porcelain back and forth caused culture and information exchange between continents. This road was later on called” the silk road”. Bulut (2014)

Beside form being a trade route the Silk Road is also an extraordinary cultural heritage which carries the marks of cultures, religions and races which lived around the road for centuries. After the Middle East, Turkish communities gained independence, the revitalization of silk road as a trade route and a cultural value were brought as a subject on many platforms, and the revitalization of the many historical buildings which were on this route began. The door to the west was called Xian. Millward, J. A (2007) It was an unbelievable road which was the lifeline for trade, a road which mixed cultures, religions, languages and ideas. Silk worm trade was forbidden. There is a myth about the silk coming in the west first time, the priests at that time hid silk worm cocoons in their staffs from China to Bursa and began manufacturing in 550 B.C. The trade caravans which moved

from Xi'an reached Anatolia and the shores of black sea after a 250-300 days of travelling. In China Islam lived a golden age, while getting rich by doing trade they were also spreading their religion, there are 60.000 Muslims in Xi'an. One of the, maybe the most important, ancient institutional structure of the human and economic history is the Silk Road. It is the name of the trade routes which began from China which goes through Anatolia and Mediterranean Sea to the Europe and also goes through to red sea to Africa, this road is named from the most valuable good that has been transferred between east and west which is silk. Silk was not just a valuable trade good those eras but also was a valuable economic currency which can be used instead of money. It was stocked just like a valuable ores. The cities and settlements resided on Silk Road, which also was called the spice road, gained more importance in time, due to this rise in importance new residential areas emerged, historical structures such as inns, bathhouses, bridges and docks were built. Nowadays, energy security, energy policy making, globalization of the world, importance of the logistics activities, being an energy hub, meaning of the geopolitics and sustainable energy issues on the world's agenda. Countries try to develop its energy strategies by new routes and types of energy reserves for diversifying to have secure and uninterrupted energy on the road to survive. China was a great player in the Silk Road. Nowadays, China announced new dream about the Silk Road which is calling the new Silk Road. According to the historical route of the Silk Road, the land-based "New Silk Road" will arise in Xi'an in central China. The Silk Road runs southwest from Central Asia to northern Iran before swinging west through Iraq, Syria, and Turkey. From Istanbul, the Silk Road crosses the Bosphorus Strait and heads northwest through Europe, also it is including Bulgaria, Romania, the Czech Republic, and Germany. Reaching Duisburg in Germany, it swings north to Rotterdam in the Netherlands. From Rotterdam, the path will go to south of Venice in Italy. Therefore it will meet up with the Maritime in Silk Road. Judson, Morgan and Williams (2000).



Figure 1.1 Historical Routes of the Silk Road (www.orexca.com)

In addition, The Silk Road was the road for information, religion, ideas, armies and cultures to move between east and west. Egyptians in Africa, Romans in Europe, Chinese and Indians in Asia engaged in commerce for long years on this route. This road which connected Asia, Europe and Africa has a huge historical importance but beside that it has become a symbol for the commerce culture which formed on this road. In this study, the relationships will be examined between Asia, Europe and Africa with the Silk Road's historical identity and this era's economic and commercial understanding, and try to gain foresight about this matter.

Also it can be found a lot of study about Silk Road in the literature. For example there are lots of books about Silk Road policies, health subjects and history. There is no recent paper about this topic out of the Demirler. Despite this fact, there are no examples of literature that are made considering energy, logistics and economic aspects. The literature on Silk Road Trade mainly consists of books. There are not many recent articles. The books on Silk Road trade usually focus on the historic perspective. For instance, a recent book by Whitfield (2004) titled ‘‘The Silk Road: Trade, Travel, War and Faith ‘‘ investigates the early history of Silk Road starting from Xun Empire. The main discussion in the book is on how trade emerged and developed on Silk Road. One study that investigates topics related parallel to the scope of this thesis’s the book Africa’s Silk Road by Broadman H. Broadman H (2007) This book analyses the economic perspective through by the Silk Road to India and China. The book also discusses

the historical context, patterns of trade flows, country policies and how companies are affected by these policies. However, the discussion presented in the book is limited to India and China. It does not question the interaction of trade with other significant phenomena such as logistics and energy.

The other book is on ‘Life on the Silk Road’ Whitfield (1999). These book based on real stories of the Silk Road. It is includes historical maps, stories and table of rulers. The report is published by Purtaş (2011) in Ankara; it is citing The Modern Silk Road Project between Middle Asia and South Asia is investigating on Afghanistan, Pakistan and India’s relationships of the Middle Asia Turks Republics.

On the other hand, the book which is called Resilkroad was edited by Bulut, 2014 in Istanbul; the book is includes 22 publications from different Authors. Book’s index is A Note On The Formation Of The ‘Silk Road’ As Long Distance Exchange Network, The Great Silk Exchange: How The World Was Connected And Developed, Silk Road – A Glance At Archaic Globalization, Rethinking The Region Of Peace, Collaboration And Trade Between The East And The West, Some Aspects Of Silk Road As A Paradigm For International Relations: Modern Politics And Multiculturalism, Silk Road Of The Century: A Research On Determining The Regional Market Potential Of The Transportation Corridor Tracece, The Ottomans And Long-Distance Trade In Early Modern World, Mawlana Jalaluddin Rumi And The Silk Road, Ethnical Variations In Personal Concern For Environment : A Case Study Along The Silk Road In Iran, The Approach Of Westerns Toward The Silk Road, The Famous Southern End Of The Silk Road : Zanzibar’s Role In Shaping The World Religions’ Map In The Region, Messages In Silk: Ornaments And Silken Dress Codes In 14th Century Art In Serbia, Possibilities Of Application Of Robinson Crusoe Example And The Theory Of Closed Systems In The Theory Of Economic Development In Countries In Transition Along The Silk Road, Case Of Serbia, Energy Sufficiency And Environmental Sustainability, The Western Balkans Geopolitics And Russian Energy Politics, Turkish Foreign Policy Between Euro skepticism And Eurasian Alternatives, Economic And Commercial Relations Between Turkey And Fast Growing Economics Of East Asia, Economic Relation Between Turkey And Macedonia, Impact Of Taksim Gezi Park Events On The Perceptions Of People In

The Middle East And The Balkans, The Political Economy Of Intra-Kashmir Trade, UNESCO World Heritage Sites And The Integration Of Western Balkan Economies In Global Economic Flows.

As it is mentioned above there is a second book is edited by Bulut, 2014 in Istanbul. The book is called ‘‘Medeniyetler Güzergahı İpek Yolunun Yenide Doğuşu’’. This book contains 20 publications from different Authors. Book’s index is Eurasian Peace and An Approach to the Ihya Welfare axis of the Silk Road: Silk Road Association, Ibn al-Jazari the Silk Road Intellectual he left the Geography Heritage on the Silk Road, her Related Building the Silk Road and Iran Geography , a Culture Path as Silk Road moral themes in the stories, xv.yy financialization Florence and the crisis Date North Anatolian route of the Silk Road, with Varying Trade routes with geographic discoveries and strategies it has developed in this situation Ottoman Interior of the Ottoman Normative Economic Structure and External Causes of Energy in the Ottoman Empire, the Great Silk Road and inter-civilization dialogue, the Feedback Silk Road: Modernity, the Silk Road again: the Times Merchandise, historic Silk Road route Black Sea Logistics Center Way to Becoming Basin, London , East to West Energy Road And Turkey's strategic importance, the European Union and SFS (Shanghai Cooperation Organization) axis in Turkey’s Economic Politics, Foreign Direct Investment And Economic Security, TRACECA Investment and Impact on Development, Turkey and Central Asia Technological Between Turkish Republic Science and New Trends in Telecommunication Field and Partner Agreements Key Reflections and Turkish newspaper in 2011 presidential elections Kyrgyzstan.

There are also a number of studies investigating particular medical issues within the Silk Road. The example of this study is according to Kutzin, Joseph, et al.2009, Behçet’s disease (BD), also known as the Silk Road disease, is a blinding inflammatory disorder of young adults found predominantly between the Mediterranean basin and the Orient, and is strongly associated with the major histocompatibility complex (MHC) antigen HLA-B51. In this article they review the history of Behçet’s disease since its first description by Hippocrates, the development of the trading routes collectively known as the Silk Road and the effect of population movement on the distribution of HLA-B51.

Methodology

During collecting and adopting data, screening, interviewing and comparative methods were used. First of all, some ways are followed in this thesis as writing and identify resource person's work on the subject, preparing a suitable plan for literature, using catalog in library work, the information obtained from sources and people were organized and notes, publications collecting from media and internet researching. The data was collected from library data base, internet pages and companies as primary data. As it is known, one based sources may be not enough or the proximity of accuracy. Therefore data is collected from different sources. Average has been taken from collected data to access more accurate information. There are many sources to obtain data especially Government's official and ministry web pages. To demonstrate and compare data, tables were created.

Analyses of the Silk Road countries were studied from the perspective of the three main key issues. These are trade, logistics and energy points. In the analysis for the trade view point, trade data was utilized trademap.org, central intelligent agency and atlas.media.mit.edu. In the analysis data processing methods was used to summarize, organize sorting and filtering. Also comparative analysis was applied. Highest and lowest trade items and countries with high and low trade potential were added to thesis. In addition, the reasons of low and high trade, how can it be improved, and their interactions was also examined.

At the part of logistics analysis, mainly, Logistics Performance Index (generated by World Bank) was used by filtered, sorted, summarized and compared Silk Road roadways countries. Also countries logistics infrastructures and which country is the best at infrastructure by logistics intermodal were demonstrated. In addition, countries distances were adopted by calculating on time and date website based on capital cities. In logistics performance index, some countries at highest points and some countries at lowest points and according to these, some comments and conclusions were extracted from this adopted table. Also these comments and conclusions were used to general conclusion of the modern Silk Road.

The analysis of energy part includes several comparative analyses including primary energy consumption by sources, total non-renewable proved reserves; energy performance with respect to energy trilemma, adopted state fragility index from www.worldenergy.org and www.oecd.org was also utilized to at another dimension to do analysis methodology.

The next step of this thesis is collecting data for creating primary data from industry to see from operating firms eyes by interviewing with companies. Namely, the other methodology of the thesis also contains, obtains and analyses primary data from industry. This is done in order to understand the view point of industry leading countries that operate internationally. The primary data is compared with the findings and conclusions drawn from the previous analysis.

When data are collected and adopted, some methodological approaches are applied in this thesis. First of all conceptual analyze is done, for getting primary data from industry, Chief executive officer and manager, interview method is applied and designed to understand practically perceptions of industry, viewpoints of firms, importance, infrastructures and future of the Silk Road, and comparing with previous data and implications in this thesis, by the connecting with global operators which have office in Izmir.

The Modern Silk Road semi structured interview questions regarding were prepared according to part of this thesis as Trade, Logistics and energy topics. The benefit of this method is, collecting data or information from a first source. Therefore researchers can be gained a broader knowledge. In addition, for increasing correctness percentage, interviewee' attitude should be observed because sometimes people may be under the influence of events and conditions. This situation can affect results and answers. Consequently, this situation was taken into account. Also competent person should be chosen for this reason; interviews are done with industry-leading companies and managers by face to face meeting, telephone and the other internet communicating tools.

In the final part of the methodology, interactions of between three disciplines were used to combine results of previous chapters, primary data from industry voice and final conclusions.

To answer research questions, screening, comparative and interviewing methods were followed. The Modern Silk Road is studied in three key titles namely trade, logistics and energy perspectives. As mentioned before, thesis uses comparatives and statistical methodologies. For example, Russia, Iran, Iraq and Azerbaijan are compared as energy reserves, logistics infrastructure, and similarities are investigated by author. On the other hand, it can be said that according to Logistics Performance Index, countries averages are examined on maximum point of range and minimum point of range.

- Is Silk Road revival possible?
- What is the situation of trade, logistics and energy on the Silk Road?
- What are interactions between trade, logistics and energy on the Silk Road?
- What are the possible potentials concerning the Silk Road in the future?

Literature Review

Generally, studies which are related with the Modern Silk Road, other studies are looking to history or single aspect. Some studies are about energy or trade for this reason; there are no studies for three aspects such as trade, logistics and energy.

