

**ISTANBUL TECHNICAL UNIVERSITY ★ GRADUATE SCHOOL OF SCIENCE**  
**ENGINEERING AND TECHNOLOGY**

**THE IMPACT OF TRADE ON THE TRANSFORMATION OF TRANSPORT  
ROUTES IN ANATOLIA:  
A HISTORICAL-SPATIAL ANALYSIS**

**M.Sc. THESIS**

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**Department of Urban And Regional Planning**

**Regional Planning Programme**

**Thesis Supervisor: Prof. Dr. Gülden ERKUT**

**MAY 2015**



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**İSTANBUL TEKNİK ÜNİVERSİTESİ ★ FEN BİLİMLERİ ENSTİTÜSÜ**

**ANADOLU'DA TİCARETİN ULAŞIM ROTALARININ DEĞİŞİMİ  
ÜZERİNDEKİ ETKİSİ: TARİHİ-MEKANSAL BİR ANALİZ**

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*To my parents and Jahanabad,*



## **FOREWORD**

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May 2015

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## **ABBREVIATIONS**

<b>EU</b>	: European Union
<b>NTT</b>	: New Trade Theory
<b>GATT</b>	: General Agreement on Trade and Tariffs
<b>GIS</b>	: Geographic Information System
<b>TEN-T</b>	: Trans-European Transport Network
<b>TRACECA</b>	: Transport Corridor Europe-Caucasus-Asia
<b>USA</b>	: United State America
<b>UBAK</b>	: Ulaştırma, Denizcilik, Haberleşme Bakanlığı
<b>UHD</b>	: Ulaşım, Haberleşme, Denizcilik
<b>WTO</b>	: World Trade Organization





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# **THE IMPACT OF TRADE ON THE TRANSFORMATION OF TRANSPORT ROUTES IN ANATOLIA: A HISTORICAL-SPATIAL ANALYSIS**

## **SUMMARY**

In this thesis, the aim is to find out how trade; especially international trade affects the connectivity network in Turkey over time. In this attempt, historical changes of trade and transportation route from the beginning of the first trade route via Ottoman period until the Republic period by using the historical resources, using the map of routes and the major trade centers are searched.

The objective of this thesis is to investigate effects of trade and commercial relationship between countries and regions on connected networks and their changes over time. With the development of economic theories, by technological improvements connectivity types and networks change in order to facilitate the economic interaction between the regions, are the essential components to economic growth in the world.

Interaction and relationship are the first social demands of life, by either trade or economic activities. By development of trade theories over time, the geographic shape of trade has always been one of the most attended topics. Connecting via routes has obtained essential role, even in the normal interactions by changing the integration modes and the kind of relationship due to the producers, costumers and traders.

Starting with the end of the seventeenth century, by the changes of the production style and the industrial revolution in the period from eighteenth century, the craft model of production operated as a small independent business, had begun to be replaced to the export sector almost everywhere in the world. It caused the economic systems to transform due to economic conditions. In addition, economic damages due to the World Wars led to crisis to run down quality of life in the entire world. Restructuring of the world economy was the first mission between states after wars. While the World Wars weakened the economic power and changed great powers in the Europe, technology, capital and organizational mode came from the United States to solve the European conflicts caused of wars. After that, United State played a major role in restructuration the relationships between the countries with the help of establishing the United Nation. Economic development as a solution for the disasters of the wars, the aiming control of Communism, European integration against another world war and international coordination as a mechanism to remove crisis around the world were the main characteristics of that period. This was the initial effort to integration and confederate in global scale between the states, countries and continentals.

European Coal and Steel community, and later Common Market were some initiatives to make a more powerful European against to the west and east powers. These continued by means of some development progress programs and projects, using the new economic organization to incorporate new countries to rise and grow stranger the United Europe. In this framework, infrastructure investments via transportation systems are one of the significant components of the main projects in this process as wide integration cohesion policy. After that, development of infrastructure between more territory and states come the most important purposes to increase connectivity due to this cooperation.

Same as the old times, Silk Road was the essential way to pass the borders and beginning of introduce wars or trades of nations and states. Last decades also development of infrastructure especially transportation systems are the main of integration as global world.

The transportation system consists of the set of relationships between nodes, networks and demands. These involve locations spatially expressing this demand, flows between them and infrastructures designed to handle these flows. All components of a transport system are designed to facilitate the movements of passengers, freight and information, either as separate or joint components as trade route.

Trade route is a way that connects two different economic activity points through individual geographical location. These routes mainly provide connections between economic nodes or hubs that are usually centered near the urban places. By shaping the regional scale of connectivity, international relations in terms of trade accelerate. Silk Road, the main artery of the commerce between the east and the west throughout the centuries, is a unique example of the old trade route, which witnessed varying powers, wars, trade with rising or collapsing on them. It was the most famous not at all trade routes, but also social, economic and cultural converting route. Silk Road is an example how trade can transform the relationships, places, geography concept and economic activity area.

By restructuring and development of transport systems in regional and international scales, cities and regional as nodes of these routes are the major places that influence directly. Anatolia as essential territory during the time throughout these route even the past until now, selected for this thesis.

This study tries to indicate historical process of trade relations and reconstruction of commercial routes within the Anatolian territory via using and interpreting the route maps during the different epochs from the first trade route until the last international transportation projects. It is aimed to explain how similarly the transportation systems reshape the economic specialization according to geographic and endowments characteristics, demands and trade changed the productivity and transportation direction. Trade targets reflect the productions and flow direction according to the demand and market destination. At least, locations through this route –involve cities, urban or regional hierarchy. During this process, some huge cities as global or mega ones emerged. However, political destinations are main reason to select a city as capital. This thesis aims to indicate trade and international trade which affect the importance of a city and its development, in this manner international trade was essential component in direction of transportation improvement as well as cities development.

Regarding to rise or collapse of routes, settlements transformed. Although state trade policies affect the route oriented, international trade relations impress this strike. Last decades increasing of international trade and free integration of regions and nationals expose the variety infrastructure projects between them that is sign of infrastructure importance development to go up into the global world.

Main target of this research is to interpret the transformation of the Anatolian trade routes over time. Anatolia as the oldest agriculture center by proximity to the Fertile Crescent and the first trade center and route, has ancient term in this issue. Not at all the ancient importance but also strategic geographical location brings this significant position to these days. In this way, investigation of the how these conditions reforms

by passing time and how considerably world events influence the trade routes and settlements within the Anatolia territory in terms of economy and trade attitude.

To achieve this purpose, after discussing trade and trade theories; I focused on historical resources about main events of world as well as Anatolia, additionally to influences of them on trade routes by using the available historical maps.





## ANADOLU'DA TİCARETİN ULAŞIM ROTALARININ DEĞİŞİMİ ÜZERİNDEKİ ETKİSİ: TARİHİ-MEKANSAL BİR ANALİZ

### ÖZET

Bu tezde amaç ticaretin, özellikle de uluslararası ticaretin zaman içerisinde Türkiye'deki bağlantı yolları üzerindeki etkilerini koymaktır. Bu amaçla tarihsel kaynaklar, ticaret yollarının haritaları ve önemli ticaret merkezleri araştırılmış, Osmanlı dönemindeki ilk ticaret yolundan Cumhuriyet dönemine kadar geçen sürede ulaşım hatlarındaki tarihsel değişimler incelenmiştir.

Bu tezin hedefi, ticaret ve bağlantı ağları üzerindeki ülkeler ve bölgeler arasındaki ticari ilişkilerin etkilerini ve bu ülke ve bölgelerin zaman içindeki değişimlerini araştırmaktır. Ekonomik teorilerin gelişimi ile bağlantı türleri ve ağları kolaylaştırmak için teknolojik ilerlemeler sayesinde değişir. Teknolojik gelişmeler ile ekonomik teorilerin gelişmesi sonucunda bağlantı türleri ve ağları da bölgeler ve ülkeler arasındaki etkileşimi kolaylaştırmak için değişmiş, bu da ekonomik büyümenin dünyadaki temel unsuru haline gelmiştir.

Etkileşim ve ilişki hayatın birinci sosyal ihtiyacıdır, ticaret ve ekonomik faaliyetler itibarıyla da bu böyledir. Ticaret teorilerinin zamanla gelişimine bakılırsa, coğrafi şekiller her zaman en çok ilgilenilen konulardan biri olmuştur. Yollar kanalıyla bağlanma, birleşme türlerinin ve üretici, tüketici ve tüccarlar sayesinde oluşan ilişki türünün değişmesiyle normal etkileşimlerde bile önemli bir rol elde etmiştir.

16. yüzyılın sonları ile başlayan üretim şeklinin değişimi ve sanayi devrimiyle, küçük bağımsız işletmelerin işlettiği üretimin esnaf modeli, yerini hemen hemen dünyanın her yerine ihracat sektörüne bırakmaya başlamıştır. Bu, ekonomik şartlara göre ekonomik sistemlerin biçimini değiştirmesine sebep olmuştur. Dünya savaşları, dünyada yaşam koşullarına zarar verecek krizlere neden olmuştur. Bu karanlık yıllardan sonra, ülkeler arasındaki birincil amaç dünya ekonomisini yeniden yapılandırmak olmuştur. Dünya savaşları Avrupa'daki ekonomik gücü zayıflatırken ve büyük güçleri değiştirirken; Avrupa'daki savaşlar sonrası karmaşayı çözmek için teknoloji, sermaye ve örgütsel model Amerika Birleşik Devletleri'nden gelmişti. Bundan sonra, Birleşik Devletler, kurduğu Birleşmiş Milletlerin yardımlarıyla, ülkeler arası ilişkilerin yeniden yapılanmasında başrol oynamıştır. Savaş sonrası olağanüstü duruma çözüm olarak ekonomik gelişme, komünizmin kontrolünün hedeflenmesi, Avrupa'nın başka bir dünya savaşına karşı birleşmesi ve dünya genelinde krizleri ortadan kaldıracak bir mekanizma olarak uluslararası koordinasyon, bu dönemin ana karakteristiklerindendi.

Avrupa Kömür ve Çelik Topluluğu ve daha sonra Avrupa Ekonomik Topluluğu batı ve doğudaki güçlere karşı Avrupa'yı daha güçlü yapmak için oluşmuş girişimlerdenidir. Bu girişimler, Birleşik Avrupa'yı yükseltmek için başka yeni ülkeleri bünyesinde toplamak maksadıyla yeni ekonomik örgütlenmeyi kullanan bazı

gelişme ilerleme program ve projeleri sayesinde devam etti. Ulaşım sistemleri vasıtasıyla altyapı yatırımları, kapsamlı entegrasyon uyum politikası olarak bu süreçteki ana projelerinin en belirgin bileşenlerinden biridir.

Eski zamanlarda olduğu gibi İpek Yolu sınırları geçmek için ülkeler arasında ticaret savaşları başlatmak için başlıca bir yoldu. Son zamanlarda altyapının özellikle de ulaşım sistemlerinin gelişmesi küresel dünyanın entegrasyonunun ana nedenlerindendir.

Ulaşım sistemi düğüm noktaları, ağlar ve talepler arasındaki ilişkiler kümesi olarak kavramsallaştırılabilir. Bunlar, yerleşim birimlerinde mekânsal olarak bu talebin, mekan-talep arasındaki akımlar ve bu akımları karşılayacak şekilde tasarlanmış altyapılar olarak dışavurumuna yol açar. Ulaşım sisteminin tüm bileşenleri, ayrı veya birleşmiş bileşenler olarak; yolcuların, yükün ve bilginin hareketlerini kolaylaştırmak için tasarlanır.

Ticaret koridoru iki farklı ekonomik aktivite noktasını kendilerine has coğrafi konumu vasıtasıyla birbirine bağlayan bir yoldur. Bu yollar esasen genellikle bir kentsel alan yakınında merkezlenmiş ekonomik düğümler ya da göbekler arasında bağlantı sağlar. Uluslararası ilişkiler ticari anlamda bağlantının bölgesel ölçeği şekillendirilerek ivme kazanır. İpek Yolu, yüzyıllar boyunca doğu ve batı arasındaki ticaretin ana arteri, türlü güçlerin, savaşların, ticaretin yükselişine veya çöküşüne şahitlik eden en eski ticaret yolunun eşsiz örneğidir. Tüm ticaret yollarının yalnızca en ünlüsü değil, aynı zamanda sosyal, ekonomik ve kültürel dönüştürme yoluydu. İpek yolu, ticaretin ilişkileri, yerleri, coğrafi konsepti ve ekonomik faaliyet alanlarını nasıl dönüştürebildiğine bir örnektir.

Bölgesel ve uluslararası ölçekte ulaşım sistemlerinin gelişmesi ve yeniden inşa edilmesinden bu yolların düğüm noktası olarak şehirler ve bölgeler doğrudan etkilenmişlerdir. Bu rota içinde geçmişte olduğu gibi şimdi de oldukça önemli olan Anadolu bu tez için seçilmiştir.

Bu çalışma ekonomik ilişkilerin ve Anadolu bölgesindeki ticari yolların yeniden oluşturulmasının tarihini zamanın yol haritalarını kullanarak ve yorumlayarak açıklar. Küresel boyutta, ulaşım uluslararası ticaret yoluyla üretkenlik sayesinde ekonomik ihtisaslaşmayı destekler ve şekil verir. Ticaret hedefleri talebin ve pazar yerine göre üretim ve akış yönüne yansır. En azından, yol boyunca olan mekanlar belde, kentsel veya bölgesel hiyerarşi içerir. Bu süreç içinde bazı büyük yerleşim yerleri küresel şehir veya mega şehir olarak ortaya çıkarlar. Fakat bir şehrin başkent olarak seçilmesinin ana nedeni siyasi hedeflerdir. Bu tez ticaretin ve uluslararası ticaretin bir şehrin önemini ve gelişimini nasıl etkilediğini belirtmeye çalışmaktadır. Bu bağlamda uluslararası ticaret şehirlerin gelişimiyle birlikte ulaşımın da gelişimini yönlendiren önemli bir bileşendir.

Deniz veya kara yollarının yükseliş veya çöküşüyle yerleşim yerleri dönüşüm geçirdi. Ticaret veya başka uluslararası ilişkiler hakkında devlet politikalarının değişimi sayesinde yolların yönü bu kararlara göre şekillendi. Son zamanlarda uluslararası ticaretin ve bölgelerin ve ülkelerin serbest birleşiminin artması küresel dünyadaki altyapının öneminin bir işareti olan aralarındaki altyapı projelerinin çeşitliliğini etkilemektedir.