The below table lists of relevant studies about the Modern Silk Road are located;

Author	Year	Title and	Where?	Publisher	Result(s)
Whitfield	2004 (Qualitative M.)	The Silk Road: Trade, Travel, War and Faith	Chicago	Serindia Publications	Investigates the early history of Silk Road starting from Xun Empire.
Whitfield	2005 (Qualitative M.)	Life on the Silk Road	Istanbul	Inkilap Kitabevi	These book based on real stories of the Silk Road. It is includes historical maps, stories and table of rulers.
Purtas	2011 (Qualitative M.)	The Modern Silk Road Project between Middle Asia and South Asia	Ankara	Ahmet Yesevi Üniversitesi, Mütevelli Heyet Başkanlığı	The Modern Silk Road Project between Middle Asia and South Asia is investigating on Afghanistan, Pakistan and India's relationships of the Middle Asia Turks Republics

Author	Year	Title	Where?	Publisher	Result(s)
Bulut	2014 (Qualitative M.)	Resilkroad	Istanbul	Sabahattin Zaim University Publications	The book is includes 22 publications from different Authors about Silk Road policies, economies and culture.
Bulut	2014 (Qualitative M.)	Civilizations Route Revival of the Silk Road	Istanbul	Sabahattin Zaim University Publications	This book contains 20 publications from different Authors
Verity, D. H., et al	1999 (Qualitative and Quantitative M.)	Behçet's disease, the Silk Road and HLA-B51: historical and geographical perspectives	London	Wiley Online Library	Behçet's disease (BD), also known as the Silk Road disease, is a blinding inflammatory disorder of young adults found predominantly between the Mediterranean basin and the Orient, and is strongly associated with major histocompatibility.
Demirler	2015 (Qualitative M.)	The revitalization of the historical Silk Road effect of Turkish economy	Tokat	Gaziosmanpaşa University	The other study is about isrelated about Modern Silk Road, this thesis starts with history and introduction of Historical Silk Road, Routes, Trade with Turks and World

Author	Year	Title	Where?	Publisher	Result(s)
Ablayeva	2013 (Qualitative M.)	The importance of the silk road in the tourism of Kazakhstan	Istanbul	Istanbul University	This thesis is about Tourism and History of the Silk Road also the Author generated swot analysis about this historical route.
Akkaymak	2009 (Qualitative M.)	Transport corridors between Europe-Asia and the reviving Silk Road	Istanbul	Istanbul Technical Uni.	This thesis is examined on historical improvements, European and Asian societies' trade relationships, logistics sector and silk road, European and Asia transporting corridors revival and revival of the silk road and Countries which are located on Eurasia transporting corridors.

Author	Year	Title	Where?	Publisher	Result(s)
Yidayiti	2003 (Qualitative M.)	Cihan's efforts to reactivate historical silk road:Policy towards Central Asia, Caucasus & Turkey	Ankara	Haccetepe University	In this study, China's attempts to build up "New Eurasian Continental Bridge," is examined in line with its general economic situation and with the "Western Regional Development Project. In that respect, this study covers the analysis of developments concerning transportation on the route and China's economic and political relations with the Central Asian, Caucasian countries and Turkey where the railway crosses.
Uzumcu, Adem, and Sidika Akdeniz	2014 (Qualitative M.)	New Silk Road: TRACECA and the Baku-Tbilisi-Kars Railway Project	Ankara	Turkish International Cooperation and Coordination Agency	This study is about European Unions' TRACECA project. This project is based road and rail networks to create a secure transport corridor.

Author	Year	Title	Where?	Publisher	Result(s)
Dugen	2011 (Qualitative M.)	Silk Road of the 21st Century	Ankara	21 Century Turkey Institute Magazine	This study is about historical improvements of the Silk Road and also in this study, possibility of the revival of Silk Road' questions is tried to find answers.
Erdem	2006 (Qualitative M.)	A chance for Eurasia: Revitalization of the historic Silk Road	Ankara	Eurasian Chamber of Commerce 2nd Summit Meeting	This meeting is about Revitalization of the historic Silk Road.
Kulaklikaya	2013 (Qualitative M.)	Modern Silk Road Central Asia's Global Gateway to Economy	Ankara	Economic Policy Research Foundation of Turkey	This study includes, Lpi, Silk Road's importance of Region, China's corridors plan (all directions), Transporting corridor between east and west And this study answers; what should we do to revive this route.

Author	Year	Title	Where?	Publisher	Result(s)
Kucukyildiz	2012 (Qualitative M.)	Modern Silk Road To Baku-Tbilisi-Kars Uninterrupted Railway Line Project	Kars	TURAN-SAM Turan Strategic Research Center Kars Kafkas University	According to this study, The world's energy needs them to translate here has caused the eyes of the world and the countries of the region. And for the transport of energy in the area of the region in which Turkey is a safe country, a variety of strategic projects (NABUCCO, TRACECA, the Baku-Tbilisi-Kars railway line UPS, The Baku-Tbilisi-Ceyhan Oil Pipeline) planned and is being implemented.
Atasoy	2010 (Qualitative M.)	Silk Road on The Age of Globalization	Antalya	Silk Road Symposium as a Cultural Corridor TMK UNESCO - Culture and Tourism Ministry	At this symposium outputs are about redevelopment of the Silk Road Era of Globalization and TRACECA project.

Author	Year	Title	Where?	Publisher	Result(s)
Ozdasli	2015 (Qualitative M.)	Chinese New Silk Road Projects And Global Impacts	Ankara	International Periodical for the Languages, Literature and History of Turkish or Turkic	This study is about China's new silk road project and its global influence. Also, it is about new Silk Road project and ABD and Turkey in economic perspective.
Broadman H.	2007 (Qualitative M.)	Africa's Silk Road: China and India's new economic frontier.	Washington	World Bank Publications	Analyses the economic perspective through by the Silk Road to India and China. The book also discusses the historical context, patterns of trade flows, country policies and how companies are affected by these policies. However, the discussion presented in the book is limited to India and China. It does not question the interaction of trade with other significant phenomena such as Logistics and Energy issues.

The study which is closest in terms of topic to this study is by Demirler (2015) but there are measurement differences between Demirler and this thesis. Demirler is looking to past period and periods but this thesis is looking to recent situation and future works. Also Demirler has a hypothesis and he is trying to prove. If something could be done, Silk Road will be revived. Demirler is examining five countries and countries politics. According to these countries, fatherland concept is emerging. To sum up, this thesis examines three different disciplines, but there is no interaction between them interprets such an approach in Demirler thesis.

It can be found a lot of study about Silk Road in the literature. For example there are lots of books about Silk Road policies, health subjects and history. There is no recent paper about this topic. Despite this fact, there are no examples of literature that are made considering energy, logistics and economic aspects. The literature on Silk Road Trade mainly consists of books. There are not many recent articles. The books on Silk Road trade usually focus on the historic perspective. For instance, a recent book by Whitfield (2004) titled "The Silk Road: Trade, Travel, War and Faith" investigates the early history of Silk Road starting from Xun Empire. The main discussion in the book is on how trade emerged and developed on Silk Road. One study that investigates topics related parallel to the scope of this thesis's book Africa's Silk Road by Broadman H. Broadman H (2007) This book analyses the economic perspective through by the Silk Road to India and China. The book also discusses the historical context, patterns of trade flows, country policies and how companies are affected by these policies. However, the discussion presented in the book is limited to India and China. It does not question the interaction of trade with other significant phenomena such as logistics and energy.

The other book is on "Life on the Silk Road" Whitfield (1999). These book based on real stories of the Silk Road. It is includes historical maps, stories and table of rulers. The report is published by Purtas (2011) in Ankara; it is citing The Modern Silk Road Project between Middle Asia and South Asia is investigating on Afghanistan, Pakistan and India's relationships of the Middle Asia Turks Republics. On the other hand, the book which is called Resilkroad was edited by Bulut (2014) in Istanbul; the book is includes 22 publications from different Authors. Book's index is A Note On The Formation Of The "Silk Road" As Long Distance

Exchange Network, The Great Silk Exchange: How The World Was Connected And Developed, Silk Road – A Glance At Archaic Globalization, Rethinking The Region Of Peace, Collaboration And Trade Between The East And The West, Some Aspects Of Silk Road As A Paradigm For International Relations: Modern Politics And Multiculturalism, Silk Road Of The Century: A Research On Determining The Regional Market Potential Of The Transportation Corridor Tracece, The Ottomans And Long-Distance Trade In Early Modern World, Mawlana Jalaluddin Rumi And The Silk Road, Ethnical Variations In Personal Concern For Environment : A Case Study Along The Silk Road In Iran, The Approach Of Westerns Toward The Silk Road, The Famous Southern End Of The Silk Road : Zanzibar’s Role In Shaping The World Religions’ Map In The Region, Messages In Silk: Ornaments And Silken Dress Codes In 14 th Century Art In Serbia, Possibilities Of Application Of Robinson Crusoe Example And The Theory Of Closed Systems In The Theory Of Economic Development In Countries In Transition Along The Silk Road, Case Of Serbia, Energy Sufficiency And Environmental Sustainability, The Western Balkans Geopolitics And Russian Energy Politics, Turkish Foreign Policy Between Euro skepticism And Eurasian Alternatives, Economic And Commercial Relations Between Turkey And Fast Growing Economics Of East Asia, Economic Relation Between Turkey And Macedonia, Impact Of Taksim Gezi Park Events On The Perceptions Of People In The Middle East And The Balkans, The Political Economy Of Intra-Kashmir Trade, UNESCO World Heritage Sites And The Integration Of Western Balkan Economies In Global Economic Flows.

As it is mentioned above there is a second book is edited by Bulut (2014) in Istanbul. The book is called ‘‘Medeniyetler Güzergahı İpek Yolunun Yenide Doğuşu’’. This book contains 20 publications from different Authors. Book’s index is Eurasian Peace and An Approach to the Ihya Welfare axis of the Silk Road: Silk Road Association, Ibn al-Jazari the Silk Road Intellectual he left the Geography on the Silk Road, her Related Building the Silk Road and Iran Geography , a Culture Path as Silk Road moral themes in the stories, xv.yy financialization Florence and the crisis Date North Anatolian route of the Silk Road, with Varying Trade routes with geographic discoveries and strategies it has developed in this situation Ottoman Interior of the Ottoman Normative Economic Structure and External Causes of Energy in the Ottoman Empire, the Great Silk Road and inter-civilization dialogue,

the Feedback Silk Road: Modernity, the Silk Road again: the Times Merchandise, historic Silk Road route Black Sea Logistics Center Way to Becoming Basin, London , East to West Energy Road And Turkey's strategic importance, the European Union and SFS (Shanghai Cooperation Organization) axis in Turkey's Economic Politics, Foreign Direct Investment And Economic Security, TRACECA Investment and Impact on Development, Turkey and Central Asia Technological Between Turkish Republic Science and New Trends in Telecommunication Field and Partner Agreements Key Reflections and Turkish newspaper in 2011 presidential elections Kyrgyzstan.

There are also a number of studies investigating particular medical issues within the Silk Road. The example of this study is according to Kutzin, Joseph, et al. (2009), Behçet's disease (BD), also known as the Silk Road disease, is a blinding inflammatory disorder of young adults found predominantly between the Mediterranean basin and the Orient, and is strongly associated with the major histocompatibility complex (MHC) antigen HLA-B51. In this article they review the history of Behçet's disease since its first description by Hippocrates, the development of the trading routes collectively known as the Silk Road and the effect of population movement on the distribution of HLA-B51. The other study is about

CHAPTER II

Trade On the Silk Road

Trade was not the main purpose of the Silk Road, more a system of pathways than a road, in its golden day. Instead, the Silk Road changed the past, mostly because the people who managed to tour along part or all of the Silk Road planted their cultures like seeds of exotic class carried to far-away lands. Nowadays, circulation is provided by world trade. The Table 2.1 is prepared in order to see these days that Silk Road's seller, buyer and what type of goods exist on Silk Road. First of all Author mentions about goods and materials at this route. Observations of Table 2.1, there are too many items on the Silk Road. Commonly on these days, countries are buying and selling leather items. Moreover, transport equipment, chemical production, fresh foods, textiles, basic manufacturers, processed foods, natural resources (minerals), clothing, information technology, consumable electronics and unclassified products are following to leather products. Examining of leather and leather products in this route, it can be said, China is the world leader of leather export. It has 82.694 billion dollar export value. In addition Russian Federation is 5th at leather import. Leather and leather products volume are about 240 billion dollar in the world. Istanbul Chamber of Industry leather and leather products report (2015)

The Table 2.1 is prepared in order to analyze that table to understand current actions on the road. This analyze will give a direction for potential trade movements. In addition, this analyze will give present projects for investors. For instance, Russian sector's trade performance in 2014, minerals is creating 89.1 % exporting sectoral diversification of Russian Federation in products. Furthermore, the Russian Government's importing sectoral diversification, it can be seen that, 10.8 % non-electronic machinery, 34.2 % transport equipment, 23.9 % chemicals and 19.6 % fresh foods International Trade Center (2014). Basically, even if one example of the Silk Road countries trade actions, it shows us that countries in a serious trade actions between us. As result these are the more frequent commodity on the road.

Therefore investors can do more investment or they can take an attention which commodity of the more valuable as dollar. In addition, there are monopolistic positions on Silk Road. Given the Table 2.1 it can be seen that, there are countries which have no trade action on Silk Road. For instance, although the Silk Road countries are in buy and sell action between them, Armenia was not supplier position on the Silk Road, but just Armenia buys transport equipment from Georgia. The reason of this might be lack of logistics infrastructure, political disputes, and lack of raw material. There can be lots of problem to do trade between producer and consumer countries. One of the most important obstacles is International Disputes. For instance, Iraq's lack of a naval boundary with Iran prompts authority disputes past the mouth of the Shatt al Arab in Persian bay; Turkey has spoken concern over the independent status of Kurds in Iraq Central Intelligence Agency (2016). On the other hand, it can be seen easily form Table 2.1, there is no import on Silk Road by Turkmenistan, Uzbekistan, Iran, Iraq, Jordan, Kazakhstan, Kyrgyzstan, Lebanon, Mongolia, Nepal and Pakistan. Some countries' distances are far away each other, some countries might have disputes and logistics infrastructure can be reason that non importer countries on the Silk Road.

Another issue that attracts attention, it can be seen from Table 2.1; Silk Road's Countries are selling and buying their items to neighbors. On the foreign trade policy, especially to be regional permanently, countries should develop trading for neighboring countries. Today, the overall situation of the world, regional integration is increasing in that result, trade with neighbors are rapidly increasing, and countries started to follow policy in that direction. Regional trading has important role to develop big countries for trade volumes. Investigating of countries buys and sells relations with neighboring countries; the trade percentage in the European Union is 70 %, and Asian countries and North America region trade movement about 40 % Trade statistics for international business development (2015).