Bu tezin ana hedefi, tarih boyunca Anadolu ticaret yollarını yorumlamak ve dünyada gelişen olayların Anadolu bölgesindeki ticaret yollarını ve yerleşim yerlerini ekonomik ve ticari durumlar bakımından ne kadar büyük ölçüde etkilediğini

göstermektedir. Sadece antik önemi değil stratejik coğrafi konum da bu önemli pozisyonu bugünlere getirmiştir. Bu suretle bu koşulların zamanla nasıl değiştiğini ve dünya olaylarının ticaret yollarını ve yerleşimleri ne kadar büyük ölçüde etkilediği Anadolu bölgesi ekseninde ekonomi ve ticaret durumları bakımından incelenmiştir. Ticaret ve ticaret teorileri tartışmasından sonra dünyadaki başlıca olayların Anadolu'yu da ticaret yolları konusunda en az diğerleri kadar etkilediği hakkında, haritalar kullanılarak tarihsel kaynaklara odaklanılmıştır.



## **1 INTRODUCTION**

Connection between two different geographical points, leads to appear a path as a route. After feeding and warning to live, discovering the new places and owing more was one of the initial experiments of humankind by passing through the routes. The main objective of this research is an investigation of transformation and change in settlements and their connectivity route: how this integration changed over time. How trade and international relationship affect the old road systems, especially the structure of the meeting points of the roads?

### **1.1 Purpose of Thesis**

In this thesis, the aim is to find out, how trade; especially international trade affects the connectivity network in Turkey over time. In this attempt, historical changes of trade and transportation route from the beginning of the first trade route via Ottoman period until the Republic period by using the historical resources, using the map of routes and the major trade centers are searched.

The main objective is an investigation of transformation and change in historic cores of transportation networks according to the trade relationships. How the trade has been so important activity in human life? Different economic theories mentions about the trade and economic growth, and the importance of it, with transportation subject.

### **1.2 Significance of Study**

Trade is the first contacting acts in human life as an exchanging factor. This is occurred by assigning the routes to arrive destination point. Trade and road have an old relationship, even though trading in ancient era just as the Silk Road until now, in modern economic and commercial activities like networks and routes has an essential role.

By developing the places and shapes of the connection, transportation systems were changed over time. A historical perspective shows improvement in economic and social within the evolution of transport systems. In this process, per economic theory arise via the different conditions of the world's economic situation to the solution of the human problems within location and social characteristics.

Free trade and more integration between the states and global economy by new trade theory were the last ones, let the people to move, means, knowledge and information through all over the world easily by passing transportation and new technology networks. International trade and economic activities among the regional and interregional level, required interregional linkage through the distances with less price in minimum time. In this context, transportation networks have a substantial role. In the last decades, trade corridors and routes have acquired importance to solve this process. Corridors as an accelerate construction, helps easily to flow between economy or service centers.

Corridors as a kind of regional concept known as areas between two or more activities and services point surrounded by some services or economy activity or life centers. Sometimes these centers are cities or regions within the country or outside, as international trade markets. Achieving these connects need power infrastructure. In the last decades, by changing the scale of cities and regions to global ones, there are so many international integration projects around the world. More than a hundred corridor projects are the main implementation of the World Bank (Mustra& Kunaka, n.d).

In addition, other agencies and countries have many similar projects in the world. In particular, attention is on improving performance and quality of service of a trade route. Efficient global manufacturing-particularly in Asia-and efficient infrastructure helps to improve the international trade in the last decades. To achieve these targets, there are so many international transportation projects like NAFTA in USA, TEN-T in Europe and TRACECA in Asia as a Silk Road restructure to increase the connection and essential integration between regions, both countries and in between the continents.

The phenomena mentioned above have been the thought of influencing the trade on the road network. Within such a framework of thinking, this study was aimed to eliminate the influences of trade organization on the transportation networks over

time. The methodology selected for the study is a concise review of the literature and creation of the maps in terms of related period.

### **1.3 Scope of Study**

This study provided a unique opportunity to look at the relationship between the trade and transportation routes and tried to be indicated by transformation process that occurred on trade routes within the Anatolia territory during the history.

The phenomena mentioned above have been thought of influencing the trade on the road network. Within such a framework of thinking, this study was aimed to eliminate the influences of trade organization on the transportation networks over time. The methodology selected for the study is a concise review of the literature and interpret the maps in terms of related period.

For case, the study selected the Anatolia as one of the places that hosted the so many Great Empires of the world. The first agriculture and first international activity, with significant geography and strategic location between the West and East powers.

During this investigation, main historical information about the economy and trade relationship, transformation of settlement and routes in Anatolia are the initial parts. By using the history and economic literature, concerning the GIS program that has tried to draw the trade route from the very beginning of these periods continued until the 19<sup>th</sup> century in the Anatolia territory. Regarding the main social, economic and political happenings of the world, description and interpretation of this exchange and its influence on Anatolian roadways and routes are analyzed.

Regarding the method, below the stages in research process are presented:

Firstly, literature survey: both theories and historical resources

Secondly, collect data and maps

Thrithy, using Arc-Gis programme





## **2. THEORETICAL BACKGROUND OF HOW TRADE RELATED TO ECONOMIC GROWTH AND TRANSPORTATION**

With regard to the changes in the production activity, different opinions related to the theories have been observed during the transformation of communities. These systematic strategy decisions of each organizations or states to economic development that changed according to the different time, is called the economic system.

### **2.1 Classical Theories of Economic System and Trade**

Around the middle of the fifteenth century, economic, political, social, and cultural transformation around the world began. It had continued by the industrial revolution at further century and was to last beyond the middle of the eighteenth century, when everything were ready to appear modern economic systems. During these times, variety of economic system and theories emerged firstly in premise power around the world. Strong countries by economic flows regard to their profits and use these rules and theories, tried to be the world power.

According to (Gregory, Stuart, 1995), economic systems are identified and classified according to their basic characteristics, such as ownership (private or non-private), the mechanisms of market information (or plan), levels of authority in decision-making and responsibility (centralized or decentralized), and final agreements incentives (moral or material).

*“The economic system is the set of institutional arrangements used to allocate scarce resources. The limits of productive resources (labor, land, and capital) dictate the scarcity of resources. As a result of scarcity, societies must decide in an orderly way, what is produced, how to produce it, and for whom it is produced. If such ordering arrangements are absent, anarchy and chaos will prevail”* (Gregory, Stuart, 1995).

Consequence decided in this manner was a major affair of states, by using economic thought and manners as an economic system. Mercantilism was the first economic

policy after that by Adam Smith in (1986 [1776]) "The Wealth of Nations"; his famous book, due to that time supported the having more for power, also David Ricardo's "Principles of Economics" (1951) advertises the formulation of a free trade theory, represented form of unique success in the respective industry and trade fields in England.

*"During the medieval period of history there were five important points of economic policy: abundant supply of food and raw materials to towns and cities, their regular supply to consumers, enactment of laws placing restrictions on all visitors to towns, no trade with foreign merchants without the intervention of a native intermediary, and ethical considerations in commercial policy. But more important than the town policy was a national policy which could create more facilities for the development of trade and commerce. Mercantilism helped the European countries in adopting a national commercial policy"* (Bates, 1988).

According to mercantilism, there are two things make strong a country; either gold or silver mines owned, or engage in trade. Due to all countries did not have gold and silver mines, such countries as England, France could amass bullion by importing the minimum of the most essential commodities and exporting the maximum of manufactured things.

Mercantilism promoted the adoption of certain policies relating to the development of associated industries, organization of agriculture, etc. Shipping and fishing industries were enjoyed priority over others also; they helped noticeably the foreign trade of the country. Since increasing of the production of food crops and tobacco, agriculture was to be organized and their imports decreased. In a Mercantilist State, internal trade was less important in economic improving (Bates, 1988). Adam Smith's argument to free international trade had been derived from mercantilistic analysis of the benefits of specialization and division of labor between nations as well as individuals. In addition, it rested on the absolute differences in production costs. David Ricardo, in his "Principles of Political Economy" (1819), via the principle of comparative advantage, was the foundations of the modern theory of international trade (Cameron, 1993). In this manner, free trade became important for relations and state policies that against to the Mercantilist policies of protection, and it was supported by both Smith and Ricardo as a route to access efficiency production at a global level. Therefore, the economic pattern of states changed by the new production shape (mass production) and market points.

Traditional trade theory indicates little guidance to solve about how patterns of past trade affected current trade flows. Usually, the current trade is related to the provision of current factors and current technologies. There is no reason why these models endowments and technologies above factors, trade flows influence trade patterns (Bates, 1988).

In literature a further distinction between economies of scale that are "national" origin as opposed to those are "international" is made, the latter arising from changes in the global industry. New trade theories regarding the presence of monopolistic competition suggest that the initial conditions can influence trade flows and therefore introduced the role of history. These theories were developed to analyze, among other things, the possibility of delay in trade. Baldwin (1988), Dixit (1989), Baldwin and Krugman (1989) and others focused on how a large but temporary real exchange rate shock could have permanent effects on trade patterns (Bates, 1988). Effect of increasing returns to scale on the pattern as well as on the mutual benefits of international trade was a major point raised in these modifications.

*“As for the scale economies, which are external to the firm and internal to industry, production achieves a global span in terms of location. This, in terms of New Trade Theory, permits cost reduction on a global scale while dislocating production from areas/countries where it is less cost-efficient”* (Krugman 1981; Ethier 1982).

A case for free trade that relies on the potential achievability to all trading nations by accessing increasing returns on a global scale is important in this argument.

## **2.2 New Trade Theory and Economic Geography**

The new trade theory, developed by investigators like Helpman (1981), Krugman (1979), and Lancaster (1980) in the late 1970s and 1980s, after traditional theories lacked to describe some of the most considerable facts about post World War II economic conditions. The impact of increasing returns to scale on the pattern as well as on the mutual benefits of international trade was a main point raised in these modifications. Samuelson (1954) and later, Krugman (1980) introduced the key importance that trade discontents play determining relative factor prices between countries, and also final comparative development, in shaping the patterns of international trade.

Krugman's first contributions to New Trade Theory contain all the elements to the New Economic Geography. Exploring the differential effects of transport costs in the best prices and real costs in the countries, Krugman (1980) by taking income as given, formalizes the domestic market effect. Krugman (1979), however, takes income endogenously and shows a systematic understanding of the agglomeration effect on the increasing yields aspect. This would lead to a trade pattern, in which countries tend to export exactly those goods for which they have a large domestic market. Adding transport costs to a slightly different version of his basic NTT model of 1979, Krugman (1980) replicated this result:

*“Increasing returns provide an incentive to concentrate production of any one product in a single location; given this incentive to concentrate, transport costs are minimized by choosing a location close to the largest market, and this location then exports to other markets”* (Krugman 2008).

In addition to exchange of the production form, the vastness of the market and distances between them reformed. These transformations argued with new themes such as new economic geography and new transportation geography with the explanation ability for the new global world.

As discussed by Krugman and Fujita (2004), economic geography provides a challenging and innovative introduction to the related research field by citing the substantive concerns of economic geographers, the methods implemented to study key concepts and theories that animate the field, and the main issues that generate debate. The definition of the new economic geography is how to explain the formation of a variety of economic agglomeration (or concentration) in geographic space. Agglomeration or clustering of economic activity occurs in many geographic levels, which have a variety of compositions (Fujita, Krugman, 2004). Following the free trade and international incorporation between the economic activities, new theories in the competition world; changed the boundaries. New Trade Theory with New Economic Geography recovered form of the world market by passing the obstacles one by one. Since more flowing trade depends upon the different geographical spaces, transportation cost has an essential role in this globe marketing. Less distance with least tuition in logistic were next challenges for researchers in economy and trade world.

### 2.3 Transportation Geography and Trade

Moving and passing spaces through the ways was the first activity of human to achieve demands: sometimes to hunt and access the food, sometime to discover the new land to war or live although transport always accrued with transactions during the history. Allied to improve of technology and discovering the new lands raised exchanging in transportation vehicles and modes along with a new market place to trade. Mobility in human life helped economic and social development. Comfortable moving and accessibility provide the economy and social growth that is crucial in national and international relation. Especially, due to the importance of transport cost in trade, transportation and related activities became one of the most important issues in the economy.

*“There would be no transportation without geography and there would be no geography without transportation. The goal of transportation is thus to transform the geographical attributes of freight, people or information, from an origin to a destination, conferring them an added value in the process.”*(Rodrigue, Comtois& Slack, 2006)

After industrial revolution, this change was more effective on economic and billing activities like long-distance trade. Through the time, the main purpose of modern forms of transport such as railways and shipping was to create an active national market. In the twentieth century, route selection was the major focus. Giving importance to modes of transport by increasing the capacity of networks and prepare mobility demands indicated in global scale (Rodrig, Comtoi and Slack, 2006). Location of resources (raw material, people, and capital) is one of the significant feature of spatial economy. For mobile resources (Information), technology helps to pass the distance so far as possible, and therefore, the distribution of immobile resources has a leading role in the how good economy activities are placed. In this way, locations and connectivity way via transportation routes are very effective in economic growth. This shaping role could be regional, national and global scale. Existing resource location with economic activity oriented the transportation route due to the destination point.

Assuming that transportation geography is a branch of economic geography, it raised around the second half of the twentieth century. Any time transportation was an essential feature in correspond to geographic space in terms of the economic activities' places and the monetary costs of distances. Transport costs in the 1960s, were recognized as major factors in location theories. However, since the 1970s globalization has faced the centrality of transportation in many geography and regional development investigations. In addition, mobility of people with freight, and low transport costs were noticed as crucial factors back to the globalization of trade and production (Rodrigue, Comtoi and Slack, 2006). Geographic characteristics, expansion of commerce, and especially long-distance trade shape the commercial, industrial activities within the settlement centers. In addition, these conditions oriented the trade routes by connecting these nodes points.

Since the 1990s, the geography of transportation has received renewed attention, especially for the problems of mobility; production and distribution are interrelated in a complex geographical environment. It is recognized that transport is a system that takes into account the complex relationships between its basic elements: networks, nodes and demand (Rodrigue, Comtoi and Slack, 2006).

## **2.4 Transportation Systems: Network and Nodes**

According to the Rodrigue, Comtois and Slack (2006) variety of socioeconomic activities create the demand for the movement of people, freight and information. Locations where movements begin, end and being transfered are nodes.

Trade and commerce, steam and machinery, the solution conflicts of new transportation systems, the industrial and commercial agriculture, the increasing of commercial centers, the transportation, the industrialization and the factory system are the reasons that concentrated the people in cities, concluding that this was basically a product of economic forces and these reasons in turn were the kind becoming essential by the industrial revolution (Weber, 1966). In related to the scale of these gathering centers as nodes, connectivity route would be local, regional or international. In addition, conjunction points of routes depend on the importance of them are national on international, local or globe cities.

Due to the ranging from local to global (as global economy, networks are one set of transport infrastructures that adjust oriented connective also including within a

complex set of relationships between transports afford, transport demand, especially the operational capacity of the system and the mobility requirements of a region. Transportation systems are composed of a complex set of relationships between the demand, the locations, which provide service and the networks, which direct movements. Actually, they are dependent on the commercial area from which are derived operational aspect, such as transportation costs, capacity, efficiency, reliability and speed. These affects depend on the improvement of transportation networks, both in capacity and in spatial bounds.

*“The major transformation of the pre-industrial city took place with the rise of the industrial world. The new cities were the result of a combination of technological change and the creation of a new economic system; one based not on trade, but upon the creation, wealth through use of capital. A key area of change in urban consumption has been in the transport infrastructure. Road developments, the privatization of the railways, the introduction of containerisation and reform of the ports, and the development of larger airliners, have all been centrally important in reducing time and cost in this area ” (Weber, 1966).*

In the ground of the globalization of economic activities, liberalization of trade was accompanied by a growth of transportation since transactions include movements of people, freight, capital and information (Rodrigue, Comtois and Slack, 2006). Accordingly, transportation development, economic opportunities are likely to improve where infrastructures are sufficient for mobility require has and imply to get markets and resources. These properties and facilities led to appear the economic growth.

By the industrial revolution in the nineteenth century of globalization and international economic integration processes of the late twentieth century, some regions of the world had different effects via economic growth. If there is not international trade just a lot nations could continue a sufficient standard of living. Without foreign resources, a country could produce a restricted amount of product and shortcomings would be common. With global trade, a massive variety of resources will be accessible for the more wide area. In addition, distribution of variables-manufactured goods provided in the other sides of the world is another advantage of global trade (Rodrigue. Comtois. Slack, 2006).

By growing levels of economic integration, trade is facilitated and result of processes is instantiated: the European Union or the North American Free Trade Agreement.

#### **2.4.1 Trade routes**

During the history, transport routes formed the spaces on different scales. Specific resources cities, labor and markets as production and consumption pieces generate a wide flow of people, goods and information. Transportation activate economic improvement and makes structures the space. The network represents the framework of routes within a system of places as nodes. A route normally connects lines between two nodes; it can be one part of a larger network such as roads, rails, airs or sea corridors (Rodrigue, Comtois&Slack, 2006). A corridor often links high-density agglomerations with services, produce capacity centers in local or regional scale.

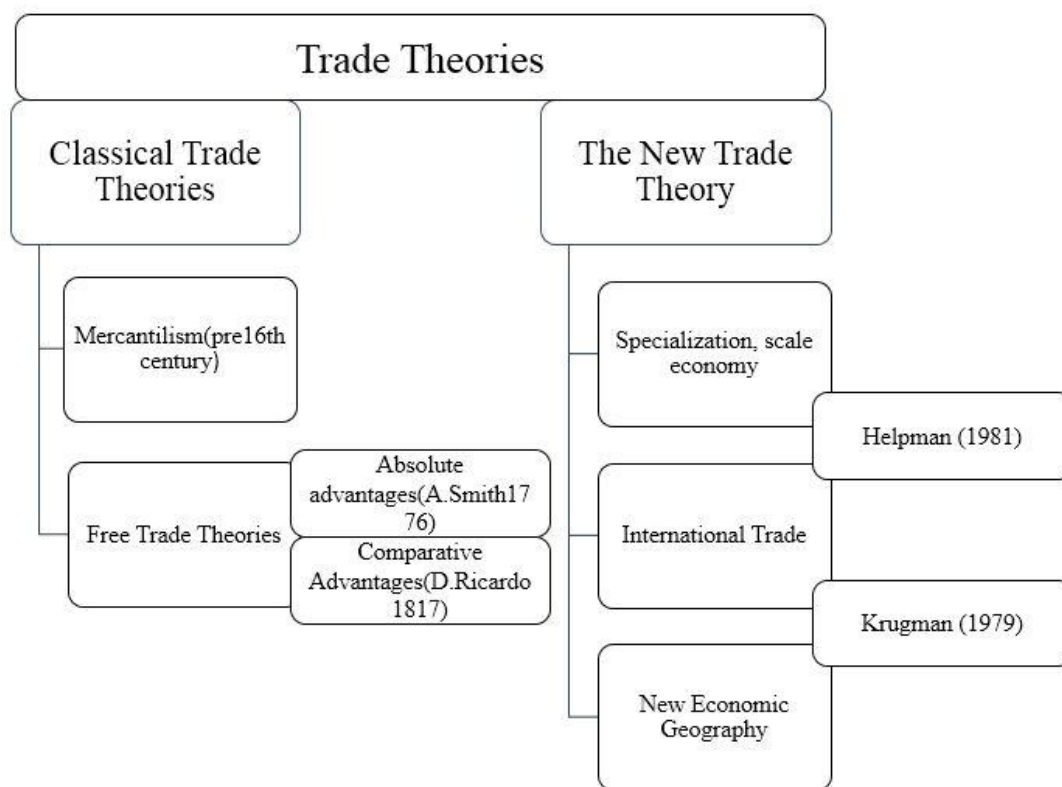
*“A transport corridor is physically defined as a combination of routes that connect centers of economic activity across one or more adjoining country, each route being composed of links over which transport services travels and nodes that interconnect the transport services. The end points are gateways that connect the economic centers to the hinterland or to the global trade routes”* (Pglobal, 2011).

Optionally, a corridor may be established to prepare an international gateway for one or more landlocked country. When there are usually existence trade between the landlocked country and its neighbors, another country must often be connected fixers by countries that have sea access. This purpose may be continued to expand an available economic union, for example; TEN network in Eastern Europe by TRACECA to enlargement of the EU (Rodrigue, Comtois. Slack, 2006). According to these transportation projects, the oldest trade route, Silk Road in the Asia are planned to revive by new infrastructures, roads and railways.



In order to summarize the above-mentioned process the chart below aims to explain the relationship between the theories that were developed in different periods.

**Table 2.1 :** Trade Theoris and relationships, drawn by author.





### **3. HISTORICAL DEVELOPMENT OF TRADE AND TRANSPORT**

Desire for holding more ownership and possessing more and more commodities are the main reasons of competition among the human societies and empires, also competition causes people to move and recognize new places to get ownership. Understanding of how the modern world developed with the contributions of many civilizations over time requires giving some historical information about peoples, their societies, and their interactions to form or reforms.

#### **3.1 Trade history of the world**

Viewing the movement of human society during the time known to history, is partly cyclic, partly progressive, and it appears like a tune which is played repeatedly. This process duplicates for the civilizations and empires. The ancient empires of Egypt and Babylonia were occupied by the Persian Empire, the Persian by the Macedonian, the Macedonian by the Romans, the Roman by the Teutons and Arabs, the Arabs by the Teutons. At every era of the humanity, a civilization which had reached a certain extent and then grown fragile was destroyed, and a new one was built upon its ruins, sometimes only after a considerable period of chaos. When looking these phases of civilizations, we see only the cyclic movement of history: birth, growth, decay and death, in empires and civilizations as with the beasts of the field (Russell, 1996).

According to Weber (1996), cities are closely relating with the developments emerging around 3000-4000 BC in the Nile valley and Mesopotamia of the Fertile Crescent (Carter 1983). They first became significant as places of trade and governance activities, which were to continue to be considerable for decades to come. Later, around 2000 BC, cities were also appeared in Crete, the Yellow River area of China, Greece, and the Indus valley. In South America, the Mayan, Aztec urban settlements date from the first millennium AD. As the settled parts of the world grew in Europe, urban areas and cities became an element of the landscape. Over time, they grew from small settlements for trade and transformed into grander political, economic and cultural centers.

*“The development of urban communities paralleled the expansion of trade and commerce began in the 11th century, and, while sharing many common characteristics with the surrounding feudal countryside -such as a desire for stability and an absence of competition- these towns were instrumental in hastening the decline of feudalism as a dominant institution” (Rider, 1995).*

In 1492, when Christopher Columbus sailed from Spain across the Atlantic and then returned the next year, this voyage opened a new era in world history. The discoveries of Columbus and other seafarers facilitated the Europeans to improve their access to the rich sources of India and China. At this period, Asia in general increased agricultural productivity, refined in arts and crafts comparing to European crafts and offered a wide variety of products, such as silk, cotton, porcelain, coffee, tea and spices desired Europeans. Also in 1497, the Portuguese mariner, Vasco da Gama, committed a similar long-distance voyage and returned, which he reached by sailing first westward into the Atlantic and then turned south to round the southern tip of Africa. Before 1400, European ships generally traveled no further than the Black Sea on the east, the Mediterranean Sea on the south, the English Channel and the North Sea on the west, and the Baltic Sea on the north (Goldstone, 2008). The last decade of the 15th century became a turning point for the world exploring the area outside of the European continent (Pamuk, 2005).

The last decade of the 15th century, was a turning point for the world, exploring the area outside of the European continent. Since the beginning of the spice trade between Asia and Europe via Middle East and the Mediterranean port of registration of the Indian and Atlantic oceans, the Middle East countries, as well as they thought negatively affected by the development of the Mediterranean states such as Venice.



**Figure 3.1 :** Good Hope, Route of Christopher Columbus, Redrawn by Author.

At the beginning of the 16<sup>th</sup> century, Caravans from India and the Middle East passed through the Mediterranean to reach the ocean. At the end of 16<sup>th</sup> century to early of 17<sup>th</sup> century, with the beginning of the commercial activities of Dutch and English trading companies the ancient trade route lost its significance. Trade routes and the policies followed in relations with Portugal in the Indian Ocean, the Ottoman government, in terms of showing the importance they attach to the control of foreign trade and trade routes, is an interesting example. In the year 1516, and 1517 foodstuffs and raw materials were traded from Egypt to Anatolia and to Istanbul in particular, the way the palace and the army was an important part in meeting the subsistence. In addition, after the Ottoman government with the participation of Syria and Asian empires on the trade routes between Europe came on the agenda (Pamuk, 2005).

Before 1492, European ships remained confined to the periphery of the western end of the great trade routes of Eurasia. Before 1488, the Portuguese captain Bartolomeu Dias became the first sailor who flied his ship around the Cape of Good Hope at the southern tip of Africa. Previously most Europeans believed that there was no sea route to the east. Although individual European merchants like Marco Polo, had traveled to India and Asia in the Middle Ages, in 1500 European rulers and traders were able to project a substantial presence outside Europe itself. In the eastern Mediterranean, the Ottoman Turks, who claimed the great Byzantine city of

Constantinople as its capital and called Istanbul, followed sweeping forward in the Balkan Peninsula. As of 1500, they had taken all of the Balkans and Greece, in another 60 years; they extended Hungary and almost Vienna (Goldstone, 2008).

Although gold and ivory from Africa, furs and glass objects from Europe were assessed from Asia, Europeans had little of their own routes to trade costly spices, silks and other Asian products they demanded. Huge mines and resources of silver and gold of the Americas were enough to allow Europeans to increase trade with Asia greatly. Through conquest, slavery and the spread of diseases that decimated the native population, Europeans took control of the wealth of the Americas.

Technical changes involving cotton textiles, iron industry, and the introduction of steam power constituted the heart of the industrial revolution in Britain, but these developments were not affected the only industries. At the same time James Watt perfected the steam engine, his illustrious compatriot Adam Smith wrote *Wealth of Nations* and the great increase in productivity obtained in a pin factory simply by specialization and division of labor (Cameron, 1993). The improvement of modern scientific and engineering techniques as a normal part of economic output has definitely transformed the economic growth. In the late eighteenth century, the pioneer economist Adam Smith noted that, historically, when countries by specializing in certain products and tasks make efficient use of their traditional resources, including labor, economic growth occurs. New inventions have continued to transform economic and military balances around the world, from 1850 until now (Goldstone, 2008).

### **3.2 International Integration and Trade**

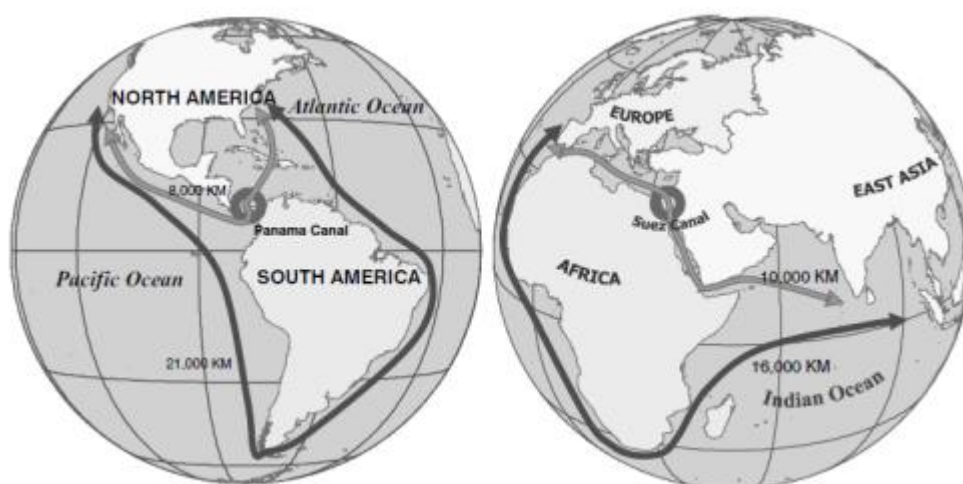
Columbus' discovery of the America helped the Europeans to obtain commercial channels in Asia. Before contact with the New World, Europeans had relatively little of value to offer to world trade. After the transition to capitalism in Europe during the 16<sup>th</sup> and 17<sup>th</sup> centuries, European economies began to expand into other areas where pre-capitalist or non-capitalist production had prevailed. For this reason, subsequent histories of the remaining areas of the world, with the possible exception of Japan, cannot be considered solely from the point of the internal dynamics of each society. Each of these countries has to be inserted in the context of the capitalist world economy. Their stories have to be examined in terms of the complex interplay

between the forces and social classes and state structures and external forces related to the global economy, while the European territorial expansion, the merchandise trade long distance and logic of capital accumulation on a world scale progressed in a very quick manner (Pamuk, 1987).