According to International Union of Geodesy and Geophysics' there are almost 200 developed countries in the World and majority their trade movement in region. Turkey which is located on the historical Silk Road route, it has not enough trade movement between Silk Road' countries which are country demand is above 250 billion dollar in year General Assembly in Prague (2015). According to Figure 2.1, Turkey is exporting primarily leather with Iraq and Russian Federation. Lastly, Turkey should increase the number of trade with neighbor countries because, during the considering of relationships, logistics structure and customer, they seem too important factors are increasing border or neighbors trading. On the other hand, according to trading data from trade map; some of Silk Road countries' trade, energy resources are on the very important role but it will be discussed on in Energy on Silk Road part.

2.1 A Project for Silk Road

Nowadays, there are a few investments to the Modern Silk Road but there is a project for Silk Road which is called as Silk Road Belt Project. This project is significant for China. They are investing to this project's trade infrastructure because they have enormous economic power and they do not want to lose its historical position on the Silk Road. Namely, China was leading to this historical route therefore they are thinking about politically, strategically and economically to be leader again. For these reason, China's Belt Project should be taken into account.

In this thesis, the Silk Road market should be considered with Asia, Africa and European countries together. The three continent populations are about 6.5 billion. Asia has 4.426.377.330, Africa has 1.194.637.434 and Europe has 743.393.140 World Population Review (2016), but still they did not completely integrate each other. The main reasons are historical and social diversity, but the most important reason could be political. China is the biggest Silk Road actor as it is mentioned in the past because they were leader and founder this route. China exports are increasing day by day; hereby China's neighbors' trade movement will be boosted because of rising regional demand. Despite everything, a major part of the world manufacture is carried out in these three old continents. In proportion to population size, wherein a significant portion of the consumption. Namely trade has to be increased by these countries by the economic projects Particularly China tries to use Silk Road with the Belt and Road project. Ernst and Young China (2015)

The Belt and Road plan refers to the Silk Road Economic Belt and Twenty First Century Maritime Silk Road, this strategy opened by the Chinese government. The plan has been designed to get better the orderly free of charge flow of financial factors and the efficient share of resources. In addition One Belt One Road" is a Chinese project to connect more than 60 countries with physical, commercial, cultural, and other links. These countries have a united population on the order of 4.4 billion. The "One Belt" refers to the "Silk Road Economic Belt," a remaking of the elderly land-based Silk Road buy and sells routes from China through Central Asia and on to the Middle East and Europe. This is also called the "Modern Silk Road. The One Belt is planned to connect China to Europe, the Middle East, Central

Asia, and South Asia and will engage survived and new rail lines, highways, and pipelines. The “One Road” refers to the “21st Century Maritime Silk Road” (also the other name is “Maritime Silk Road”). The One Road is planned to connect China with Southeast Asia, South Asia, Africa, the Middle East, and Europe. The main routes of the One Belt One Road project are designed to hook up with other passages previously planned or under the building it is also intended to additional market addition and creates a regional financial co-operation structure of advantage to all. The Belt and Road project intend to connect Asia, Europe and Africa the length of five routes. The Silk Road Economic Belt focuses on some routes. These are, The New Eurasia Land Bridge Economic Corridor, The China-Mongolia-Russia Economic Corridor, China-Central Asia-West Asia Economic Corridor, China-Indochina Peninsula Economic Corridor, China-Pakistan Economic Corridor and Bangladesh-China-India-Myanmar Economic Corridor.

The “One Belt, One Road” plan was designed in 2013, after this design, preparation of the Asian Infrastructure Investment Bank (AIIB) and Silk Road Infrastructure Fund was started in 2014. Finally, the leading task force was established and the vision and actions plan was unveiled in 2015. Recently, these countries supported this project; China, France, Belgium, Hungary (the first European country to sign this project), Brazil, Colombia, Peru and Chile (feasibility study on the construction of a railroad linking the Atlantic and Pacific Oceans; and China development), India, Russia and Pakistan. Considering the financial affairs of this project, The Asian Infrastructure Investment Bank, first planned by China in October 2013, is an expansion bank dedicated to loaning for projects concerning infrastructure. As of 2015, China declared that over one trillion Yuan (\$160 billion US) of infrastructure projects were in preparation for construction. In November 2014, Xi Jinping announced strategy to create a 40 billion USD development fund. Navigating the Belt and Road (2015)

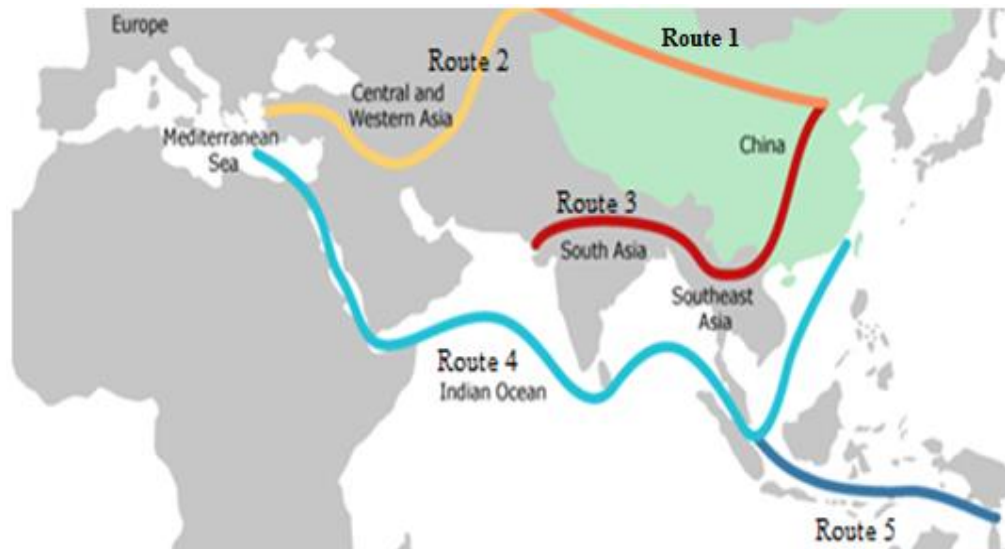


Figure 2.1 Five routes on Belt Project, 2015

On the other hand, there might be some of problems such as political and economical for countries in that project. These might be geopolitics and territorial disagreement, domestic political unsteadiness, religious fanaticism and terrorist threats, large changes in market conditions, different regulatory and cultural structures. For example, in the era of the Silk Road, Middle Asia and Afghanistan came to importance by facilitating international trade between China and the Mediterranean. Today, the fortunes of the area are still tied to international trends, but these are getting an increasingly negative turn. A deep economic crisis is fascinating the region. The reasons are varied: decreasing oil and gas prices, an economic slowdown in China, the falling Russian Ruble, and for Afghanistan even the retreat of NATO forces. Under such situation, households and national governments are scrambling to deal with, Aga Khan Foundation Canada (2016).

Alternatively, there are several factors positively affecting to neighborhood trading. These are political, cultural reasons and religion. For instance, during the Ramadan period of Muslims, there is date trading with Iran. They are exporting date to Turkey and Turkey is trading olive oil to Iran. Moreover, the example of political and economic strategies which is linked with trade, if the state is producing a product itself it does not allow to be taken from outside. To understand cultural differences on trade, generally Muslim countries do not prefer to trade with European countries. If some productions do not exist in its country, they may work with other cultures and countries. On the other hand Iran has a significant passing point for the Modern Silk Road and they have regime and war&peace problem. If there is trade or money, generally it is seen that, different language, culture, habits, religion and countries management regime have not a vital role because if countries wants to stay alive, they should produce, export and consume.

Finally, primary object should be increase number of neighbor trading, and on account of Silk Road trade will be active position and all chain of the Silk Road will be affected positively, if every country does primary object. Secondly, international disputes should be solved especially; importer countries do not want problems with its exporter countries. Thirdly, as it mentioned before on neighborhood trading, culture and religion should be taken into account for political and economic strategies.

CHAPTER III

Logistics on Silk Road

The analysis in this chapter is based on Logistics Performance Index (LPI). Logistics Performance Index is an interactive benchmarking tool produced to assist countries recognizes the challenge and opportunities they face in their performance on trade logistics and what they may do to improve their performance.

A production services and flow of information should be planned effectively in both directions within the supply chain up to the point of delivery from the point of sending the right move applied. Also it should be carried, storage, protected and under control. Direct transport costs are between 30-40% of all logistics costs and logistics costs are typically 10-30% of final product costs. United Nations Economic Commission for Europe (2009) Production time is divided different geography therefore, the effects of logistics cost on competition increased. For this reason, diversification of transportation and quality of infrastructure can effect to competition, but Middle Asian countries' logistics and transportation structures are not sufficient for the establish of Silk Road. After the Soviet Union, there was new beginning. Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan are developing countries. Some countries see that natural resources are a key for developing their countries. For example, Petroleum and petroleum goods of Azerbaijan and Kazakhstan, by turns 88% and 58% in 2010, but there was lack of infrastructure and undeveloped industry prevented to be global value chain integration for these countries on Silk Road. Countries on Silk Road should develop their infrastructure to enhance petroleum exporting. The other player in that region is Afghanistan. According to State Fragility Index, 2015, Afghanistan was not staying stable politically and economically because of terrorism and civil war. Three tables adapted for understanding Silk Road logistics. First one is logistics performance index of Silk Road; second one is infrastructure of Silk Road and distances table. According to logistics performance index in 2015, logistics performance index is made up of six main parts. This index uses six key scopes to benchmark countries' performance on the logistics issues. These six scopes are customs, infrastructure,

international shipments, logistics competence, tracking & tracing and timeliness. When they generate a score card, they are using some kind of indicators. They are effectiveness of the clearance process by boundary control agencies, quality of trade and transport related infrastructure, ease of arranging competitively priced shipments, capability and quality of logistics services, ability to track and trace consignments and timeliness of shipments in reaching destination within the scheduled time.

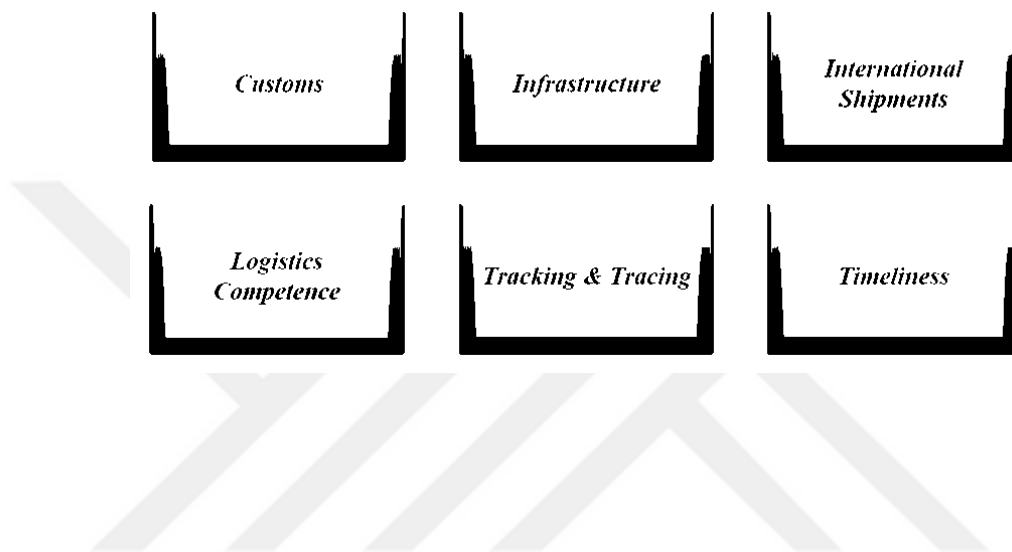


Figure 3.1 Logistics Performance Index Indicators, 2014 (Adapted by Author from World Bank)

THE SILK ROAD COUNTRIES TRANSPORTATIONS(2013)																						
	Afghanistan	Armenia	Azerbaijan	China	Georgia	India	Iran	Iraq	Jordan	Kazakhstan	Kyrgyzstan	Lebanon	Mongolia	Nepal	Pakistan	Russian Federation	Syria Arab Republic	Tajikistan	Turkey	Turkmenistan	Uzbekistan	Total
Number of Airports	52	11	37	507	22	346	319	102	18	96	28	8	44	47	151	1,218	90	24	98	26	53	3,297
Roadways	42,150	7,792	52,942	4,106,387	19,109	4,689,842	198,866	59,623	7,203	97,418	34,000	6,970	49,249	10,844	262,256	1,283,387	69,873	27,767	385,754	58,592	86,496	11,556,520
Waterways (navigable waterways) Waterways compares the total length of navigable rivers, canals, and other inland bodies of water.	1,200			110,000		14,500	850	5,279		4,000	600		580			102,000	900	200	1,200	1,300	1,100	243,709
Ports and Terminals																						
(major seaport)			1	7	2	7	3		1	2		2			2	5	3		9	1		45
(river port)	2			1				2		3						1					1	10
(lake port)											1											1
(oil terminal)																1						1
(container port)				7		2	1					1			1	1			2			15
(LNG terminal)				7		3									1	1			2			14
Railways	780	2,068	2,068	191,270	1,363	68,525	8,483,50	2,272	570	14,184	470	401	1,815	53	7,789	87,157	2,652	680	12,008	2,980	3,645	408,566
Pipelines																						
(condensate)			89	9		9	7			658						122						894
(condensate/gas)							973															973
(gas)	466	2,233	3,890	48,502	1,596	13,581	20,794	2,455	473	12,442	480	88			12,646	163,872	3,170	549	12,603	7,500	10,401	317,731
(liquid petroleum gas)						2,654	570	913								1,378						4,915
(oil)			2,446	23,072	1,175	8,943	8,625	5,432	49	11,313	16				2,576	80,820	2,029	38	3,038	1,501	944	152,017
(oil/gas/water)				31		20										40						91
(refined products)				15,298		11,069	7,957	1,657		1,095					1,087	13,658						51,781
(water)				9						1,465						23						1497

Table 3.1 the Silk Road Countries Transportations, (adapted by Author from Central Intelligent Agency)

To understand logistics infrastructure of Silk Road, data is collected to analyze Silk Road countries' multimodal transporting and logistics infrastructure. These data's gives to us, the number of airports, major, river, lake and container ports, oil terminals and liquefied natural gas terminal (LNG), kilometers of waterways, roadways, railways and according to content of pipelines networks. Infrastructure of Silk Road' countries, some countries aim to different types of transporting modes. First of all, Russia aims to use more aircraft for transporting because its investment of roadways seems low level; on the other hand, having a huge area can be reason for this. When it is compared Russia with China, Russia has around 1.3 million km roadways network but China has 4.5 million km roadways. Considering about areas, China has about 9.5 million kilometer square and Russia has about 17 million km square. Comparing of the Russian area and number of airports China, Russia has airports two times of China, it seems direct proportion but, roadways of these countries, there is a inverse proportion because, China's roadways network four times of Russia although Russia has 17 million area. In order to finalize this argument, one can look at importance of the roadways if it is checked out logistics performance index because; Russia has low level ranked on Silk Road Logistics.