Although long-distance trade has existed at least since the beginning of civilization, its importance grew enormously and rapidly in the 19<sup>th</sup> century. For the world as a whole, the volume of foreign trade per capita in 1913 was more than 25 times greater than it had been in 1800. The period of most rapid growth occurred between 1840 and 1873, when the total trade increased by more than five times faster than population growth and three times faster than the increase production (Cameron, 1993).

Trade flows between Europe and India and the Far East; Egypt began to build its first railway as early as 1851, before Sweden or Central Poland, and by 1914 had a remarkably extensive network covering the whole country. Commercial activities between Asia and Europe was also responsible for the Suez Canal, opened in 1869, which had both favorable and adverse effects on Egypt, Sudan, Arabia, Syria, and Iraq (Rodrigue, Comtois and Slack, 2006).

New discovery and new route structured to help these flows, such as Panama and Suez Canals. Panama canal reduced sea distances between the Atlantic Ocean and Indian Ocean and by the Suez Canals destination came down from 16,000 Km to 10,000 Km. Also the distance between the Atlantic Ocean and Pacific Ocean declined from 21,000 Km to 8,000 Km. That was a great exchange. These constructs influenced the decline on transportation cost ordinary commodity expenditures. These are another revolutions in transportation were routes and trade (Figure 3.2).



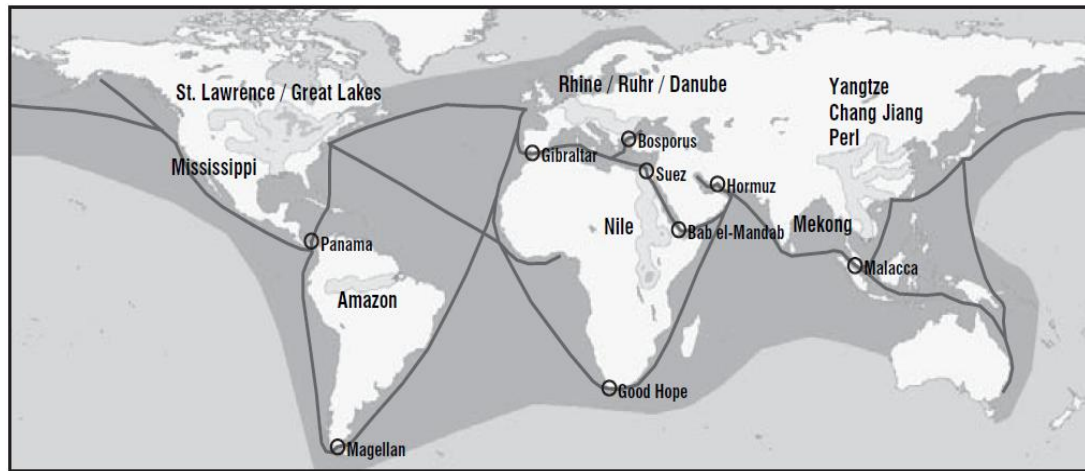
**Figure 3.2 :** Geographical Impacts of the Panama and Suez Canals (Rodrigue, Comtois & Slack, 2006).

The liberalization of trade accompanied the growth of transportation since transactions involve movements of freight, capital, people and information. The international movement of people and capital, migration and foreign investment accelerated rapidly. In the early 20th century, it was possible to speak meaningfully of a global economy in which virtually every inhabited part participated at least minimally; across Europe was by far the most important. In fact, the dynamic center stimulated whole.

The contemporary commercial settings marked by increasing free trade and profound technological, industrial and geopolitical changes. The bulk of international trade occurred within economic blocs, especially the European Union and NAFTA. Other significant flows were between Asia/Pacific c. moreover, North America (especially the United States), between Europe and North America and between Europe and Asia/Pacific. For several reasons, such as geographical proximity (Eastern Europe), energy (Middle East) and colonial legacy (Africa), the European Union has significant trading linkages with the rest of the world.

These global flows and accessibility went to connect all over the world together by active and lowest transport routes, new networks and nodes on a global scale and along with new canals, tried to reduce the distances to decline the costs (Figure 3.3).





**Figure 3.3 :** Domains of Maritime Transport (Rodrigue, Comtois & Slack, 2006).

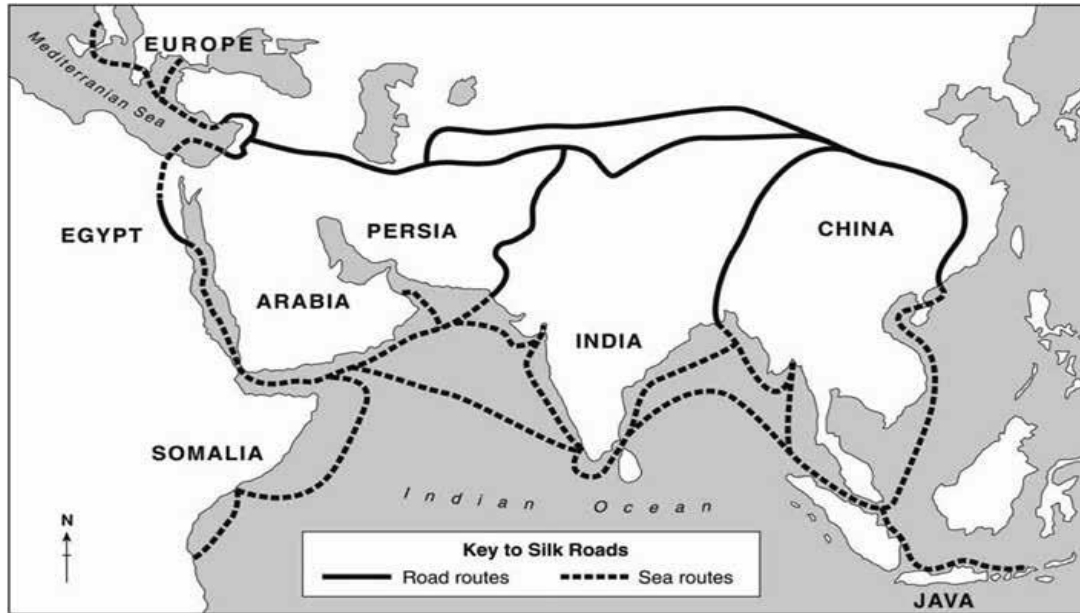
Due to these developments, regionalization has been one of the dominant features of global trade. The bulk of international trade has a regional connotation, promoted by proximity and the establishment of economic blocks such as NAFTA and the European Union. Providing an influence connectivity in these blocks assigned to recent infrastructure projects like TEN-T in EU, TRACECA between EU and Asia and CANAMEX between the Canada, USA and Mexico within the multimodal infrastructure modes such as roadways and railways. It is claimed that connectivity as the route is going to be extensive to economy and trade, cultural, special and political relationship between not only at the countries but also among the continentals. Same as the Silk Road in the ancient era in the world.

### **3.2.1 Silk Road, the first trade route in the world**

The Silk Road is the old historical trade route with different expanding road and sea linkages from the East to the West. This 5000-mile long trade route was possibly the world's first network linking Asia, Europe and Africa which Connects to the two great civilizations of Han China and Rome from (206 BCE-220 CE). This road has brought diverse trading, economic, cultural and regional impressions to the geography of the world (Figure 3.4).

According to the Chinese resources, recognition of the Silk Road by China Empire was in the 138 B.D. By sending one envoy to the neighboring country to research about its geography, power and trade conditions to find how they dominate weak ones. Opening of West by Chinese began by recognizing the enemies on that side,

after all resulted in the trade (Taşağıl, 2008). By this way, this route became the most important connectivity routes between the empires, civilizations and regions for the next centuries. The first information of silk farming of the Roman Empire and the West in general, is based to Aristotle (384-322 BC) (Tezcan, 2014)



**Figure 3.4:** Silk Road (Akiner, 2011).

First time when enter the Silk products to the Roman Empire was about in the year 46 BC; the Roman after conquered Egypt in 30 BC, began to explore ways of direct trade with the East. Before the Romans learned it, silk and goods sold back to the Romans by Partha, and this was happening to parthians quite costly. The Roman Empire in the West, while the East Iranian Parthian Empire was considered the beginning of the Silk Road trade also the East deal with the West. Silk Road investigators have traveled to the East to learn that route in the Parthia time (Tezcan, 2014).

The Silk Road was not just a road. In actuality, it was a network as with many links and branches in various parts of Central and Southern Asia and Eastern Europe, which was most active in the 7th-9th centuries. It met two sides, by that changing the nature of commerce in the medieval and Renaissance world (Neville-Hardy, 1997; Bonavia, 2002). This road had brought diverse trading, economic, cultural and religious influences to the geography of West and East. These were proclaimed as the

road of silk (Silk Road) by the German geologist and geographer Ferdinand von Richthofen in his 19th century book China.

Silk from China, spices from India and Southeast Asia were the two main import commodities for the Mediterranean. Trade was concentrated a lot on these two commodities. In order to these trade activities, The Seljuks, Rome, China and India civilizations were in relation to each other.

Between 2th century BC and the 4th century A.D, in the Asian Hun State, this route ended in Antioch (Antakya), a Roman city then in Syria (İsayev and Özdemir, 2011). In the same manner, all military and political events that located along the Silk Road had direct effects on commerce and the economy. To prevent the adverse effects, empires and states tried to contract agreements together. Making sure each side to ensure the security and salvation of travelers and caravans, also built bridges, safe roads and inns to shelter them were some of the necessities. According to these, occupations, indicated variety developments in infrastructure in towns and cities that located on these routes.

Today Turkey with current boundaries was within the Silk Road route throughout history. The main cities of current Turkey, through the Silk Route were; Kars, Erzurum, Tokat, Ankara, Afyon, Denizli (Laodicea), Nazilli (Mastaura), Sultanhisar (Nysa), Aydın (Tralleis), Menderes Magnesias, Selçuk (Ephesus), and İzmir.

According to some resources, İzmir was the end of an Asia side of the Silk Road. The city with important location as a seaport, for the international trade along the history until now.



#### **4. INTERNATIONAL TRADE AND ITS INFLUENCE ON THE ROUTE NETWORK IN ANATOLIA OVER TIME**

Geographic and geopolitical position of Anatolia has maintained its significance throughout the history as a main passageway, by bridging the western and the eastern worlds. Mid-Anatolia situated in a central position from the Assyrians epoch to today from point of the commercial activities.

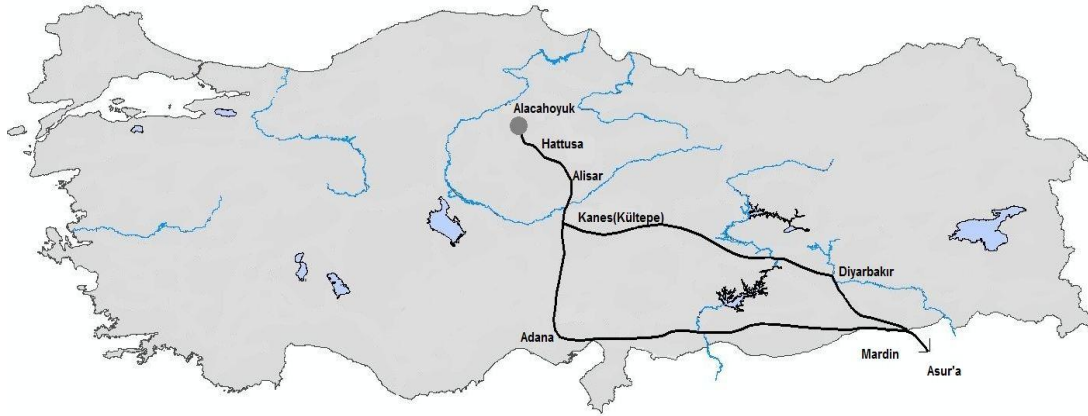
##### **4.1 Historical Background of Trade and Routes in Anatolia**

An active and abounded network of routes crossing over Anatolian territory. Anatolia was originally established in the Assyrian Trade Colonies around 2000 BC. After used by the Hittites and the Lydians, by serving both military and trade purposes. Some routes achieved various names such as the Royal Road, the Roman Road and Byzantine Road during different times and finally developed into the name of Silk Road during the middle Ages. Between the 11<sup>th</sup> and 14<sup>th</sup> centuries, as the Eastern, cultures encountered those of the Mediterranean over the Silk Road, a variety of monumental inns and bridges constructed throughout the Anatolia. Anatolia was significant junction between East and West in terms of commercial routes. From the ancient ages, the earlier settlement centers began to appear in Anatolia.

The first settled the state in Anatolia that included of three main cities, Malatya, Kayseri, Yozgat triangle space, whom was occupied by agriculture and animal husbandry some were merchants, like what is done in other settlements in the world (Figure 4.1).

Being used to known as its presence went back to the near Sumerian period, since the first cities appeared in the world history, Kayseri is one of the oldest production and commercial center of the earth (Karagöz, 2009; Kınal, 1989). By passing time, merchants of Assyria state and north of the Mesopotamia began to trade with them that caused to establish two main road network on that region, Assyria-Diyarbakır-Malatya-Kayseri or Assyria-Urfa-Adana-Külek (Bölen, 1978).

First exchange activities began in this region by trading agriculture productions to other places. In this manner first trade route occurred in the world. Assyria - Abd-al Aziz – Cebel – Harran – Malatya (Melitene), Darende (Timilkia), Gürün, Pınarbaşı (Ariarathiae), Ekrek and ended in Kültepe (Kayseri), was the main trade route in Anatolia, which began from Upper Mesopotamia. There were three various lines terminating in Kültepe (Hülagü& Bolat, n.d).



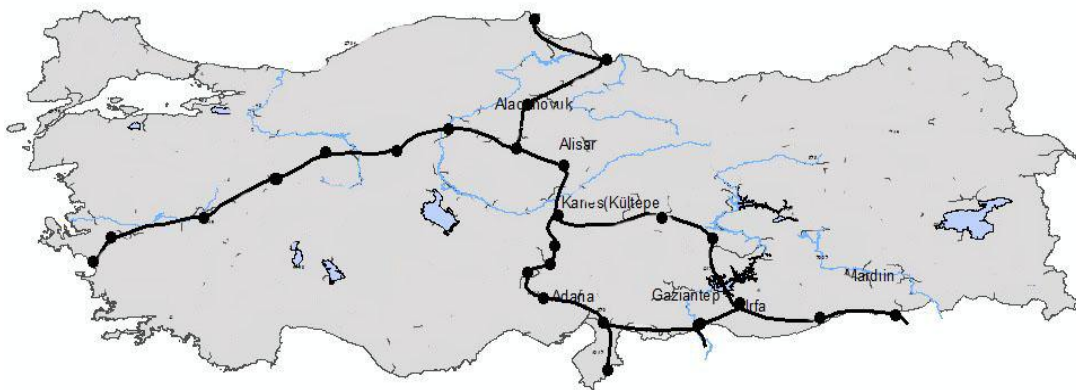
**Figure 4.1:** Asur Trade (first Trade Route) 20-18BC. (Bölen, 1978, p: 33). Redrawn by the author with ARC-GIS program.

Throughout Anatolia, small and great towns often found near the rivers. Most Anatolian watercourses, except for the Euphrates and Tigris, were almost useless for purposes of navigation. Moreover, in many cases, these rivers flowed through the gorges that were too narrow to permit even the passage of a road. Under these circumstances, communications were not particularly facilitated by the proximity of rivers. On the other hand, in a region of relatively low rainfall, the availability of water resources increased the agricultural production and thus permitted higher density of settlement. After all, by improving the cities connections have developed and spread out around the Anatolia in the next epochs. According to Figure 4.1, Alacahoyuk, Hattusus, Alisar, Kaniş were some main settlements of that period. According to Kinal (1987), there were market places of Assyrian merchants in the Kaniş (Kültepe), Hattuşa (Bogazköy reputation in this era name) and Alişar as central Anatolian cities.

## 4.2 Process of Route Change in Anatolia

In Anatolia throughout the historical process and each political organization, creating a route system that is secured towards its own requirements. This convenient location of the Anatolian Peninsula provided the opportunity for it to become one of the key spots that ensure the connection between the east and the west with the Silk Road system.

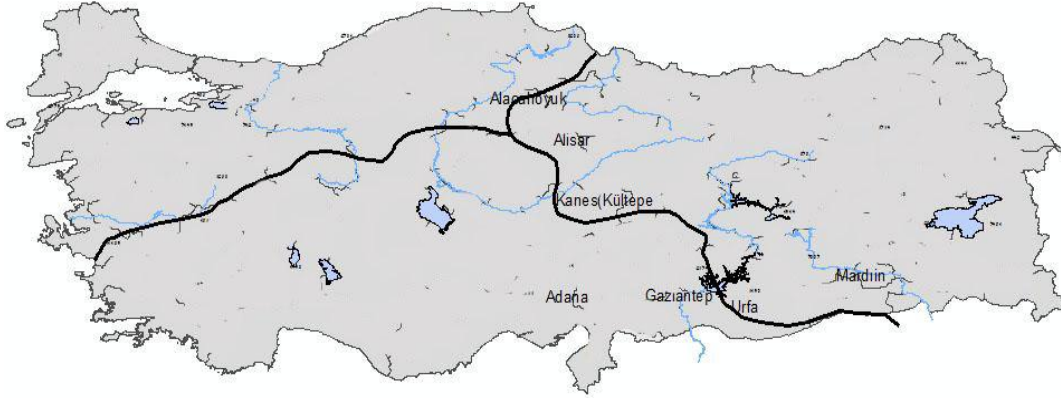
Landlords in Anatolia were essential elements in commerce during the Hittites which were used by the Assyrian merchants steady for the commerce relations between Anatolia and Mesopotamia (Hülagü& Bolat, n.d). The Hittites' roads, in the 18th BC century were: Kanes, Erkilet (Archala), Dadsun, Emmiler, Yozgat, Hattusas (Bogazkoy). In the (Figure 4.2). Ephesus and location of these days, Sinop are the new settlement area.



**Figure 4.2:** Routes in the Hittite Period during the 18-12 BC. (Bölen, 1978, p: 39).  
Redrawn by the author with ARC-GIS program.

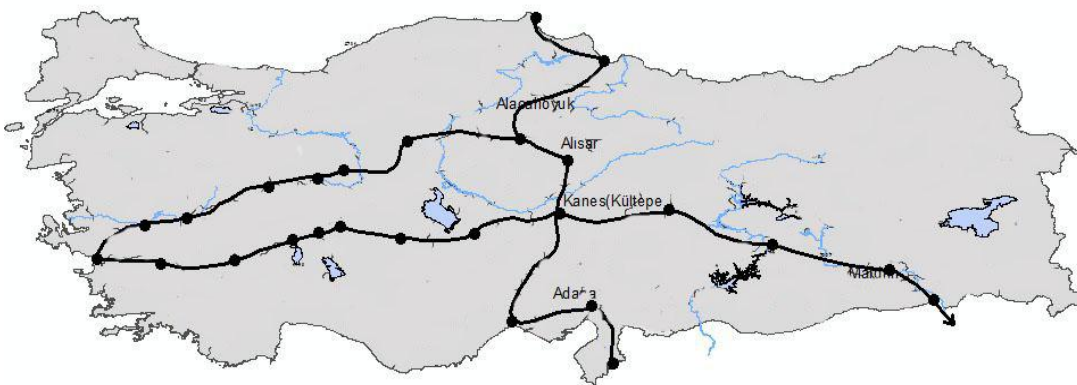
As a result of the Aegean migration, old connectivity routes oriented them to the Aegean region. Also by reaching the north sea and seating routes in the north and south of the Anatolia and connectivity routes between them occurred the more wide expansion route system. This spread development of settlements reformed the connectivity directions. These changes were led to appear some new settlements through the routes. For further development, town's commercial activity has been required to connect to a intensive level of the commercial road network.

In the Ferity Period (18-12 BC), according to the route map of that time, which showed in Figure 4.3, some routes declined and someone continued to sustain their importance in main direction.



**Figure 4.3:** Trade Route in the Ferity Period, 18-12 BC. (Bolen, 1976, p: 47).  
Redrawn by the author with ARC-GIS program.

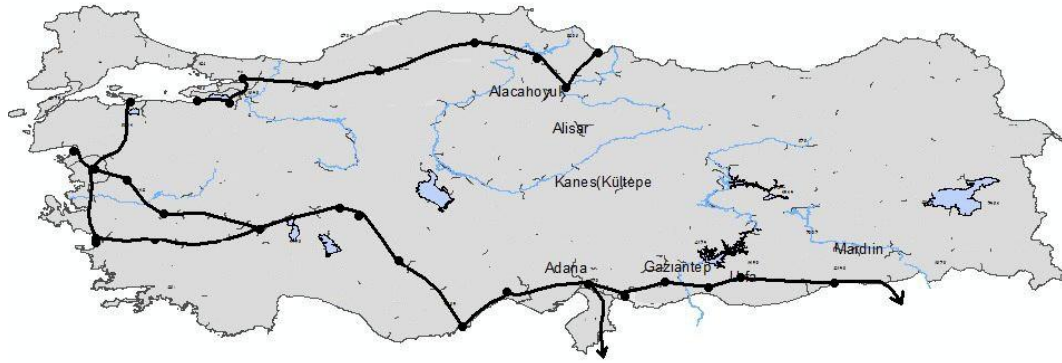
Asure route remained same as the past. In addition, two main ports in the Black Sea and Aegean Sea coast had a trading port role in the international commercial activity. The nearest area to Sanliurfa, Mardin Izmir, Samsun and center area of Anatolia were the most settlement places during that time. Over time, transport links between the Anatolia and Rome kingdoms because of wars was important. Developing along the northern coast of this road extends to the Anatolian Amasya over the Izmit-Bolu-Taşköprü (Figure 4.4).



**Figure 4.4:** Persian and Alexander Routes during the 12-7 BC. (Bölen, 1978, p: 51).  
Redrawn by the author with ARC-GIS program.



Greek colonies on the western Anatolian coast evolved the development of trade between the West and western Anatolia and internal transport links was established between Anatolia. Military as well as the challenges, the presence of trade relations between them indicates the presence of a specific interaction between the nodes. (Figure 4.5). Thus, the locations of the nodes on major trade routes in which we see the trend systematized, protection have been selected from the convenient location (Bölen, 1978).



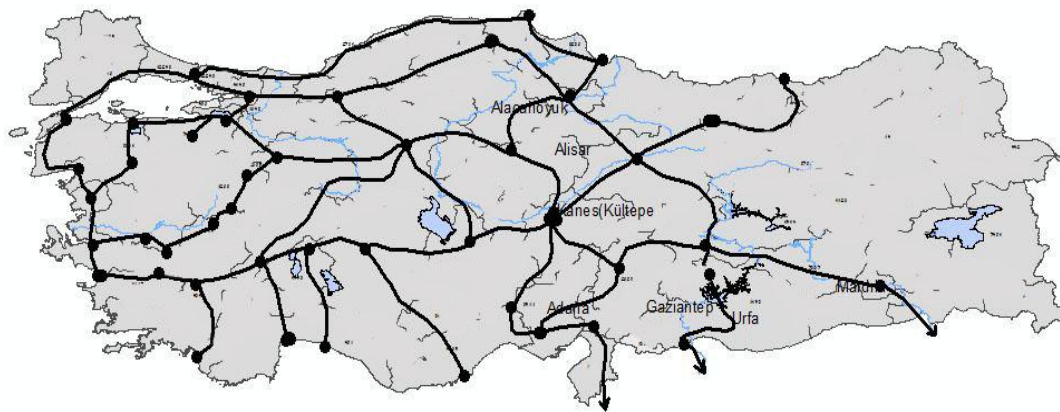
**Figure 4.5:** Trade Route in Bergama Period, in the 3 BC. (Bölen, 1978, p: 55).  
Redrawn by the author with ARC-GIS program.

During the Roman period, remainings from the previous period, and the presence of nodes while maintaining the focus on the west coast, right into, worked especially with the establishment of the new city on transport axis. Urbanization increased rapidly. Trying to meet local needs in the country, even though grain requirements of the important nodes in the coastal area covered by the sea in the Egypt, Aegean and Black Sea coasts.

Due to the (Bölen, 1978), Central government, in order to control of Roman culture and society perform, expansion of the transport system was tried to develop connecting way of the nodes to the main transportation routes. On the other hand runs to completion, previous periods in need of major transportation routes developed management, both military, and international trade.

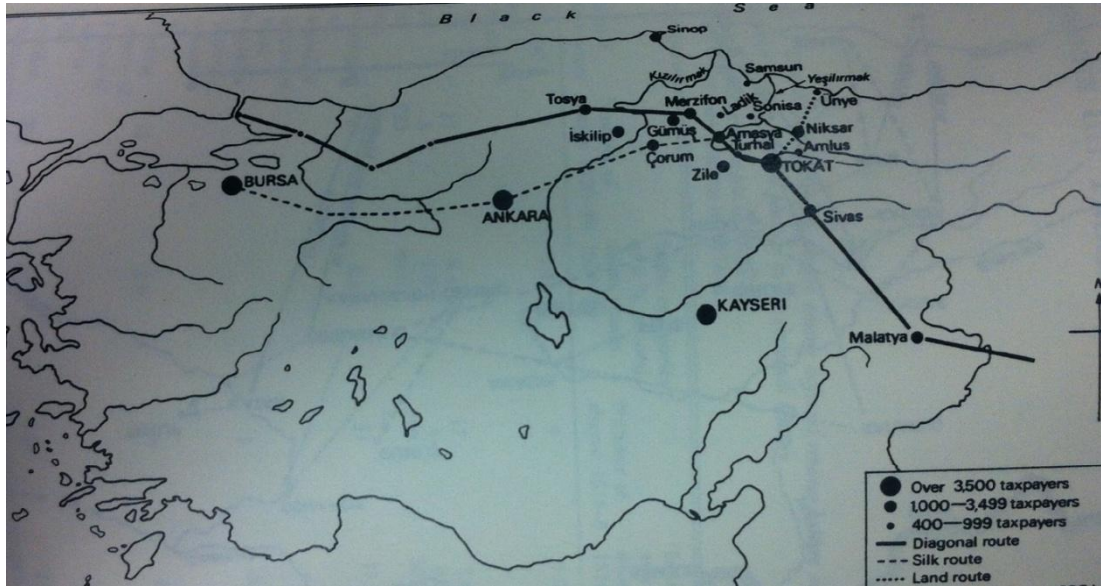
None of civilizations that have arisen around the Mediterranean have given due importance to road policy as much as the Romans. Roads of Persia, Assyria, Babylon and Egypt, not based on a specific plan for road construction, are closed roads. The reason of this might be that all civilizations have advanced around the

Mediterranean. In regions extending from Persia to Athens, from Byzantium to Alexandria the Mediterranean Sea has provided great convenience about transportation. The Roman also has taken the advantage of the sea, but then has given weight to land routes. Romans have built the most important routes of ancient ages. Placing importance on road construction more than all other ancient cities, Romans have built roads to link the four corners of the empire to Rome. They have constructed roads systematically beyond 5 hundred years long; from the years BC 300 up to 250 AD and they have used slaves and prisoners in road building (Bridges, 1968). Roman routes differ from all other ancient roads in point of both as technical ingenious and as its scale. Road is the most interesting feature of Roman Civilization. Process of tiling floor with big black stones has been performed in 2th century BC. Reaching to Benevento in empire period, Via Appia has been lengthened afterwards until the port of Brindisi and has played a crucial role in the increase in trade with near eastern countries. Constantinople (Istanbul), the capital of Byzantium as the second half of the century, the confluence of the roads, where the most important collection of merchandise trade for trade it sees the task as "golden bridge between East and West"(Figure 4.6).



**Figure 4.6:** Trade Route in Rome Period, during the 2 BC.4 AD. (Bölen, 1978, p: 59). Redrawn by the author with ARC-GIS program.