As it is mentioned before, logistics performance of Russia should be developed because, they have good level of economy and energy resources. Therefore, transmit and transport might be more valuable in next year's for Russia. One of logistics infrastructure component is multimodal shipment, and it provides advantage to countries on the logistics competition for that region. Consequently seven countries have no seaport. These are; Armenia, Azerbaijan, Georgia, Jordan, Lebanon, Nepal and Pakistan. Geographically, they do not have any seaport. It can effect economic and logistics competition of Silk Road countries, also there will be negative effect for all Silk Road chain. Analyzing of the general logistics infrastructure of Silk Road, totally they have 3.297 airports, 11.5 million km road ways, 243.709 navigable waterways, 45 major seaport, 10 river port, 1 lake port, 1 oil terminal, 15 container ports, 14 liquefied natural gas terminals (LNG), 408.566 railways, 894 km condensate pipelines, 973 condensate/gas pipelines, 317.731 km gas pipelines, 4.915 liquid petroleum gas pipelines, 152.017 km , 91 km oil/gas/water pipelines, 51781 refined productions pipelines and 1497 water

pipelines. The Silk Road countries seem to have a good potential and enough feasibility for logistics activities, but physical infrastructures is not enough for the all logistics chain. It should be considered about customs, other infrastructure components, international shipments, tracking and tracing and timeliness at Silk Road countries.

Logistics Performance Index (2014)								
Max 5 pts	Customs	Infrastructure	International Shipments	Logistics Competence	Tracking & Tracing	Timeliness	LPI Score	LPI Rank
Alghanistan	2,16	1,82	1,99	2,12	1,85	2,48	2,07	158
Armenia	2,62	2,38	2,75	2,75	2,5	3	2,67	92
Azerbaijan	2,57	2,71	2,57	2,14	2,14	2,57	2,45	125
China	3,21	3,67	3,5	3,46	3,5	3,87	3,53	28
Georgia	2,21	2,42	2,32	2,44	2,59	3,09	2,51	116
India	2,72	2,88	3,2	3,03	3,11	3,51	3,08	54
Iran	2,19	2,42	2,49	2,66	2,49	2,66	2,49	112
Iraq	1,98	2,18	2,31	2,15	2,31	2,85	2,3	141
Jordan	2,6	2,59	2,96	2,94	2,67	3,46	2,87	68
Kazakhstan	2,33	2,38	2,68	2,72	2,83	3,24	2,7	88
Kyrgyzstan	2,03	2,05	2,43	2,13	2,2	2,36	2,21	149
Lebanon	2,29	2,53	2,53	2,89	3,22	2,89	2,73	85
Mongolia	2,2	2,29	2,62	2,33	2,13	2,51	2,26	135
Nepal	2,31	2,26	2,64	2,5	2,72	3,06	2,59	105
Pakistan	2,84	2,67	3,08	2,79	2,73	2,79	2,83	72
Russian Federation	2,2	2,59	2,64	2,74	2,85	3,14	2,69	90
Syrian Arab Republic	2,07	2,08	2,15	1,82	1,9	2,53	2,09	155
Tajikistan	2,35	2,36	2,73	2,47	2,47	2,74	2,53	114
Turkey	3,23	3,53	3,18	3,64	3,77	3,68	3,5	30
Turkmenistan	2,31	2,06	2,56	2,07	2,32	2,45	2,3	140
Uzbekistan	1,8	2,01	2,23	2,37	2,87	3,08	2,39	129
Average	2,282727273	2,358181818	2,525454545	2,461818182	2,507727273	2,921428571	2,515238095	2,510367965

Table 3.2 Logistics Performance Index, 2014 (adapted by Author from World Bank, 2016)

There are five main components to generate and measure logistics performance index; customs, infrastructure, international shipments, tracking and tracing and timeliness at Silk Road countries. First of all, customs are important as political border because they are economical borders of the governments. Also custom gates are an extremely significant tool in balancing their economies against external. Logistics performance customs points are determined according to efficiency of the clearance process such as, speed, simplicity and predictability of formalities by border control agencies and including customs. Investigating in terms of the regional custom criterion of logistics performance index, Turkey has 3.23 points and, it is the leader of customs on logistics performance index. Immediately after China has 3.21 points and, it takes second places in that index. On the other hand, Uzbekistan has

1.8 points and, it is the lowest point of customs in LPI. It can be made interpretation about China and Turkey's high point of customs if it is compared with Uzbek government attitudes.

United States Trade Representative (2014, p.1) In 2013, exporters to Uzbekistan faced burdensome new documentation requirements with respect to customs valuation. New import measures were implemented that required all imports to be accompanied by an official export customs declaration for the purposes of customs valuation. Such a document is not issued for exports from the United States, nor do many other countries issue it to their exporters. Although the Uzbek Council of Ministers' passed a resolution on this issue allowing for use of different types of documentation to verify value, No. 139 of May 22, 2013, companies are still periodically asked to provide export declarations. Companies report that if they do not present the documentation, they are assessed an automatic surcharge that assumes a higher value of the good than the value that is declared, resulting in higher duties

For that reason, they have the lowest point of customs. Documentary regulatory at the customs is significant for exporters. Uzbek Governments avoid behavior that makes it difficult to trade it is directly affect its own trade actions and indirectly it is affected to Silk Road. Considering of Custom's leaders of the Silk Road, it can be seen that two reasons to be good customs. China is the world trade leader and Turkey has the significant geopolitics position to develop their customs. China is almost trading with every country, so customs procedures should be done smoothly and quickly and Turkey ought to be more elastic on customs, because as it is known, Turkey is a bridge between Asia and Europe. The average of custom point is in region 2.28. Customs have vital role for commercial dialogues for Silk Road countries because as it is mentioned before at the part of trade, to increase number of neighbor trading, countries which are located on this route should regulate and develop customs procedures between them.

Logistics infrastructure is other key dimension. As with the customs, China, and Turkey ranks first in the logistics infrastructure. Turkey has 3.53 and China has 3.67 infrastructure points. Generally China is using waterways for trading, there can be low cost but timeliness can be problem however they have 3.53 point on timeliness issues, namely they solved these problems. As it is mentioned before, Turkey has significant geopolitical position therefore Turkey can be a logistics and transit hub. On the other hand Afghanistan has 1.82 point and, it is the lowest infrastructure point. The reason can be war, political disputes and terrorism. If there is problem at logistics flow in Turkey, it will be vital problem for us because; Turkey has high amount of income from logistics activities. Turkey has lots of industries sector such as textile etc. For example if Turkey has problem about textile sector such as decreasing productivity, there is no afford to compensate them therefore, logistics infrastructure and activities should be go on. Commerce transactions on Silk Road countries are related to high levels of the logistics activities. Countries should have successful logistics infrastructure to survive at trade on Silk Road. Basically, China has 3, 67 infrastructure points, they are near to full points of Logistics Performance Index. It can be beneficial for all Silk Road but, it is not enough to be successful for logistics. Even if China has good point at logistics infrastructure, other countries should increase its own points, because trade movement of the Silk Road does not use only China's infrastructure. For example, if trade is done between China and Jordan, it should be thought about transit and import countries' logistics infrastructure and disputes during the transportation way. Also it should be thought about Jordan's 2.6 infrastructure rates and political dispute as 2004 Agreement settles border dispute with Syria pending demarcation. Finally, customs should be suitable according to international norms, for instance documents and custom process. Secondly, logistics infrastructure is the most important topic for logistics. Number of airports, seaports, railways, roadways and pipelines should be increased by think about geopolitics locations. Lastly, they need fast bureaucratic orders, automation should be there, high technology needed, trained worker, strong infrastructure, and seaports, railway, and transit centers.

How far is it? (Calculated by <http://www.timeanddate.com/>)

From/To (Xin) (Based on Capital Cities)	Alghanistan	Armenia	Azerbaijan	China	Georgia	India	Iran	Iraq	Jordan	Kazakhstan	Kyrgistan	Lebanon	Mongolia	Nepal	Pakistan	Russian Federation	Syria Arab Republic	Tajikistan	Turkey	Turkmenistan	Uzbekistan
Alghanistan	2656	2379	4184	2270	1006	1621	2286	3098	1177	1038	3090	2390	1713	371	3369	3024	450	3255	1039	752	
Armenia	2656	453	5952	170	3346	785	762	1195	2701	2514	1063	3810	3977	2630	1804	1039	2092	995	1225	2088	
Azerbaijan	2379	453	5529	448	2817	538	920	1559	2263	2074	1461	3403	3555	2187	1930	1423	1639	1445	787	1640	
China	4184	5952	5529	5861	3784	5613	6305	7068	3382	3475	6989	1168	3158	3888	6946	4063	6849	4944	3940	3940	
Georgia	2270	170	448	5861	3364	880	931	1339	2448	1600	1192	4838	3978	2631	1648	1176	2066	1026	1234	2037	
India	1006	3346	2817	3784	3264	2548	3163	3966	1625	1600	3900	2485	802	690	4346	3917	1833	4226	2030	1383	
Iran	1621	785	538	5613	880	2548	695	1492	3026	2832	1470	3560	3315	1991	2464	1405	1573	1697	669	1674	
Iraq	2286	762	920	6305	931	3163	812	3026	812	3026	832	4234	3949	2653	2549	755	2266	1267	1363	2365	
Jordan	3098	1195	1559	7068	1339	3966	1492	3787	3787	3594	219	4960	4757	3464	2648	177	3061	926	2151	3136	
Kazakhstan	1177	2701	2263	3382	2630	1625	3026	3787	3787	194	194	3715	1883	1111	3112	3669	859	3650	1671	665	
Kyrgistan	1038	2514	2074	3475	2448	1600	2143	2832	3594	194	3524	1447	1941	1025	2996	3477	684	3470	1477	472	
Lebanon	3090	1063	6989	1192	3990	1470	832	219	3715	3524	4862	4772	4772	3460	2435	87	3021	709	2110	3074	
Mongolia	2390	3810	1168	4838	2485	3560	4234	4960	1261	1447	4862	2318	2318	2218	3717	4826	2119	4685	2906	1914	
Nepal	1713	3977	3535	3978	802	3315	3949	4757	1883	1941	4772	2318	2318	1348	4895	4700	1953	4968	2752	2102	
Pakistan	371	2630	2187	2631	690	1991	2653	3464	1111	1025	3460	2218	1448	3656	392	663	3022	3622	1405	907	
Russian Federation	3369	1804	1930	1648	4346	2464	2549	2648	3112	2996	2435	3717	4895	3656	2994	2473	2473	1795	2515	2798	
Syria Arab Republic	3024	1039	6946	1176	3917	1405	755	177	3669	3477	87	4826	4700	4700	2473	2473	2963	775	2052	3024	
Tajikistan	450	2092	1639	2066	1353	1573	2266	3061	859	684	3021	2119	1953	663	2994	2963	3084	3084	912	307	
Turkey	3255	995	1445	1026	4226	1697	1267	926	3650	3470	709	4685	4968	3622	1795	775	3084	3084	2217	3063	
Turkmenistan	1039	1225	787	1234	2030	669	1363	2151	1671	1477	2110	2906	2752	1405	2515	2652	912	2217	1006	1006	
Uzbekistan	752	2088	1640	2037	1583	1674	2365	3136	665	472	3074	1914	2102	907	2798	3024	307	3063	1006	1006	

Table 3.3 Silk Road countries distances, 2015 (Adapted by Author from [timeanddate.com](http://www.timeanddate.com/))

When trade and transportation are considered, distances have extremely role in this route considering by logistics performance index key points. Long distances always have more risk and cost especially, considering for roadways. As ancient times, nowadays following the historical route is risky and costly with roadways. Even if just follow this route, from Jordan to China; you ought to go about 7068 km. It is the furthest roadways distance on Silk Road. Jordan has 18 and China 507 airports therefore they seem to have enough infrastructures. For that reason, Air cargo should be selected for long distances to carry goods or people. It will reduce level of risk, costs and time. Priority should be increase the number of neighborhood trade because it has advantage to countries such as low transporting, risk and time. On the other hand, Turkey wants to investment and generating project for Silk Road. Because, it can be seen that, there are so many government and politicians' projects for Silk Road, for the reason that, Ankara tried to build effective and safe railway and roadways between middle Asia and Caucasus from since 1990.