It is indicated in the Figure 4.7, Istanbul was a "direct trade relations with India from China and Central Asia and further west before installing shipped raw silk from Istanbul, and it was also a great trading market for silk and other goods" (Tezcan, 2001: 76; Tezcan, 2014)



**Figure 4.7:** Towns and Trade Routes in Roma Period, (Inalcik & Quataret, 1994).

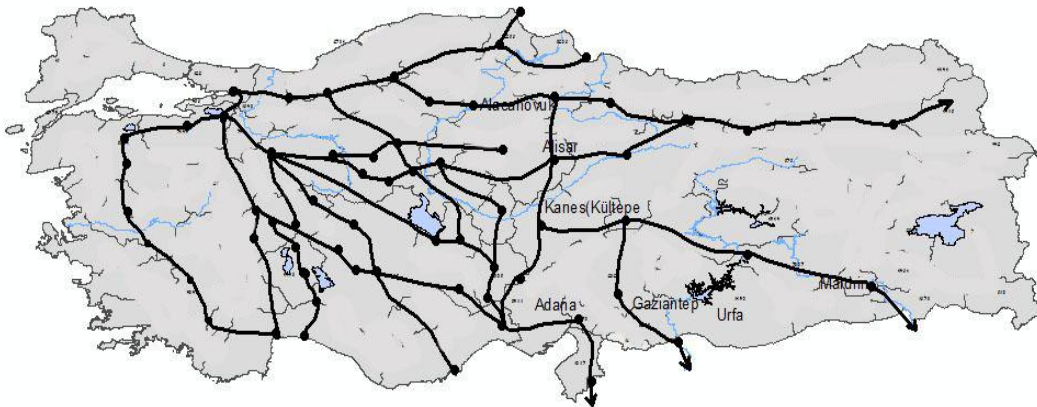
The Roman and Byzantine Empires organized into large path zones the borderline and coastal regions, and the provinces in the interior, which formed economic units on the main trade routes (Inalcik, Quataret, 1994). As from the middle of the 2th century BC, road building to link border regions to the zone of the interior have been attempted. Emperors have maximized road construction in a first and 2th century. Routes, which linked Europe to Asia and Africa, have been realized, and they have reached from the Euphrates River Valley to Sahara, to the English Channel. East part of this road network has started from Hazer Sea, has crossed the Caucasus Mountains, and after it has reached to Black sea near Trabzon, has arrived Sinope from the coast, wherefrom culminated to Byzantium via Dardanelle Route (Bridges, 1968)

In addition, King road was ancient road in the Roman era, and it was started from Sardus of Lydia linked Susa capital of Persian Empire by passing through Anatolia (Hülagü& Bolat, n.d).

Iran dominance on the East West transit route continued also in the Byzantine period. In the Sassanid era tensor silk production started in the Byzantine as well as Iran anymore. Byzantium, allied with the Ethiopians were in the competition with the Sassanid in cooperation with the Yemen, in order to take the control of the silk, spices and perfume trade between the India and East Asia (Tezcan, 2014).

With Byzantine Empire, settlement system appeared to be under the influence of a new power center. For 1000 years, at this stage, including the evolution time of social structure and organization of space, agriculture was the main activity until Ottoman Empire. Selecting the Istanbul occurring at an important crossroads of trade routes between Asia and Europe, as the main administrative center of the Empire, to develop on a large scale and variety of provincial administrative center, religious, for commercial reasons, because of attachment here, over time, made Istanbul as the major center of the country (Figure 4.8).

Agricultural trading activities, land ownership and production were under control of central government. The basic idea was determined to meet the requirements of the capital, Constantinople (Istanbul); the most major ones were grain and industrial products. This situation continued into the Ottoman period (Bölen, 1978). One of the most substantial trade centers in Anatolia was Kayseri (Casseria), which was located at the trade crossroads. Kayseri was a connecting point of Tabriz-Alaiye and Tabriz-Ayas, as a side or sub-way of the Silk Road. In addition, linkage of Antalya-Erzurum lines prepared via Sivas and Kayseri (Hülagü& Bolat, n.d).

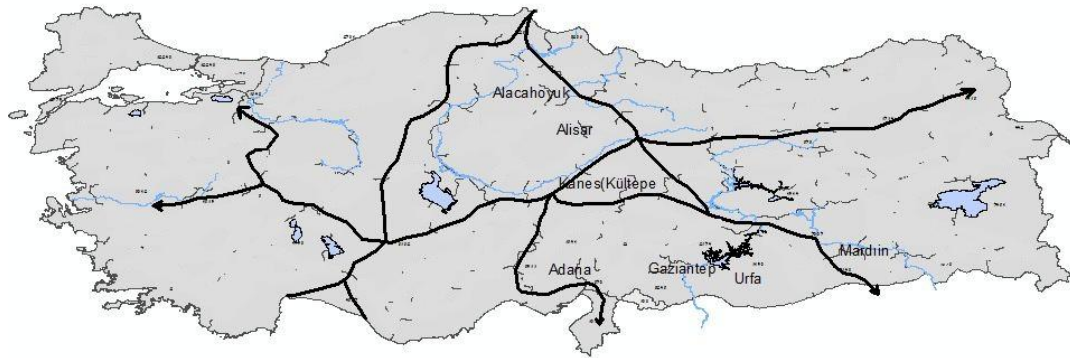


**Figure 4.8:** Trade Route in Byzantium Period, during the 2 BC and 4 DC. Century (Bölen, 1978, p: 65). Redrawn by the author with ARC-GIS program.

The trade routes that encircled the Anatolian territory during the Middle Ages provided a favorable climate for the encounter of cultures as well as trade activities. after the War of Malazgirt in 1071, Turks domination in Anatolia began to locate there; villagers, tradesmen, artists, craftsmen and religious leader immigrated to Anatolia as groups. Following these years, the cities like, Diyarbakir, Sivas,



Erzurum, Trabzon, Kayseri, Konya and Malatya, all of which are integrated to the Silk Road, obtained high significant role in commercial activities (Figure 4.9). The trade roads of that era were as three major route (Hülagü& Bolat, n.d).



**Figure 4.9:** Trade Route during the Seljuk-Byzantium Period, (Bölen, 1978, p: 70).  
Redrawn by the author with ARC-GIS program.

Starting from the 11th century and onwards, during the Seljuk, Beylik and Ottoman rules, a large number of monumental lodging structures and bridges were erected on the Silk Road. Those structures that have arisen over the Silk Road of yesterday laid the ground for intensive interactions between cultures and reached our day as unique examples of the universal heritage of humankind. In century XIII and XIV, Seljuks set an international commerce fair “Yabanlu Market” in a not-so-distant location to Kültepe, Assyrian trade colony (Karagöz, 2009; Sümer, 1985). That market was fair for all traders whom came from other regions and abroad of Anatolia. With these changes, fair traders could change their goods together.

There are two main trade routes in Anatolia. One is in the direction of East-West, the other is in the direction of South-North. The road in the direction of East-West starts from Antalya, passes through Burdur, Isparta, Konya, Aksaray and Kayseri, links up with the road in the direction of South-North in Sivas and arrives at Tabriz crossing from Erzurum. Second road on the other hand starts from Sinop Port, passes through Tokat and after it joins with the other road in the direction of East-West in Sivas, reaches to Aleppo crossing from Malatya (Karagöz, 2009; Sümer, 1985). Seljuks and Ottomans carried out similar production and commercial policy in the same way as previous states, dominated the regions on which these roads crossed. This product and trading policy, which can be stated as transfer easternmost products to western, was pursued with Persian and India in the East, Caucasus and Russia in the North

and at first Venice and Genoese, afterwards other western states, France, Spain, England and Holland etc. in the West (Karagöz, 2009; Genç, 2005).

#### **4.3 Rise of Ottoman Empire and Influences on Anatolia During the 13-16th Centuries**

First stage in the 13-14<sup>th</sup> century: Ottoman Empire has not conquered the region yet. Little principalities, each correspond with one each Ottoman Sancak as size, had located in the region. This political fact has predestined the settlement structure, hence agricultural production technology, and limitation of transportation form (Tekeli, 2011).

Each principality has a relative small capital, which developed with limitation of managed surplus. Road system forms from caravan routes characterized as binding capitals of these principalities. Having multipartite political authority and quality of transit network blocks international trade. In consequence, there is no specialization in the non-agricultural production activity of cities. Center cities of principalities manufacture mainly for urban and people live in control field in the city. Settlements generate lower grade of principalities' capital city act mainly as a market for rural area. Even in coastal principalities the capital city states in the middle of the principality, but it is seen that port cities remained from the ancient period like Balat (Milet), Ayasuluk (Efes), İzmir, Foça preserved their features and made economic relations (Tekeli, 2011).

During the 1300-1600 when the Ottoman Empire was obviously and indisputably an economically self-ruling world-empire, agriculture and urban craft were the major production activities as well as all empires in the word. Industrial crafts were governed by a guild system, where production was in strict conformity with the norms of the state. Controlling the prices of food and raw materials were as well as the right of the merchants to associate in certain markets. Creating the integrated economy with enough foodstuffs and other necessities for Istanbul and other cities was the main target of the internal controls (Islamoglu-Inan, 1990).

Ottomans confronted a major issue since the end of the century XVI, yet Mediterranean Trade gave place to Atlantic Trade. (Karagöz, 2009; Akdağ, 1949) Although commerce with the French, British, and Dutch continued, commercial development went against for the Ottoman Empire, and then the wars at the end of

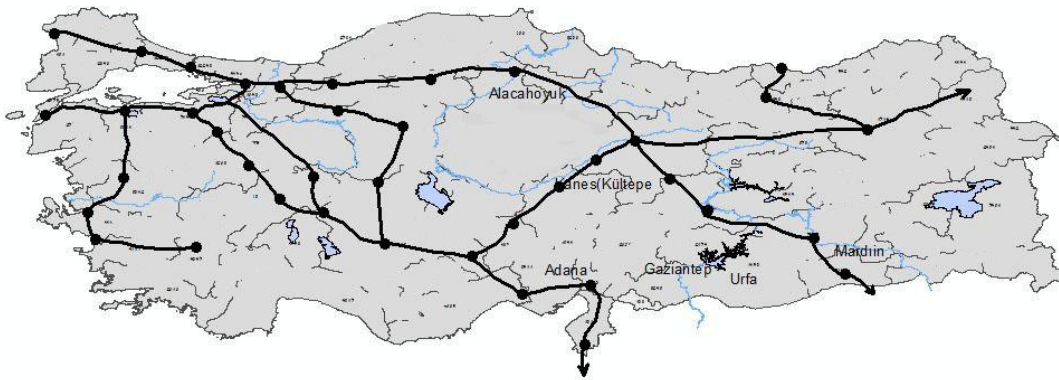
century XVII and at the beginning of the century XVIII greeted these conditions (Karagöz, 2009).

Islamoglu-Inan (1990) mentions that long-distance or international trade was existed just essentially in luxury goods. Ottomans, for a long time have benefitted from the international transit trade due to the special geographical location and empire's dominance over the Persian Gulf, Red Sea, Ports of Syria and all the trade routes in Anatolia. Taxes collected from the merchandise on the trade routes were a significant income for the Ottoman Empire. During 1500, Ottoman Empire as one of the world-empire was in expanding period. The new world economy in Europe, and indeed had many modes of contact-diplomatic, military.

Istanbul was the great transit center of the south-north trade pathway between the Black sea and Danubian ports, and the main cities of the eastern Mediterranean, Arabia and India. The Istanbul-based merchants imported manufactured goods of European origin, principally woolen cloth, and the so-called adjust goods, such as pepper, and other spices and dyes. Woolen cloth, ready-to-wear clothing and Bursa silk textiles were goods that Istanbul merchants and industries supplied from the Black sea and northern area which were also in great demand in Poland, Sweden and Muscovy. However, the major concern of the imperial government was to ensure a consecutive flow of the essential foodstuffs for the huge population of Istanbul (Inalcik, Quataret, 1994). There was no doubt that toward 1400's Bursa was reputed to be one of the great centers for silk commerce and industry. Another important city during 13-14th centuries was Izmir. At that century this city hadn't been invaded by the Ottoman Empire yet. The residents of the region were some "beylik"s (minor anatolian states at that epoch) that would turn to Ottoman Empire eventually. This political fact determined the settling strategy under the limitations of the agrarian production technology and transportation form of the age. The fact that the political authority was splited up and the quality of the road network enabled the international commerce to enhance. For this reason, cities didn't have any specialization on non-agrarian goods. The cities, which were the center of the beyliks, realized production only for their residents and vassals. Even the beyliks located on the coast had their central in the middle of their borders but not on the coasts. The coastal cities, which were left mostly from the antique era such as Balat(Milet), Ayasuluk (Efes), Izmir, Foça, carried the outer economic activities of the beylik (Tekeli, 1992).

In the beginning of the central government (1453 before) were within the policy establishing a balance between regional centers. Thus, one hand Amasya-Tokat-Ankara axis; the other hand, Bursa and Edirne undertook along the central axis of the task and thrive (Bölen, 1978).

During the 15-16th centuries, after the invasion of the region by Ottoman Empire during its enlargement era, there appeared two main consequences. One of them was that the agricultural outcome was begun to be detected by Istanbul by the “tımar” system. The road system changed its direction according to the new current direction of the outcome product. The radial road system including Bursa-Kütahya; Bursa-İznik\_Geyve-Göynük-Kastamonu, which was diffused to the Anatolia from Bursa, went into a serious transformation. Throughout time the centrality shifted from Bursa to Üsküdar following İstanbul’s function as the new administrative center (Figure 4.10).



**Figure 4.10:** Trade Route in Ottoman Period during the 14-16th centuries, (Bölen, 1978, p: 81). Redrawn by the author with ARC-GIS program.

The factor determining the Anatolia’s typology of settlement was meaning the organization of living area in relation to the long-distance trade. Ottoman state was the most powerful central government in this period; all nodes of the settlement system of administrative and legal aspects were connected to Istanbul. Locally specialized engaged in the production of nodes, locally specialized engaged in the production of nodes, also point to the existence of the systematized trend continues to grow in this period (Bölen, 1978). Due to the administrative intervention and other factors, food and raw material prices were kept low therefore; Europeans led to more accessible regions of the Ottoman Empire to achieve these good. This was



especially primarily raw silk imported from Iran, but increasingly produced it in Anatolia. (Faroghi, 1984)

It is recognized that in the field of foreign trade (capitulations) reducing power state employees in cities with local merchants to completely decline in industrial production of the domestic industry and leads to changes in the structure based on the old guild system. Investigation of mineral deposits and the operation of them has given to the jurisdiction of the foreign companies (Bölen, 1978). In a large amount, the changing of social relations of production in agriculture animated by the European market demands (Islamoglu-Inan, 1990).