To achieve a successful Silk Road operation, all countries that on this road, they should contribute to re-build up silk road. To sum up, Countries on the route of Silk Roadways, they should do benchmarking to its logistics activities to improve and develop them, but while they are doing that, they should care about state fragility index. This index outputs are important for importer and exporter countries relationships. In addition, planting logistics hubs on the Silk Road route might be important. Modern Silk Road project will open new trade channel, therefore there will be new economic centers. Some Silk Road countries are located in middle Asia; Afghanistan, Azerbaijan and Turkmenistan are important points of Silk Road. These countries should be turned into logistics hub that gives combined transport and economic investment areas. For this reason, Silk Road is practical solving to come up economic potential and integration of these economic systems.

CHAPTER IV

Energy on the Silk Road

The analysis in this chapter is based on the energy trilemma index. General energy issues regarding the Silk Road it starts by analysis. In this chapter there will be discussing of production level of energy, proven reserves, political tool by countries and strategies. Also economic and political issues will be examining between political disputes, energy reserves and productions. In addition, this chapter will be benefited from energy trilemma index. Today, energy is important for all countries because financial growth extremely depends on the availability of energy sources. The quick population increase and the changed geopolitics in the World lead to challenges and threats to supply in energy sector International Energy Agency (2007). The other important issue is energy security. The concept of "Energy Security" started finding its place in various governments' agendas after late 1990s. 9/11 attacks, USA's Afghanistan initiative and Iraq war ignited the interest in energy security. However, energy security is no longer related to just international traditional threats and prices.

Terrorism threat, impotence of exporter countries, nationalist reactions formed in producer countries, fears against fluctuation in demands, geopolitical opinion conflicts and needed energy for countries to economically expand, and broadened the extent of the concept. Amongst those, terrorism became the most important threat under energy security after ninth September attacks. Biresselioğlu (2012). Energy is the most important need for all life. Human body needs to energy for living. Everything was linked by energy to survive. Basically, it can be explained, energy is an ability to do something. As human body living, countries need energy to survive, produce and develop. Countries have two ways to get energy.

First of all , they should has energy resources to extract and use, secondly if you have no resources and technology for extracting as well as producing, countries should provide energy from other countries by pipeline, tracks, ships or kind of lines. If there is another example about importance of energy, easily it can be said that the main reasons for the outbreak of wars. When energy issues are analyzed, it can be benefited from some of sub-topics. These are energy security, sustainability, supply modeling, logistics, technologic management, energy and environmental politics analysis, econometric analysis, energy and environmental law and financial issues. If it is considered about energy resources on the world, the many accessible energy sources can be classified in different ways, these are called as non-renewable, renewable and secondary energy sources.

Primary Energy Consumption by Source and Sector, 2014
(Quadrillion Btu)

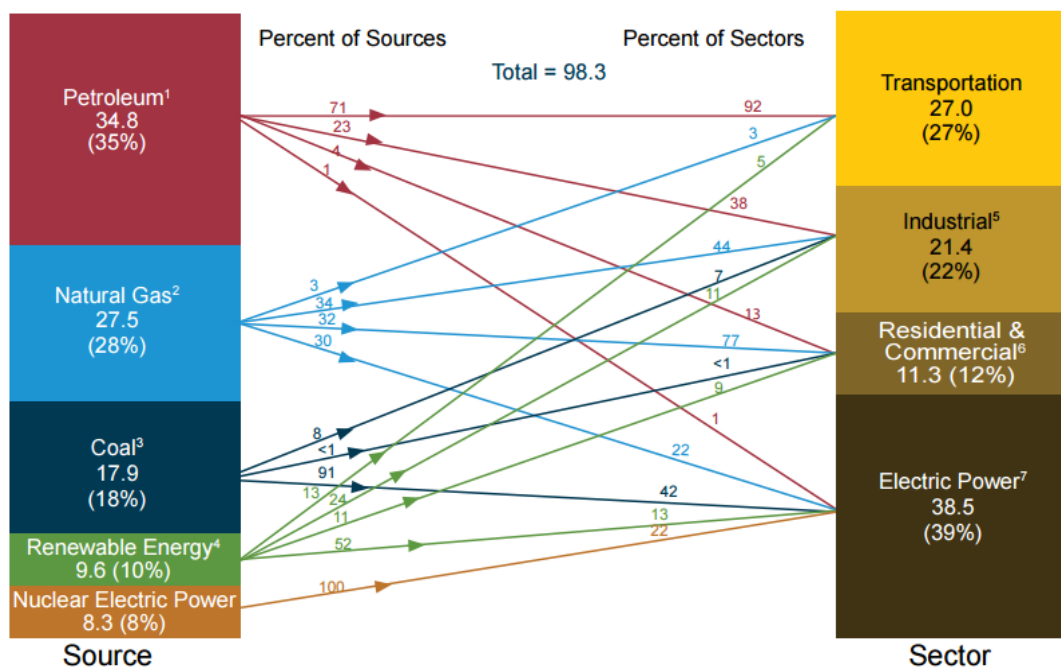


Figure 4.1 Primary Energy Consumption by Source and Sector (U.S Energy Information Administrations, 2014)

To better understand importance of energy, firstly it is needed to look at the energy source according to the total world sectoral distribution, transportation sector are using 92% petroleum, 3% natural gas and 5% renewable energy. Industrial sector are using 38% petroleum, 44% natural gas, 7% coal and 11% renewable energy. In residential & commercial using, it uses 13% petroleum, 77% natural gas, 1% coal and 9% renewable energy. Lastly, electric power uses 1% petroleum, 22% natural gas, 42% coal, 13% renewable energy and 22 % nuclear power. Secondly, it should be considered according to total source distribution, petroleum separated four parts for using; 71% for transporting, 23 % industry, 4% residential & commercial and 1% electricity generating. If it is considered natural gas using percentages, 3% for transporting, 34% industries, 32% residential % commercial and 30% for electric producing. Coal is the main source for producing electricity. Using percentages of coal is %8 industries, 1% residential & commercial and 91% is used for producing electricity. When renewable source percentages are considered, it can be said that at this point, 13% for transporting, 24% industries, 11% residential & commercial using and 52% electricity producing. At the last of sources, it can be seen that Nuclear power. 100% it is using for producing electricity. Lastly, these data can provide information about Silk Road even if it refers to all over the world Primary energy consumption by source and sector.

Some of nonrenewable sources are separated equal some of imbalanced. The example of balanced nonrenewable source is coal which is almost located on the world. Even if countries have coal reserves, coal's quality can show us differentiation, as its calorific value. When energy sources of Silk Road's countries are observed, it can be seen that serious nonrenewable sources, especially in Russia, Azerbaijan, Iran and Iraq have natural gas and oil reserves in that region. If there is an example from Silk Road countries, Russia has 48.810. (Billion standard cubic meters) amount of natural gas reserves. If countries reserves in the region are compared, this huge amount of reserves provided to Russia is on monopolistic position on Silk Road. Given the Table 4.1 of Total nonrenewable proved reserves at Silk Road at 2014, it can be seen that some of the most important sources of electricity producing using nonrenewable by countries.

Total Non-Renewable Proved Reserves at Silk Road (at end 2014)

	Oil (thousand million barrels)	Gas (trillion cubic metres)	Coal (million tonnes)
Afghanistan	<i>null</i>	0,04955	31,3
Armenia	<i>null</i>	0,1566	77,3
Azerbaijan	7	1,166165471	<i>null</i>
China	18,5	3,459230661	114500
Georgia	0,035	0,0084949	95,4
India	5,7	1	288000
Iran	157,8000031	34,02000046	532
Iraq	150	3,587744951	<i>null</i>
Jordan	0,001	0,006031	<i>null</i>
Kazakhstan	30	1,506108642	33600
Kyrgyzstan	0,04	0,005663	385
Lebanon	<i>null</i>	<i>null</i>	<i>null</i>
Mongolia	14,28571429	<i>null</i>	1200
Nepal	<i>null</i>	<i>null</i>	0,474
Pakistan	0,7546	0,578743756	2070
Russian Federation	103,1638947	32,64375687	157010
Syrian Arab Republic	2,5	0,284999996	<i>null</i>
Tajikistan	0,012	0,005663	178
Turkey	0,296	0,006824	8702
Turkmenistan	0,600000024	17,47900009	<i>null</i>
Uzbekistan	0,593999982	1,085872889	1900
Total	491,282212	97,47744968	608281,474

Sources : Bp istatistical workbook 2015-World Energy Council-CIA The Fact Book

Table 4.1 Total non-renewable proved reserves at Silk Road, 2014

An analysis of the Silk Road natural reserves, it can be seen that there are many of nonrenewable reserved countries which exist on this Silk Road. As oil and natural gas reserves, Iran and Russia are dominating sector of oil and natural gas because, Considering of total among of Silk Road's oil reserves, they have half among of Silk Road's oil reserves. in addition, the Silk Road's countries has about 98 trillion cubic meter natural gas reserves, Russia and Iraq have about 67 trillion cubic meter. This value is equal to two-thirds of all Silk Road's natural gas reserves. Also in natural gas sector there is a third biggest actor in that region which is called Turkmenistan. It has about 17, 5 trillion cubic meter natural gas reserves to produce electricity by using natural gas power plants. Considering of the coal sector as it is mentioned before the beginning of energy chapter; it can be said that almost there are too many sources of coal at all over the world. This Table 4.1 shows us among of coal reserves of the Silk Road's countries. In that type of natural resource, it can be seen from Table 4.1, China, Russia and India's coal reserves equal about 75% of Silk Road's

countries' coal reserves. To be successful at energy issues on Silk Road, it should be benefited from other disciplines such as trade and logistics. Given the Table 4.1 of total nonrenewable proved reserves at Silk Road, just it can be seen that natural reserves at Silk Road's countries. These data gives us information about how much can they extract oil, natural gas and coal at Silk Road but also the Silk Road countries natural reserves of producing levels data and energy trilemma index should be considered to understand potential of the Silk Road's energy.



ENERGY TRILEMMA INDEX (2015)																					
	Afghanistan	Armenia	Azerbaijan	China	Georgia	India	Iran	Iraq	Jordan	Kazakhstan	Kyrgyzstan	Lebanon	Mongolia	Nepal	Pakistan	Russian Federation	Syrian Arab Republic	Tajikistan	Turkey	Turkmenistan	Uzbekistan
ENERGY PERFORMANCE																					
Energy Security		110	11	21	75	53	58	39	113	28	null	122	42	123	69	15	82	79	71	null	null
Energy Equity		71	67	79	70	105	28	42	60	48	null	123	94	117	105	37	83	106	73	null	null
Environmental Sustainability		82	74	129	43	122	124	115	90	118	null	91	127	38	73	108	114	48	79	null	null
CONTEXTUAL PERFORMANCE																					
Political Strength		58	92	84	52	104	118	127	76	94	null	102	71	117	121	96	130	122	70	null	null
Societal Strength		68	101	66	64	87	93	126	51	91	null	74	78	107	119	83	129	113	50	null	null
Economic Strength		109	89	11	108	69	123	130	119	97	null	100	67	17	127	50	128	121	71	null	null
INDEX RANK		95	55	74	64	107	91	93	97	77	null	128	94	103	108	49	123	101	76	null	null
BALANCE SCORE		CCD	ABC	ACD	BBC	BDD	EBD	BBD	BCD	ABD	null	CDD	BCD	BBD	BCD	ABD	CCD	BCD	CCC	null	null

Table 4.2 Energy Trilemma Index, 2015 (Adapted by Author from Energy Information Administration)

The energy trilemma index ranks countries in terms of their possible capability to provide sustainable energy policies through the three dimensions of the energy trilemma. The World Energy Council (2015) These three dimensions are energy security, energy equity, and environmental sustainability. These are called energy performance. Also there are three other dimensions which related with main dimension of energy trilemma, these are political strength, societal strength, and economic strength. This index gives ranks about countries perspectives of energy issues. Especially Russia and Azerbaijan are taking an attention on this road. Even if you have huge amount of natural resources, there will be sensitive points on energy issues. Producing level of natural resources, energy policy, energy security, energy sustainability and energy equity should be dealt with. Having natural resources is an advantage but if countries do not process these resources, it will not profitable. Analyzing of the main players in that region, Turkmenistan produces 239 thousand barrels of crude oil daily, Russian Federation produces 10838 thousand barrels of crude oil daily, Azerbaijan produces 848 thousand barrels of crude oil daily, Kazakhstan produces 1701 thousand barrels of crude oil daily, Iran 3614, Iraq 3285, China 4246 and India 895 thousand barrels of crude oil daily in 2014. Russian Federation has monopolistic position with 10838 thousand barrels of crude oil daily. Russia also has monopolistic position for natural gas producing. They produced 578.7 Billion cubic meters natural gas. On the other hand, China 134, Azerbaijan 16.9, Kazakhstan 19, 3, Turkmenistan 69.3, Uzbekistan 57.3, and Iran 172.6 produced Billion cubic meters natural gas. One of the most important other non-renewable resource is coal. As discussed in Chapter IV, coal separated around the world but among and quality can be changed. Analyzing of the producer countries of coal, it can be seen that China is the world leader of coal producing. They produced 3874 million tons in 2014. On the other hand, Kazakhstan 108, 7, Russian Federation 357, 6 and India produced 644 million tons. There are many countries which are energy supplier countries. Considering of the trade importance, logistics infrastructure and customs up to now, but one of the most important things is there are several countries are producer countries. Also they have huge among of reserves. It is the most important point; they are on the Silk Road region.