Fifteenth and sixteenth centuries, in the volume of foreign trade was very limited. One reason is that the transport technology had not been sufficiently developed yet. Long-distance trade focused on the value and more light goods. Heavy goods, such as cereals in long distance trade only done by sea freight. Another reason for the limited foreign trade had been vast empire was an advanced division of labor within the government. The state also intended to keep alive this division (Pamuk, 2005).

#### **4.3.1 Caravan routes, transportation networks, rivers and seaports**

Following the Turk domination in Anatolia, trade within the Anatolia went to more progressively. By Seljucian states so many caravanserais and Hans were built through the trade route in regions to prepare the safety of the ways and structured some bridges with respect to facilitate the insurance of transportation and commercial activities which probably tested for the first time in the history (Hülagü& Bolat, n.d).

According to the functions and construction delicacy the caravansaries, state power of belonging period and military were building them. Shelter and security of the tradesmen's and travelers were the main mission of these structures. The caravansaries caused to remain frequently of trade activities at that time. Many caravansaries were built in the Seljukian period by the states with providing the restoration and conservation of them. This attempted help to continuing the permanent trade in Anatolia (Figure 4.11).



**Figure 4.11:** Trade Route, Regional centers and Caravanserais/Inns in Anatolia (Karpuz, 2008), redrawn by the author.

This situation started in the Seljukian until the Ottoman Empire era. The main purpose was to keep active the trading activities (Hülagü& Bolat, n.d).

Around the 1350, although the center of world trade once again changed south to the Red Sea, to Egypt and Syria under the Mamluks, Asian goods, especially raw silk, still followed the old route from Tabriz to the Anatolian ports of Ephesus, Antalya, and Trabzon (Inalcik, Quataret, 1994). By conquering the Istanbul and making it the administrative center, north-west side of the country was beginning to develop, main transport flows were connected to Istanbul. Due to the cessation of international activities, became unusable, the transportation policy of central power aimed for military targets and shaped by conquest (Bölen, 1978). There were two outcomes of Ottoman's control over an enormous area in terms of influencing the settlement system: One of this outcome was that agricultural surpluses have begun to regulate by Istanbul through manorial system and international trade have gained importance. The road system has transformed with reference to the new direction of product flow. Radiated from Bursa to Anatolia such as Bursa- Kütahya; Bursa-Iznik- Geyve-Göynük- Kastamonu, roads system has become Üsküdar- centered after Istanbul has been made capital city (Tekeli, 2011).

Caravans of Iran used diverse routes: the northernmost of them passed through Erzurum, while in southeastern Anatolia Diyarbakir constituted the main customs station. In the second half of the sixteenth century, prosecutors in customs charge of revenue in Diyarbakir were very powerful persons and well equipped to defend their position. Anatolia (Rum) and Aleppo Merchants on their way, passed from the district of Imadiye, the Jazirah, the sancak of Musul, and from several Iranian

provinces. On the other side, Iran merchants from Aleppo incorporated to the commercial route that passing southeastern Anatolia (Faroghi, 1984).

All caravans including the Ottoman domains by roads on the south of Van were required to go to Diyarbakir straight to Diyarbakir, let them open their bales neither in Van nor in Hakkari. As well, traders could take their mains in Birecik. They were going to Baghdad by way of the Euphrates, a way without officially customs barriers. A large caravan was composed of traders from Baghdad took to the river and against the rules disembarked in Raqqa, apparently through pass Urfa and Diyarbakir. Iran caravans within the Ottoman Empire usually selected the way to Bursa and Istanbul (Faroghi, 1984). In 1589, raw silk were taken from the production area after passing through the Qazvin, capital of the Safavid State. Overland of Anatolia to Europe, from 1589 the new capital of Isfahan instead of Qazvin applied this role. By shipping from there to the Anatolia or South to the Persian Gulf after taken to the Aleppo or caravans directly or through caravans of Aleppo and Izmir were sent to Europe (Yanar, 2014).

Three main routes linked Istanbul with the caravan cities of Anatolia. The most famous was the road connecting Istanbul to Aleppo and Damascus, which travelled by most Istanbul and Anatolian Muslims undertaking the pilgrimage to Mecca. The road skirted the central Anatolian dry steppe, with Akşehir and Konya as main stops. Then the Taurus Mountains traversed, and the road entered the hot plain of the Çukurova, where a stop was made in Adana. From there onwards, caravans passed almost of the Mediterranean, through the pass of Karanlık Kapu, and then headed due east to reach Aleppo, one of the empire's most important commercial center. From there, pilgrims and merchants traveled directly to Damascus (Inalcik, Quataret, 1994). It served for different purposes in the center of transportation management system that develops different axes. Military roads, the Pilgrims routed linking Istanbul, Jerusalem with post roads that following the passage of Istanbul-Konya and Kilikya (Gulek) axle. During this period, the most important trade routes were; Sinop and Trabzon form north passes through Sivas to the İskenderun port in the south extend to Konya in the east (Bölen, 1978). Exporting from Karadeniz and Aegean regions caused to develop these ports and linkages between them through the center regions.

As Aleppo linked to Istanbul, it was also connected to Baghdad by a well-travelled caravan route, which followed the course of the Euphrates. The traveler might elect to traverse the fairly well urbanized southeastern section of Anatolia, and by way of Birecik and Urfa, reach Diyarbakir and Tabriz. In addition, Aleppo connected with Mediterranean Sea routes by way of Iskenderun and Payas. In addition, there was a less important route from Aleppo to Tripoli, used by European merchants purchasing Syrian silk. (Inalcik, Quataret, 1994) Trade caravans are mostly used east-west transportation route direction: this axis follow Erzurum and Diyarbakır- Sivas-Tokat-Kayseri-Konya-Ankara-Bursa-Afyon-İzmir or İstanbul-Edirne-Selanik direction (Bölen, 1978).

Edirne was as important as İstanbul, as a node of the Ottoman system of caravan routes; for here, the traveler arriving from the capital and Bursa (by way of Gelibolu) could make a choice between connections to Moldavia and Wallachia by way of Sliven to Belgrade or Sarajevo, and to Durres (Durazzo) on the Adriatic coast by way of Salonica. These routes linked the Rumelian provinces with central Europe and Italy (Inalcik, Quataret, 1994).

Sivas, which was the major cities, located on the junction of major trade routes from north-to south and east-to-west, was specialized in wool and cotton weaving; Diyarbakir, located on the route Trabzon-Mosul-Baghdad specialized in textile and leather manufacturing; and Ankara specialized in the production of hardware and accessories for caravans.

Bursa's fame in the international market must be backed to the middle of the fourteenth century. The granting of trade privileges to the Genoese in 1352, and the Ottoman annexation of Ankara in 1354, were important steps in this direction. In addition, it is interesting to note that in the second half of the fourteenth century the Ottomans concentrated their efforts on taking control of the principal centers of the silk route to the east, namely Ankara (1354-1362), Osmancik (1392), Amasya (1392) and Erzincan (1401). This daring push in the way to Tabriz brought the ambitious Ottoman sultan Beyazid I in conflict with Timur at the battle of Ankara in 1402. What is clear is that the Ottomans were always concerned with keeping the silk route open or maintaining it under their control. Under Selim I, Ottomans occupied Tabriz for the first time (1514). The local dynasty of Gilan, one of the richest silk-producing provinces of Iran, always sought Ottoman protection until Shah Abbas I eliminated

its independence in 1592 (Inalcik, Quataret, 1994). According to Yanar (2014), there was another way except of the Tabriz or Qazvin to the south of Anatolia later to Halep route. The main routes through the horizontal highway reaching the Ottoman Empire through Tabriz was as follows; the northern route passed through Erzurum. Diyarbakır was the customs gate in Southeast Anatolia. Cause of the Ottoman-Safavid wars, using over Diyarbakir and Erzurum route complicated greatly; Aleppo as an alternative warehouse began to gain importance in transit trade in the sixteenth century.

Erzurum and Diyarbakır where close to the border were the major entrepôt trade points with Iran. Diyarbakır connected to Istanbul only by rather circuitous routes. On the other hand, the connection between Istanbul and Erzurum compounded one of the main corridors of Anatolian commercial traffic. If a merchant or traveler from İstanbul set out in the direction of western Iran, he had a choice of two routes: across the steppe to Ankara by way of Eskişehir continuing through an area lacking of main settlements until he reached Tokat. The alternative was through the hill chains of northern Anatolia, cross the Kızılırmak over a unique bridge in Osmancık and the reach Amasya had been an entrepot of the silk trade and an occasional residence of sultans in the 16<sup>th</sup> century. However, by the mid-seventeenth the town had gone through some very difficult times and its population fell by half. From there it was a short distance to Tokat, the main commercial center along this route, famous for its textiles and copper work. By contrast, the next commercially significant stop point, namely Erzincan, was a relatively modest town. The border entrepot of Erzurum at one time in the 16<sup>th</sup> century was all, but deserted as people fled from continuous warfare along the Ottoman-Iranian frontier. By the late 16th century, the town was recovering, and this continued throughout the 17th century, in spite of probable hesitations due to renewed warfare (Inalcik, Quataret, 1994).

Bursa became a worldwide-recognized market between East and West not only for raw silk, but also for other Asian goods because of the revolutionary changes in the network of world trade routes in the fourteenth century. By this time, under the Mongols, Tabriz had assumed a central role in world trade. The city became the great trade center for Asian trade, over-shadowing Baghdad and other Near Eastern outlets of world trade. The trade route from Tabriz followed the Erzincan-Sivas “imperial” route to Konya or to Ayas (Lajazzo) on the harbor of Iskenderun, which had become

the main outlet for Asian products under the Mongols. From Konya, caravan routes reached, via Denizli, the ports of Ephesus or Antalya. The amazing evidence of this boom in the series of monumental caravanserais built during the period on the caravan routes in Seljuk Anatolia. Western merchants obtained Asian products, silks and spices, from this port. Through this network of international trade routes, which experienced abnormal development under the Pax Mongolica, Asia Minor became a vehicle for world trade and experienced great prosperity. Italian merchants who were settled in Tabriz could exchange their woolen cloth there with Iranian silk and Indian spices arriving via Hormuz and Baghdad (Inalcik, Quataret, 1994).

According to Faroghi (1982) land road transportation, whether by camel or wheeled carriage, had a significant importance, as the cities at least of Ottoman Anatolia were major centers. There are considerably few port towns in Anatolia during the Sixteenth century. Bursa was linked to the Sea of Marmara via the little port of Mudanya. Its trade was depending to the arrival of caravans rather than arrival of ships. Some important trade center like Kayseri, Ankara, Tokat, Gaziantep, and Urfa were accessible only by land routes. Even Izmir, as a large port city with its rapid growth of the seventeenth century, was in fact good arriving place where caravans from Iran and other places were sold and later transferred from “ships of the desert” to normal ships.

#### **4.4 Ottoman Empire and Industrial Revolution in the 17-18th Centuries**

The central and provincial administration, economic-financial affairs, culture and social life were subjected to rapid changes in Europe at the 17th century. Even the stage presence of the great generals in Europe in the early eighteenth century was among the consequences of this evolution. The Ottoman Empire’s neighbors were also subjected to great change. Ottomans had implemented the manorial system ably until the end of the 16th century, thereby they had succeeded in both organizing agricultural production in the best way and had built up an enormous and strong army (Timariot) rest on the demesne. Through the manorial regime, the Ottomans had expanded their territories by winning many victories. There has been developed a settlement system compatible with the conquering character of the Ottomans until 16. Century (Dinler, 1994).

In the 16th century, the Ottoman society in the feudal order, depending on the poles of the technology of the feudal order had a quite balanced settlement organization that were integrated itself (Tekeli, 2011). During the development of the Ottoman Empire with the technological facilities in production patterns, effort and soil that are factors of scarce production. Such a production order in the waste product that is controlled can be increased by a) controlling the land and enlarging the labour b) controlling of land and labor with the use of them in a more rational way, which are the organizational problems. The soil in such a scheme and the controlled group (labor) was provided by enlarging the path of conquest. Conquest itself as an organizational problem, to control the waste products of the places conquered and ensuring the integration of the system was another organization that problem with transport technology to remain constant. The organization, therefore, increased the control group means requirement and opportunity a larger urbanization.

In this settlement layout, a relative altitude has appeared between settlement centers in the form of capital cities, regional centers, market cities and villages. The empire's economic force has been based on regional centers, which spread in regular distances due to an expansionist policy pursued, by domestic control and organization.

The population of these cities, which located at the crossroads of major trade routes, has varied from 20.000 to 40.000 in the 16th century. Between the years of 1520 and 1535, while the population of Istanbul had increased to 400.000, in almost the same years, the population of Sivas was 18.000, Bursa was 40.000, Diyarbakır was 12.000 and Edirne was 22.000. These regional cities not only have served a function in social, but also have been a cultural center one each. This urban relative altitude has been seen also in coastal cities (Dinler, 1994).

Aegean Region has lost its significance relatively in the classical Ottoman system. According to Barkan's estimations, despite of the fact that 40%-50% increase in population of Anatolia between the years of 1520- 1580, Menteşe Sancak in that region has lost population; in addition to this Karesi, Sarıhan and Aydın Sanjaks' population have remained about constant. The decrease of the region's relative importance could be explained through that surplus products have stayed out of the region (Tekeli, 2011). As capitalism began to spread across the Europe and new forms of foreign trade appeared, İzmir went into a rapid development and turned to the most important foreign trade center of the Anatolia. Agrarian goods such as the silks of Bursa and Iran, the angora wool of Ankara, the leather of Edirne, the olive

oil of the region, semen querci, opium, wheat, cotton etc. were exported from Izmir. The city was also an importation center. The english woolen entered the Anatolia via here. The expansion of the trade also triggered the local production. The angora mool and cotton were processed in Izmir.

At that age, the population of Izmir surpassed Bursa and Izmir became the second most crowded city in the Anatolia. At that age, the importance of the coastal cities enhanced comparing to the inner ones. The outcome of this enhancement was that North Trade road lieing between Bursa and Tokat gained importance; the Bursa-Izmir connection condensed; and the trade roads connecting to the Izmir hinterland through the valleys pouring to the Egean Sea such as Bakırçay, Gediz, K.Menderes, B.Menderes enhanced (Tekeli, 1992).

Izmir, the booming port town of this period, was decidedly left a simple district center and not promoted to the rank of a "sancak capital", so that the involvement of high-level officials was avoided as far as possible (Inalcik, Quataret, 1994). In the 16th century, the empire, spread on an extremely large area, consisted of regions that had significant geographical varieties, but no significant growing differences between each other. Every region had a gradual housing hierarchy in itself (Dinler, 1994).