Top 5 Natural Gas Trade movements 2014 by pipeline Between Silk Road Countries (2014)							
To (Bcm)	From						Total imports
	Azerbaijan	Kazakhstan	Russian Federation	Turkmenistan	Uzbekistan	Iran	
Turkey	5,3	-	26,9	-	-	8,9	41,1
Kazakhstan	-	-	4,3	0,5	2,0	-	6,7
Russian Federation	0,2	10,9	-	9,0	4,1	-	24,2
Iran	0,3	-	-	6,5	-	-	6,9
China	-	0,4	-	25,5	2,4	-	28,3
Total exports	5,8	11,2	31,1	41,6	8,5	8,9	107,2

Table 4.3 Top 5 Natural Gas Trade movements, (Adapted by Author from B.P Statistical, 2014)

As it is seen in the Figure 3.4, there is an energy trade movement by pipelines. Basically, prediction can be done from this Table 4.3; Turkey is majority depending on energy supplier countries. When you consider energy issues, it is linked with trade and logistics disciplines, it cannot be even separated them. Also one of the most important disciplines is politics. Silk Road Countries should be examined politics and security options, therefore Author adapted The Silk Road State Fragility index in 2015 to understand condition of demographic pressures, refugees , group grievance, human flight, uneven development, poverty and economic decline, legitimacy of the state, public services, human rights, security apparatus, factionalized elites, and external intervention. The Silk Road was a multi cultural route, and today they became more varied structure. Having multi cultural structure brings several risks.

Fragile States Index 2015	Demographic Pressures	Refugees and IDPs	Group Grievance	Human Flight	Uneven Development	Poverty and Economic Decline	Legitimacy of the State	Public Services	Human Rights	Security Apparatus	Factionalized Elites	External Intervention	Total
Syria	8,1	10,0	10,0	7,4	7,0	7,5	9,9	8,2	10,0	10,0	9,9	9,9	107,9
Afghanistan	9,3	9,1	8,9	8,1	7,2	8,6	9,7	9,3	8,6	10,0	9,3	9,8	107,9
Iraq	8,2	8,9	10,0	8,1	7,8	6,9	9,2	7,5	8,9	10,0	9,6	9,4	104,5
Pakistan	9,0	8,9	10,0	7,0	7,3	7,7	8,6	7,9	8,4	9,6	9,2	9,3	102,9
Nepal	7,9	7,6	9,1	7,0	7,5	6,8	7,1	7,1	7,7	7,0	8,3	7,4	90,5
Lebanon	5,7	9,1	8,6	5,4	5,7	5,9	7,8	5,4	7,2	8,8	9,3	9,2	88,1
Iran	5,4	6,5	8,5	6,2	6,1	6,9	8,9	5,0	9,3	8,0	9,4	7,0	87,2
Uzbekistan	6,1	6,0	7,6	6,3	7,0	6,8	9,6	5,4	9,1	7,6	8,8	5,1	85,4
Tajikistan	7,8	4,8	7,3	6,3	5,6	7,4	9,1	5,9	7,6	6,8	8,4	6,4	83,4
Kyrgyz Republic	5,9	5,8	8,4	6,4	6,4	7,0	7,8	5,6	7,2	6,8	8,0	6,9	82,2
Russia	5,1	5,7	9,3	4,5	6,4	4,4	7,9	4,7	8,9	9,1	8,1	5,9	80,0
India	8,0	5,4	8,3	5,5	7,5	5,6	5,2	7,5	5,9	7,9	7,3	5,3	79,4
Georgia	3,9	7,4	7,8	5,4	5,9	5,8	8,8	4,8	5,8	7,3	9,1	7,3	79,3
Turkmenistan	5,7	3,9	7,1	5,1	6,9	5,0	9,7	6,1	8,8	6,8	7,8	4,6	77,5
Azerbaijan	5,1	7,6	6,4	4,3	5,9	4,1	8,6	5,4	8,4	6,7	7,9	6,9	77,3
Jordan	7,0	8,8	7,7	3,6	5,9	6,3	6,1	4,7	7,6	5,5	6,9	6,8	76,9
China	7,4	5,6	8,3	4,6	7,4	3,4	8,0	6,2	9,2	5,9	7,2	3,2	76,4
Turkey	5,5	7,5	9,0	3,7	6,2	5,0	6,3	4,9	6,4	7,7	7,3	5,0	74,5
Armenia	3,6	7,0	5,4	6,0	5,0	6,0	7,0	4,1	6,5	5,3	7,0	6,8	69,7
Kazakhstan	5,0	3,5	7,0	3,6	4,7	6,5	8,0	4,5	7,5	5,7	7,6	4,7	68,3
Mongolia	5,5	2,4	4,3	3,1	6,4	4,3	4,5	5,7	4,8	4,0	5,5	6,5	57,0

Table 4.4 State Fragility Index (Adapted by Author from OECD, 2015)

Analyzing of the Table 4.4, it can be seen the most dangerous zone on the Silk Road. Firstly, Syria, Afghanistan, Iraq, Pakistan and Nepal seem most risky. Taking an attention to Syria, refugees, group grievance, human rights and security apparatus are on the maximum risk level according to state fragility index in 2015. These data may affect all logistics activities, energy securities and trade movements of Silk Road. Considering of the maximum risk of total point is 120, and the countries which are located on the Silk Road, majority they are almost near to maximum point. In addition averaged Silk Road countries state fragility index score is 83.6

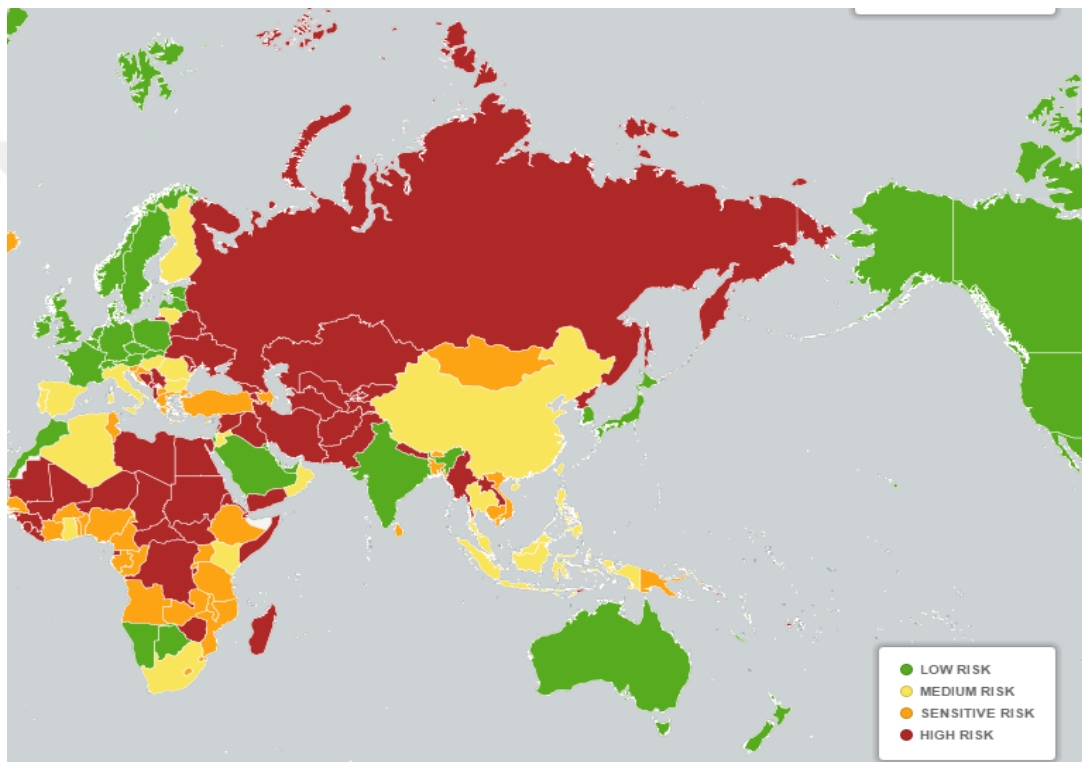


Figure 4.2 Maps, Country Risks (Euler Hermes Interactive, 2015)

Although there are too high risks, countries try to reconstruct the historical Silk Road route for their interests. Every country which is located in that region tries to develop its own policy and strategy. Considering of the Turkey, Turkey aims to ensure vulgarization of customs official procedure to rebuild the historical Silk Road as a link between European and Asian markets Also as it is mentioned before, Turkey should focus on transportation, safety, logistics and custom actions at borders.

” The main actors of Silk Road China; China has approach for Central Asia. It is based on China's own economic interests. They see to central Asia as a significant region, and this region may support its own economic growth, especially, China has demand for nonrenewable resource therefore they will investment Central Asia Infrastructure. On the other hand, China has high interest in developing countries with central Asian, including energy trade and transport ways. One of the majority significant energy deals between central Asia and china is the 1100 mile natural gas pipeline that transport Turkmenistan’s gas to china via Uzbekistan and Kazakhstan. The central Asia-China gas pipeline began operating in 2009 and they aimed to reach its full annual capacity of 40 billion cubic meters of natural gas by this year and also another important project for China Kazakhstan and China oil pipeline. It will be the first direct import pipeline and it will be pumping 14 million tons of oil per year.

Lastly, China has been pursuing enormous attention in developing multilateral organization with Middle Asian countries in many areas; consist of energy, trade and transportation routes. The other main actor is Russian Federation on the Silk Road route. They have no official strategic plan for Silk Road. Russia Federation policy for Central Asia, they do not focus on for new development and investment in infrastructure. Instead of investment to infrastructure, they prefer securing the Soviet legacy and sustaining in that region because, in order to go on benefits from its past investments. Considering of the European Union, their main target is bringing nonrenewable resources from supplier countries to their region. Namely, TRACECA (Transport Corridor Europe-Caucasus Asia) is a global transport plan linking the European Union and 14 member states. The other supplier country is Kazakhstan. They aim to join customs union. They want to enable its market by 153 million dollar, and also

they are planning to benefit from non-tariff trade opportunities, and simplification of Trans-border transportation and customs services. Also, Kazakhstan become more significant partner of Central Asia by holding the southern border of the customs union to central Asia Also, they are connecting the rest of central Asia to Russian Federation. Turkmenistan is another growing market in that region. The most significant part of the Turkmen economy is oil and natural gas. Turkmenistan is 6th in the world in natural gas reserves and 12th in gas manufacture. Turkmenistan has proven natural gas reserves about 17, 5 trillion cubic meter and oil reserves is about 600 million barrels. On the other hand, Turkmenistan has a number of important pipelines: the Central Asia-China Gas Pipeline 1.833 km, the Dauletabad–Sarakhs–Khangiran pipeline 182 km and the Korpeje-Kordkuy pipeline 200. Also there are two important planned gas pipelines and these are the Trans Caspian Gas Pipeline and the TAPI pipeline. This pipeline's transporting capacity is 33 BCM per year. It is an extremely significant project for regional cooperation, economic growth and integration among the countries of the New Silk Road.

Lastly, Turkmenistan is considering for transmitting its nonrenewable resources to Silk Road countries such as, Russia, Iran, China, Pakistan, India and Afghanistan. Analyzing of the Uzbekistan, they are the most crowded country in the middle Asia, 29.5 million people living there. They had 1.1 trillion cubic meters natural gas and 0, 6 thousand million barrels proven reserves. Uzbekistan can be one of major natural gas exporter between monopolies countries, but a lack of enough foreign investments and poor transportation infrastructure has prevented. If they improve their transmit and transport infrastructure, they can take a place between nonrenewable resource suppliers'' Fedorenko (2013)

CHAPTER V

Perspectives of Users: Qualitative Analysis

The interviews are done because of to obtain primary data from industry, also these answers are used to generate thesis' conclusion. During the interviews with industry, eleven questions are asked to understand and get primary data. These questions were about trade import and exports, the most trading items, custom and trade challenges, countries advantages and disadvantages, countries logistics infrastructures and challenges, energy perspective of the Modern Silk Road, final conclusion at three disciplines, investments of the Modern Silk Road, zoning and routes, Silk Road perception and firms' modern Silk Road plans. These questions were asked for mainly understand of the Modern Silk Road. The interview was done with totally six internationally companies in Izmir offices, and every interview took about one hour. People who attended the interview, they are commercial manager, sales representative, customer representative, manager and directors. Executives from each company contributed to interview. Also operating results and outcomes of the interviews are tabulated.

1) With which countries do you import and export?
2) What are the products that made the most trafficked?
3) When you trade, what difficulties did you encounter?
4) What are the advantages and disadvantages of countries that you work?
5) How are your import and export countries logistics infrastructure? What are the obstacles and problems in the field of logistics infrastructure?
6) What is the importance of the Silk Road by the energy perspective?
7) When you think about the Silk Road trade, logistics and energy, what comes to mind?
8) Do you know investments on the Silk Road?
9) Is there a special zoning or rotation about the Silk Road? (Such as Europe 1 Europe
10) Do you see the modern Silk Road holistic business area or as a route?
11) Do you have a specific plan or development on the Silk Road?

Table 5.1 - Interview Questions of the Modern Silk Road

Due to confidentiality, we refer to the companies as Company A, Company B...

Company A (fair services)
<p>A company the first member of Turkey in The Global Association of The Exhibition Industry (UFI), has been organizing in Izmir which has been organised first in 1936 and Specialized Fairs at Izmir which is totally 23.750 sqm covered area and has become into service in 2004 at Izmir. Also, A company is the only fair organizer of Turkey who has K-Q,TSE-ISO EN 9000 Quality System Certification.</p>
<p>1) Import and Export with North Africa, India, Pakistan and Turkic republics</p>
<p>2) Agriculture and Agro-based products, food products and technologies, textile, mining, machinery (from Europe)</p>
<p>3) Exchange rate should be fixed</p>
<p>4) Cultural differences between European and Eastern countries: sending bills with the European unsigned and unsealed mail. East business can not do without stamp and signature.</p>
<p>5) It should be divided at three part such as East West and North. Germany is the best customs in Western Europe. But customs operations in Italy lasts too long. In the north, the state because of bureaucracy, everything is slow. In the east, the lack of security and infrastructure.</p>
<p>6) All metals in the periodic table Kazakhstan is also available. Energy will continue to be managed by the big countries. Europe has a very high demand, renewable energy sources will not save them. Also, Silk Road countries have supplier role and Europe is consumer position.</p>
<p>7) These three disciplines should be considered together. Especially, logistics and trade can not be separated.</p>
<p>8) China tries to revive this historical place.</p>
<p>9) They have not decided route, they calculate according to condition of roads and countries peace&war situation.</p>
<p>10) There are already used certain ways, but the Silk Road is important position in the business.</p>
<p>11) They have no certain plan for the Modern Silk Road</p>
<p>BONUS: Today, the Silk Road region dominated by the major powers. Also there are culture and religion differences therefore the politics union is not possible but they can create joint benefits alliance.</p>

Table 5.2 - Company A – Interview Answers

Company B (international shipping and forwarding agency) and Company C (logistics firm)	
<p>Company B as a company specialises in offering end-to-end supply chain solutions, chain services combining intercontinental Air and Ocean freight. They have skill about ocean freight, air freight, warehousing & distribution and custom clearance. Also they have 3 office in India, two office in Turkey and one office at Japan.</p> <p>Company C has been established in 1976 In Izmir. Monthly they realized 2 vessels and handled min. 4000- 5000 tons of transit cargo to Iran and Iraq. As reefer cargo : they handled the total amount of 45.000 tons of chicken, meat and eggs to Iran and Iraq.As project cargo: only to Iraq we handled the transport ,storage of the cargo at 13 different locations and delivery of 60.000 tons cargo</p>	
1) Import and export to China and India	
2) Imports: industrial goods, raw materials, semi-finished goods, exports: marble, food products, fresh fruits and vegetables, chemical.	
3) Customs procedures and late answers from government	
4) Too much import custom procedures and late answers (about 3 days) from India, All correspondence is using by letter. Too much supplier and buyer in China. They answer quickly. Too much challenge and product quality is shifting.	
5) Pakistan and India have high among of local costs (handling, loading, unloading etc.), Too many services in this region. Low infrastructure and security especially in India, Pakistan and Afghanistan.	
6) Possibility of the low cost fuel in this region for transport.	
7) Job opportunities might be occur in these three sector. It may not use for logistics at the beginning of modern Silk Road. Some of the projects was not in demand. For example, as Balo project. The reason is unwilling to give up their habit of merchants. Low trade volume with Turkic Republics.	
8) -	
9) To go to Afghanistan, go through Iran, and the plate is replaced. Through Azerbaijan and Georgia to use the ferry in the Caspian Lake.	
10) If logistics potential is made , they can see it as a business. Speaking as a company engaged in import and export, yes possible but	
11) No, but they said that, we will start to think about Modern Silk Road	
BONUS: Turkic Republics better than Turkey's relationship with Iran . They see the behavior made it to the Turkish vehicle and drivers.	

Table 5.3 - Company B and C – Interview Answers

Company D (logistics&manufacturing)

Established as a subsidiary of X-Group in 1978, Company D has road fleet of self-owned 771 vehicles and 1100 certified suppliers; rail fleet of 238 swap bodies, 82 wagons and 180 containers; 1 bulk carrier of 30.000 DWT and the first Turkish flagged Cement carrier of 4.500 DWT with pneumatic discharging equipment; 1 helicopters; total logistics service area of 950,000 sqm; and 2400 employees. Company D integrates Domestic and International Land, Sea, Air and Rail Transportation, Bonded and Non-Bonded Warehouse Services as well as Home and Office Logistics services for leading enterprises of various industries, primarily including automotive, iron and steel, cement-construction, fuel oil, textile, retail, food and communication Company D's Headquarter is located in Istanbul; and it has District Offices in Central Anatolia, Aegean, Mediterranean, Black Sea regions and Gaziantep; subsidiaries in France, Russia, Romania and Morocco; liaison office in Germany; and a joint venture called in Spain.

1) There are 22 units manufacturing companies in the Y group. Company D was established to do logistics activities of these 22 company. They are working with France and Turkic Republics

2) Relevant steel bars for construction and highways, highway border, metal and derivatives

3) Products are sent through Iran because freight rates are lower, but there are security problems such as loading and unloading of productions cannot be seen.

4) They are not working with Syria, Iraq and Iran. Lack of security and customs infrastructure.

5) Almost, since 1950 Kyrgyzstan uses the same roadway infrastructure. Loads in Afghanistan, India and Pakistan can not go without armed forces supplied by the state. Russia, making lobbying to get the turkey out of the routes. Low logistics infrastructure.

6) There is a lot of energy suppliers and consumers. so there's a serious business. It is also economically important transit countries.

7) In winter, the Caspian sea would be problematic. If appropriate infrastructure, the ship owner will not work. If reduced waiting at customs gates of the country, China, begins to give importance to the east. Chinese people begin to trade with America and Arabia by sea,they may reduces the trade with Russia and Europe.

8) Marmaray

9) North Europe vie Russia, to Iran from Turkey's southeast, from Caspian to Kyrgyzstan and china.

10) For Inter modal transport, they need more investment in the Caspian Sea. If the railway is concerned, Russia corridor, going up to northern Europe. Also, This project will reduce the road freight in Europe, it kills agencies and Ro-Ro vessels in the Mediterranean.

11) They have no official project about Silk Road but Company D has an agreement with Spain to give direction to the eastern and western trade.

BONUS: In Turkic Republics, the unit price of a product, you can find 3 or 4 times the price to the buyer.

Table 5.4 - Company D – Interview Answers

Company E(import&export), Company F

Company E has established in Istanbul since 2011 and started its activities in the field of commercial, sport, tourism, culture and arts. This company in the field of commercial both focused on importing, Turkish company's products to the other countries and from middle-east to the Turkish.

Company F is working on Intelligent system for industrial units producing and importing food, medical and laboratory equipment. Also it is located Tehran in Iran

1) Iran, Turkey and France

2) Food, textiles, garments and medical equipment.

3) There are too many problems with health issues and customs documents. In customs, more important goods means more standards.

4) If you need a product in the country it is getting lighter duty. Countries culturally close to each other, giving concessions on customs. For example, in the Ramadan month Turkey and Iran. A product produced in our own country, these products do not come from outside.

5) Situation in the country, will directly affect the customs gate. therefore, it can be 2 times the calculated rate. Also they built up railway by %70, this railways go to Tajikistan, Turkmenistan and Mongolia.

6) Even if you have energy resources, energy issue is on the hand of bigger countries. They should be powerful on politics.

7) Only trade comes to mind. Trade is stronger this way. In fact, this road only opened for trade.

8) China has projects but they do not need this route, they are interesting with reputation. They are trying to say that the first job we started. Despite this, considering that Iran midpoint of the way. They say, we supported the establishment period and provided security.

9) Some routes is used via Turkey, some routes is used to Azerbaijan.

10) We see this as a real trade route. It is not a route for us, it is a trading network. Also, we see this road as a share of our family.

11) At seminars, Silk Road projects are spoken. They are waiting for political solutions between governments.

BONUS: There are petroleum resources in Turkey. But these resources are forbidden to extract until 2020. People do not know, but government knows that.

Table 5.5 - Company E and F – Interview Answers

To summarize up, these firms are mainly working with China, India, North Africa, Pakistan, Turkic Republics, France and Iran. Every country has strategic thinks out of the trade, logistics and energy issues. As it is seen, China says that they have important role because this route started from China and today, they are also investing to show that it belongs to them this way. On the other hand Iran says that, this route is its historical share.

The other countries on this route, they are high populated country especially China and India. Also, according to contributes, industrial goods, raw materials, semi-finished goods, marble, food products, fresh fruits and vegetables, chemical, agriculture and agro-based products, food products technologies, textile, mining, machinery, garments, medical equipment, relevant steel bars for construction and highways, highway border, metal and derivatives are being imported and exported on this route.

During the trade, there are many common problems between countries on this road. For example, custom procedures, late answers, variable exchange rate, custom documents, security problems, tracking and tracing problems especially countries such as Iran. These problems are affecting trade between countries negatively. Also as advantage and disadvantage, managers said that, India is not developed about answering and custom procedures. Alternatively China has too many suppliers and consumers and also they are quick respond.

There are cultural differences between Europe and Eastern countries: sending bills with the European unsigned and unsealed mail but East business cannot do without stamp and signature. On the other hand, countries which are located nearly between them, they may give concessions on customs, for example in Ramadan month Turkey and Iran. The other answers were about security. Some company does not prefer work with Syria, Iraq and Iran because of unstable custom rules and war and peace status.

If the Modern Silk Road is mentioned, countries which are located on this route should have strong logistics infrastructure. Despite that Pakistan and India have high among of local cost (handling, loading, unloading etc.) There are too many service in this region but as it can be seen that from state fragility index and logistics performance index, they have low infrastructure and security especially in India, Pakistan and Afghanistan. In addition, it can be said that, Germany is the best on customs in West Europe, too much state bureaucracy in the North and the lack of infrastructure and security in the East. Customs are one of the most important divisions in logistics infrastructure because if there are problems at custom gate because of procedures or war, companies may calculate two times route.

As an example incident on security and logistics infrastructure, some truck driver said that, Kyrgyzstan uses the same road infrastructure since 1950 and they go maximum 50 km/h because of roadway infrastructure. Also in India, Pakistan and Afghanistan, they cannot go without armed forces supplied by the state because of security. Additionally Russia tries to make lobbying to get the Turkey out of the routes because they want to block Turkey's transports traffics. It can be understand easily, having a perfect infrastructure is not enough completely, countries should be powerful in politics.

The outcomes of the interview also support the view point that the phenomena are linked each other such as politics, trade, economy, logistics and energy. Therefore companies' energy perceptions are significant. As it is mentioned before, even if you have energy resources, energy issue is on the hand of bigger countries therefore countries should have strong political strategies. Companies' answers generally like this; they aware of this there are lots of energy supplier and consumers, so there is a serious business in that region. Also it is economically important for being transit countries. Every country has different sources but Kazakhstan which has all metals and chemicals on periodic table. According to companies' answers, Europe has very high demand, renewable energy sources will not save them in following years therefore Silk Road countries are supplier for Europe. For this reason, they will need this region. The different perception which comes from answers, they are buying fuel at out of the custom gates, and fuel prices are about less than Turkey but if Silk Road can be more efficiently used, fuel prices would be even less then out of the gates prices. As it is mentioned before, what will

be there in following years if companies think about Silk Road by the light of these three disciplines?

Executive of one of the companies stated that job opportunities might occur in these three sectors, the other answers are also like these, at the beginning of this route, logistics activities may not use efficiently because too many logistics problems in this route. For example, in winter, Caspian Sea is a problem because of freezing it is affecting directly to logistics activities. On the other hand some countries have political problem with Armenia. In addition the war is affecting to custom gates etc. The other example is Balo project; is the railway transportation that is mostly based on projects or periodically performed contract logistics into a usual and constant service with international scheduled block trains. According to some companies the reason is unwilling to give up their habit of merchants and also there is low trade volume with Turkic Republics.

According to company E and F China has projects for Silk Road but they do not need this route, just they are interested only for reputation. Namely, they are trying to say that we founded this road. Iran, also perceives itself as protector and midpoint of this route. They say, we supported the establishment period and provided security of this route.

Generally countries are sending their productions with same routes but there are some of alternative ways and strategies to decrease freight costs. For instance, to transport goods to Afghanistan, first you should pass through Iran and replace the plate of trucks and go through Azerbaijan and Georgia to use ferry in the Caspian Lake. Some of countries are calculating roads according to custom gates and countries war and peace statuses, some of countries are using North Europe via Russia, to Iran from Turkey's southeast, from Caspian to Kyrgyzstan and China routes.

Some companies have positive attitude about the Modern Silk Road. Commonly they said that, if logistics potential is improved, they can see it as a business. Also for inter modal transport; they need more investment in the Caspian Sea. If the railways are concerned, Russia corridor will go up to Northern Europe. In addition, this project will reduce the freight in Europe and it will destroy agencies and Ro-Ro vessels in the Mediterranean. On the other hand E and F companies see this is a real trade, it is not a route for us, it is a trading network also they see this road as a share of their family. Companies have not official plans on the Modern Silk Road in following years but E and F Company said that, at seminars this project are spoken but they are waiting for political solutions.

Finally, the most mentioned points of interviews are custom gates problems, infrastructure problems and security problems, and low trade volume at Turkic Republics. Also the other common problems are freezing Caspian Sea in winter period, high energy reserves but dominant countries, insufficient political strategies, political problems, peace and war status. According to companies answers Silk Road is not a route they say this road only opened for trade for now.

CHAPTER VI

Conclusion

During the analysis of the modern Silk Road firstly, countries' primary objective at the Trade of the Silk Road, if these countries increase number of neighbor trading, Author foresee, trade will be more active position. Namely, neighbor trading might support revising of the Silk Road. Furthermore international disputes and customs bureaucracy and documentary works should be solved and facilitated by countries, and there should be facilitate border crossings between countries in the region, in that reason there is a need for political initiatives. Economics, political and local are important in terms of regional. In order to facilitate border crossings, joint customs procedures should be adopted. Moreover, to facilitate border crossings between countries in the region there is a need for political intervention. Important countries do not want problems with its exporter countries especially with energy supplier countries.

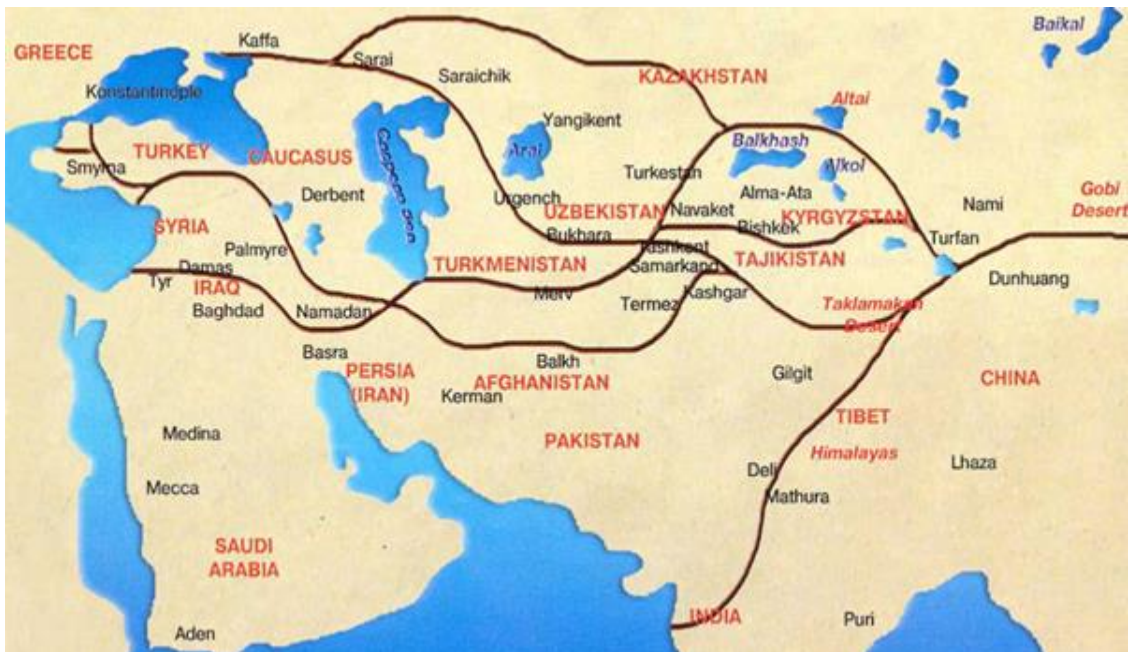


Figure 6.1 Silk Road map (from Oriental Express Central Asia)

On the other hand, transporting by trains can generate encouragement for Silk Road countries because; it is economic, environmental and safe transporting for trade. Secondly, planting logistics hubs on the Silk Road route might be important. Logistic centers should be established in the Silk Road corridor. Modern Silk Road idea will open new trade channel, therefore there will be new economic centers. Silk Road countries are located in middle Asia; Afghanistan, Azerbaijan and Turkmenistan are imperative points of Silk Road. These countries should be turned into logistics hub that gives combined transport and economic investment areas, because according to energy, trade and logistics approaches, and they are located middle of the Asia.

In addition Modern Silk Road should be implemented to provide economic integration between East and West with quality by the logistics infrastructure. Lastly, there is a one of the most important issues which is called energy. Also energy seems to main driver in that region as it is seen that energy analyses and tables; the Silk Road region has too much nonrenewable resource. It means there may be energy trades between supplier and consumer countries because energy resources was not separated equally for that reason, supplier countries should sell their energy resources to increase its own economical systems.

Also, consumer countries are trying to diversify these energy resources, because if you connected to one supplier, it will increase energy supplier dependency percentage. Even this event, the energy will play a significant role in the development of logistics and trade. As it is mentioned before, international disputes should be solved. For instance; the discussion has started because of a transfer fee between Russia and Ukraine in 2009, Ukraine did not pay transfer and natural gas debt. Russia cut down natural gas for Ukraine since the 1th January. Also, Russia claimed that Ukraine stole natural gas from this pipeline. For that reason Russia has suspended natural gas flow which is going to Europe and Turkey. As a result, in Central Asia, for the effective use of modern Silk Road route by the developing of the transport network, Silk Road countries need is a holistic approach.

Especially, countries fragility index show us, there cannot be political union, it can be an economic union. Because, every country has disputes, political refugees, trading nonrenewable resources, lack of logistics infrastructure. In near future, disputes will go on and it may be reason of bottle neck. When it is compared with the answers of interview, it is seen that majority of the answers are going to parallel conclusions with this. Usually countries have common point of problems. The most common unsolved problem is custom gates, documents and procedures. This problem makes low custom process nonetheless logistics and trades are affected. Anyway, it can be seen that on the logistics performance index score is about 2.2, namely it is the lowest average of LPI for the Modern Silk Road. According to interview's answers, logistics infrastructure is the second problem on Silk Road countries. According averaged Silk Road countries have 2.3 point of infrastructure score.

China and Turkey have high points because; it is mentioned before China is investing to this road for politically and economically. On the other hand, the reason of having high points for Turkey, being a transit country and he is a link between Asia and Europe therefore Turkey should has strong logistics infrastructure. Thirdly, security status has one of the most vital roles in this region because, if there is war in this area, there might be low infrastructure, low trade and continuously changing custom gate procedures. Also war and peace status can affect logistics and transporting activities for instance, trucks can form long queues at customs gates. In accordance with countries state fragility index points, Silk Road countries are between 108 – 57 points and averaged point is 83.6 (max points 120). It is mentioned on Chapter IV, This region has high risk point therefore customs, logistics activities and infrastructure of the Modern Silk Road are affected by wars. Investors are making invests, the number of ports and terminals are increased, finding new energy resources and the way of diversification are looked for. These will affect general picture and structure of the Silk Road but if these countries could solve these problems, especially, if fragility index point reduces, economic and political barriers can be

The other common idea is answering ‘‘Is Silk Road revival possible’’ question. Author’s conclusion and answers of interviews are meeting the common denominator; politically, there will be no Modern Silk Road union for long years, but there can be joint benefits alliance. Consequently, the modern Silk Road may rise with trade activities. Hopefully, this research serves as a starting point for practitioners, decision makers’ and academic world in contributing development of the Modern Silk Road



References

Biresseliođlu, Mehmet Efe, “NATO’nun Deđişen Enerji Güvenliđi Algısı: Türkiye’nin Olası Konumu”, Uluslararası İlişkiler, Cilt 9, Sayı 34 (Yaz 2012), s. 227-252.

Bob Judson, William Morgan and Jason Williams, Treasure Seekers: Documentary of the Silk Road, a Production of JWM Productions in Association with Crawford Communications Inc, 2000.

Broadman, Harry G. Africa's silk road: China and India's new economic frontier. World Bank Publications, 2007.

Bulut (eds).(2014). The Great Silk Exchange: How the World was Connected and Developed, pp.41-45.

Bulut, M.(Ed). (2014). Medeniyetler Güzergahı İpek Yolu'nun Yeniden Doğuşu.

İstanbul: Sabahattin Zaim Üniversitesi Yayınları Bulut, M.(Ed). (2014). ReSİLKROAD. Istanbul: Sabahattin Zaim University Publications.

Energy Trilemma Index, 2015, The World Energy Council, <https://www.worldenergy.org/data/trilemma-index> (Access on June 1, 2016)

(Ernst and Young China, 2015), [http://www.ey.com/Publication/vwLUAssets/EY-navigating-the-belt-and-road-en/\\$FILE/EY-navigating-the-belt-and-road-en.pdf](http://www.ey.com/Publication/vwLUAssets/EY-navigating-the-belt-and-road-en/$FILE/EY-navigating-the-belt-and-road-en.pdf) (Access on August 1, 2016)

Euler Hermes Interactive Maps of Country Risks, 2015, <http://www.eulerhermes.com/economic-research/country-risks/Pages/country-reports-risk-map.aspx> (Access on June 1, 2016)

Liu, X. (2010). The Silk Road in world history. Oxford University Press. ISO 690

The New Silk Road Initiatives in Central Asia, Fedorenko, 2013

<http://www.rethinkinstitute.org/wp-content/uploads/2013/11/Fedorenko-The-New-Silk-Road.pdf> (Access on June 1, 2016)

<http://worldpopulationreview.com/continents/2016> (Access on June 1, 2016)

<http://www.akfc.ca/en/events/item/245-carleton-silk-road/245-carleton-silk-road> (Access on June 1, 2016)

<http://www.intracen.org> , Silk Road Countries' the most trading items (land), 2015, (Adapted by using data) (Access on June 1, 2016)

http://www.iso.org.tr/file/ISO_Deri_ve_Deri_Urunleri_Imalati_Sanayi_Sektor_Raporuv2_2015-3982.pdf (Access on June 1, 2016)

<https://www.cia.gov/library/publications/resources/the-world-factbook/geos/iz.html> The World Fact Book 2016 CIA (Access on June 1, 2016)

International Trade center, 2014, Sectoral Diversification of Russian Exports and Imports, <http://bit.ly/22r00bb> (Access on June 1, 2016)

International Union of Geodesy and Geophysics's General Assembly in Prague, 2015.

Istanbul Chamber of Industry leather and leather products report, 2015.

Kutzin, Joseph, et al. "Bismarck meets Beveridge on the Silk Road: coordinating funding sources to create a universal health financing system in Kyrgyzstan." *Bulletin of the World Health Organization* 87.7 (2009): 549-554.

Logistics Performance Index, 2014, Adapted by using logistics performance index, <http://lpi.worldbank.org/international/global> (Access on June 1, 2016)

Millward, J. A. (2007). *Eurasian crossroads: a history of Xinjiang* (Vol. 24). New York: Columbia University Press.

Navigating the Belt and Road, 2015, <http://bit.ly/1OQvJei> (Access on June 1, 2016)

United States Trade Representative, 2014, p.1 Report on FTB Uzbekistan, P.1, 2014, <https://ustr.gov/sites/default/files/2014%20NTE%20Report%20on%20FTB%20Uzbekistan.pdf> (Access on June 1, 2016)

Purtas, F. (2011) *Orta Asya ile Güney Asya Arasında Modern İpek Yolu Projesi*. Report. Ahmet Yesevi Üniversitesi, Mütevelli Heyet Başkanlığı, Ankara

Silk Road countries distances, 2015, <http://www.timeanddate.com> (Access on June 1, 2016)

State Fragility Index, 2015, <http://www.oecd.org> (Access on June 1, 2016)

The Silk Road Countries Transportations, 2013, Adapted by using central intelligence agency data, <https://www.cia.gov/library/publications/the-world-factbook/> (Access on June 1, 2016)

The Silk Road Historical Map, http://www.chinatourguide.net/6_5.htm

Top 5 Natural Gas Trade movements, 2014, Bp statistical workbook 2014, http://www.bp.com/content/dam/bp-country/de_de/PDFs/brochures/BP-statistical-review-of-world-energy-2014-full-report.pdf (Access on June 1, 2016)

Total non-renewable proved reserves at Silk Road, 2014, Adapted by Bp statistical workbook 2014, World Energy Council and CIA the Fact Book data.

Trade statistics for international business development, 2015
<http://www.trademap.org/> (Access on June 1, 2016)

U.S Energy Information Administration, Primary energy consumption by source and sector,2014

http://www.eia.gov/energy_in_brief/article/major_energy_sources_and_users.cfm (Access on June 1, 2016)

United Nations Economic Commission for Europe, 24 February 2009, Joint trade and transport conference on the impact of globalization on transport, logistics and Trade: The UNECE Work

Vladimir Fedorenko, 2013, The New Silk Road Initiatives In Central Asia, P,12,14,<http://www.rethinkinstitute.org/wp-content/uploads/2013/11/Fedorenko-The-New-Silk-Road.pdf> (Access on June 1, 2016)

Whitfield, S. (2004). The Silk Road: trade, travel, war and faith. Serindia Publications, Inc.

Whitfield, S. (2005). Life on the Silk Road. Istanbul: Inkilap Kitabevi.