#### **4.4.1 Trade and international incorporation**

Although there is evidence that caravans followed the Astrakhan-Tana route as late as 1520, it suddenly lost its importance after Timur's blow. Along with, by then Bursa had become one of the major world market for raw silk and the Genoese of Pera, referenced by the Ottomans, could find as much silk as they wanted on this market. It should be mentioned that, along with Constantinople and Pera, the rise of Bursa as a world market in the second half of the fourteenth century became the economic base of Ottoman power (Inalcik, Quataret, 1994). The importance of Bursa as a center of the cotton trade; cottons produced in western Anatolia were often sent to the northern coast of the Black Sea by way of Bursa. In addition, a frequently travelled route, partly by land and partly by sea, linked Bursa to the spice entrepot of Alexandria by way of Antalya. In addition, Italian and other European woolens were imported into Bursa; and at the beginning of the sixteenth century, the Medici of Florence entertained a commercial representation in the city. Nevertheless, the most



important commercial activity of Bursa was probably the massive importation of Iranian raw silks, which animated the local looms and permitted certain traders to accumulate vast amounts of capital (Faroghi, 1984). The Ottoman also benefited from trade relations with Europe, obtaining scarce and strategic goods such as tin, lead and steel, gunpowder, chemicals, and, in particular, silver and gold coins, as well as luxury goods consumed by the elite, in particular fine woolen clothes, jewelry, crystal and mirrors, and watches. A formal report of 1520 years indicated that 70 or 80 ships from the Istanbul, Trabzon, Samsun and Sinop ports crossed the Black Sea orderly and carried cotton goods, silks, mohair, figs, lemons, etc. The carrying of wheat from the Danubian provinces by water, the cheapest and only sensible way was through the Danube and the Black Sea to Istanbul (Inalcik, Quataret, 1994).

Despite the fact that adverse events caused interruptions in Ottoman trade, Ottomans developed strategic new commerce policies in order to sustain commercial activities (Karagöz, 2009; Tabakoğlu, 1985). The reason for this is that Ottoman administration is practical and elastic contrary to other eastern states. This flexible diplomacy, which accommodated to any case and circumstances, was the main motive to longevity of the Ottoman Empire. Genç, Tabakoğlu, Marsigli, Braudel, Faroghi and Raymond etc consider that trade routes in Anatolia kept its buoyant still at the beginning of the century XVII, due to these reasons (Karagöz, 2009).

Ensuring price stability, production, distribution and consumption are planned in an ultimate sense were the Ottoman trade policies during the 16<sup>th</sup> century, Foreign and transit trade have been established on the base of the continuity even in times of war with low customs and capitulation policies (Tabakoğlu, 2002; Karagöz, 2009). Since Ottomans were in a sense the maintainer of economic diplomacy pursued by previous states in the regions where they founded, they conserved the animated of silk and spice routes. In addition, despite of the fact that trade routes changed the direction to out of the Mediterranean Sea in the end of the century XVI, Ottomans managed to develop conforming commercial policy and Egypt, Damascus and Aleppo regions (spice road) maintained buoyant business life (Raymond, 1995; Karagöz, 2009). By this means, Ottomans succeed in keeping Mediterranean trade in his favour. Being located in the intersection zone of East-West and North-South trade

roads of Turkey, Kayseri is one of the city, which benefits best from these opportunities (Karagöz, 2009).

Throughout the sixteenth and seventeenth centuries, Europe's share in international trade center was declining, not by Ottoman conquest as a side effect of the rise in overseas trade manufactures and Western Europe. In the first stage of development of the modern world economy (based on long-range navigation), progress of industrial activity in Europe and the growing demand for agricultural products now tradable on favorable terms. Because of the price, revolution had simulated the agricultural economies of Central and Eastern Europe to increase their food production and raw materials in the market. Later, however, the opening of commodity exchange (food and raw material) between Western European countries and their overseas colonies became new Central Eastern Europe permanently in a backward region (Ortaylı, 1994).

In the late 16<sup>th</sup> century, foreign trade in the Ottoman realm changed dramatically. English traders entered to the Mediterranean region in large numbers, eclipsing the Venetians and importing large supplies of woolen cloth. Rapid changes continued in the 17<sup>th</sup> century as well: the transit trade in spices decreased while the importation of coffee increased, raw silk from Iran began to be sold less customarily in Bursa but more customarily in Izmir. Indian merchants were active on both the Red sea and Basra routes. However, it was difficult to determine whether Indian textiles and rice really become so much more important in the 17<sup>th</sup> century than they had been in the 16<sup>th</sup>, or whether we notice them more because the documentation has improved (Inalcik, Quataret, 1994).

This perspective, however, had changed to some extent during those years. It had become clear that even in the 16<sup>th</sup> century Ankara to Bursa as well as in the Balkan towns of the 18<sup>th</sup> century led to a significant amount of social differentiation and capital accumulation. Thus, it was generally recognized today that trade constituted an element essential to the cohesion of the Ottoman state and society. One of the major problems facing the Ottoman state administration. The year of 1600 was how to control merchant activities without hampering the commercial activity that was seen as essential for the normal course of tax collection (Inalcik, Quataret, 1994). At the end of seventeenth century and beginning of the eighteenth century, the Cape of Good Hope lost its importance. The route goes through Russia that at first did not

used, with interrupted by the defeat of the Eastern Mediterranean route especially with Nine Years' War in 1690; gained importance (Yanar, 2014).

Until about 1960, Ottoman trade was viewed largely as a business carried out by foreign merchants and members of the minorities, except of the Istanbul supply trade. However, the latter hardly regarded as authentic trade since it was subject to accurate state controls; the involved merchants were seen almost as an accessory of the Ottoman central administration. By the 17<sup>th</sup> century, it was assumed, the Ottoman ruling group had lost all initiative face-to-face the merchants of mercantilist Europe (Inalcik, Quataret, 1994).

Prior to 1800, international trade between the Ottoman Empire and Europe was conditioned not only by transport costs, but also by the frequent conflicts between the two religiously and culturally competitive worlds, constant frontier warfare, and corsair activities (Inalcik, Quataret, 1994). Ottoman local regulation contained most of the material directly related to trade, while quite a few 17<sup>th</sup> century capitulations, the Venetian ones in particular and dealt mainly with interstate relations and only secondarily with trade (Inalcik, Quataret, 1994).

Factors endogenous to the Ottoman system were important. On the hand, factors external to the Ottoman economy and society include European competition for markets and raw materials, which destroyed the dynamism of the Ottoman craft industry (Inalcik, Quataret, 1994). The Ottoman economic policy can be explained briefly in several substances. First, The Ottoman Empire has kept custom revenues at a low level as percentage 3-5 because they placed particular importance to be an international transit area (Karagöz, 2009; Tabakoğlu, 1985). This situation has led the European traders to continue their commercial activities through Ottoman territories. Indeed, European merchants have extended their business networks over the cities in the interior of Anatolia, reached up to Ankara, Kayseri, (Karagöz, 2009; Özkaya, 1986) thereby opening “commercial consulates” in Ottoman cities from the first half of the 18<sup>th</sup> century. Kayseri, as well as many other cities has taken its share from the buoyant resulted from the trade network inherently (Karagöz, 2009).

Second, while compulsory conditions were living because of “Financial Strategic Advantage Diplomacies” or changing direction of the world’s trade routes in the 16<sup>th</sup> century, Ottomans developed an intimacy with locals via aids and supports of tribes in Syria. This collaboration ensured the protection of the spice route (Karagöz, 2009;

İnalcık) and helped the coastal commercial towns on south and southeast of the Ottomans to be buoyant. The well protection of westbound silk and spice roads came from China and India boost the flow of trade and led to continuous inventory/commodity turnover. Traders from West, Iran, Anatolia and Egypt were selling the goods they brought from their homeland or they were only buying goods to bring to their own cities. Even though the commercial aspects of Ottoman cities, especially Istanbul, turned to the Mediterranean in the centuries of 17<sup>th</sup> and 18<sup>th</sup> centuries, the volume of trade carried out with coastal cities has doubled in comparison with western (Karagöz, 2009; Wallerstein& Tabak, 1999).

The Ottoman textile industry, especially its very dynamic cotton sector, was from the 17<sup>th</sup> century onward threatened not only by the west, but also by the low wages of Indian artisans, and efficient networks of distribution, which allowed imported Indian products to compete with those of Anatolian and Rumelian weavers (Inalcik, Quataret, 1994). Similarly, Anatolian provinces lost more market shares for handicrafts (textiles and other finished products) with each passing day. These areas were finally deprived of their main function's time- in international trade and the lowering of the sources of raw materials (Bursa for silk, angora for mohair, etc.). Export of alliance of cities in Anatolia gave way to the export of raw materials required for the development of Western European manufactures. It is worth mentioning at this point that the smuggling of which raw materials such as silk, cotton, metals and corn quickly became a part (Ortaylı, 1994). Bursa supply trade with silk and thus the raw material for its main branch of manufacturing should have had a much greater impact (Faroghi, 1984). Therefore, we have to assume that throughout the 17<sup>th</sup> century, certain areas of the Ottoman Empire exported agricultural production and (to a limited extent) manufactured goods while importing European cloth. However, these exchanges, while important on a regional level, were not too big as to make the Ottoman Empire as a whole depends upon the European world economy (Inalcik, Quataret, 1994). The prices for food and raw materials were controlled, as was the right of the merchants to participate in specific markets. The major objective of the internal controls was to create an integrated economy with sufficient foodstuffs and other necessities for Istanbul and other cities. In addition, long-distance or international trade existed, but it was essentially in luxury items (Islamoglu-Inan, 1990).

If we assume that Ottoman manufactures resisted against European competition for an appreciable period, we need to explain the conditions of industrial survival. During much of the 17<sup>th</sup> century, the European economic impact was limited, as quite a few regions and industries of Western and Central Europe then were passing through a depression phase. On the Ottoman side, the military strength of the Ottoman state in the 17<sup>th</sup> century was sufficient to prevent limitless European penetration. Ottoman merchant succeeded in organization craft industries and setting up adequate networks for dispensation, and European traders attempting to break into Ottoman markets often found them tough competitors (Inalcik, Quataret, 1994).

#### **4.4.2 Long distance trade: caravans and maritime commerce**

Anatolian cities were typically linked by overland trade routes. From the big Hans in any urban business center, merchants conducted negotiations that led to the formation of caravans (Faroghi, 1984). The establishment of the Ottoman Empire of the East-West trade route (Silk Road), in order to try to grow continuously through conquest and would require a fairly large urban population and a central authority. Among the 16<sup>th</sup> century, settled in Ottoman society, capital, regional centers, market towns, villages, and a hierarchy seen as nomads. This hierarchy depended on functional differentiation of cities and the relationship with the environment and with the other cities manner (Tekeli, 2011). The Ottoman economic region, at its apogee in the 16<sup>th</sup> and 17<sup>th</sup> centuries, possessed not one, but three centers, namely Istanbul, Aleppo and Cairo (Inalcik, Quataret, 1994).

In Ottoman trade, land routes played a considerable role, even though transportation on camels or in ox-drawn carts was more expensive than by ships. Ottoman traders controlled the vital land routes linking the different parts of the empire.

In Anatolia, which served more as a transfer station, numerous harbors to serve this purpose, and in connection with the harbors, cities emerged and developed. Aside from Izmir, Anatolian port towns were mainly concerned with internal trading activities that exchanges take place inside the confines of the Ottoman Empire, including the Crimea. In the Black sea region, there also existed some commercial relations with the Abaza on the northeastern coast around Sukhumi, but this trade was limited in volume (Faroghi, 1984). Merchants established in inland cities or in the capital, quite often owned goods that passed through these ports. On the other

hand, most Anatolian ports probably possessed few resident merchants. All types of boats or ships of varying size moved between Istanbul and the Black sea ports. There is not sufficient information about the population of Istanbul and Anatoly during the 16<sup>th</sup> century. % 90 of people worked on agriculture and settled in urban areas. Furthermore, there emerged a failure of transportation technology, in long-distance; especially inner Anatoly in agricultural products, there was not traded. Just in the carrying of grain, with high cost, transported by camels.

According to a ship-tax register, dated in 1483, 2,019 ships and 2,265 boats visited the port of Istanbul in one year (Inalcik, Quataret, 1994). Moreover, if we assume that limited urban growth in Anatolian to some extent constituted a precondition for the development of Istanbul, the study of coastal trade in the Mediterranean, the Aegean, the Sea of Marmara and the Black sea can lead to a clearer understanding of the Ottoman urban network as a whole (Faroghi, 1984). Istanbul's daily grain consumption in the early eighteenth century has estimated at about 200 tons. It was from the Black sea region that Istanbul received the largest part of its provisions and raw materials including grain, meat, hides and lumber. The fertility of the land and large surpluses, low prices and water transportation were the main determining factors for this dependency (Inalcik, Quataret, 1994). It has been a special classification and integration between the port cities in this organization. On the East-West trade route, thereby Eastern Mediterranean ports emerged important parts as well as a pirate and port town as a complementary activity (Tekeli, 2011).

Living animals were one of the international commodity from the Erzurum, bypass of Sivas in the way from Central Anatolia and possibly further west. Where luxuries and minor amenities of life were concerned, central Anatolian towns probably depended on supplies from Aleppo, an international mart frequently visited by Iranian, Ottoman, Venetian, French and English merchants (Faroghi, 1984).

As both Syria and Anatolia had long been part of the Ottoman Empire, soldiers, settlers, and supplies could bring from Payas and Tripolis (Syria) as well as from the Anatolian mainland. From a military point of view, Cyprus was tied to Istanbul, mainly by the well-known thoroughfare of the 'diagonal road', which a rider starting in the capital could follow as far as Konya. From there, the shortest route went by way of the fortified towns of Larende (Karaman), Ilisira (Yollarbasi), and Mut to Silifke (Faroghi, 1984). Imports of the Habsburgs from the Ottoman Empire reached

even include food towards the end of the century; this new demand led to the accumulation of capital and the rise of large farms (*cifliks*) in Rumelia (Ortaylı, 1994). The combination of tax-farming and its resultant weakening of state controls on production, and the increasing concessions to foreign merchants and its resultant weakening of state controls on trade created a set of centrifugal forces that undermined the basic authority of the Porte. Both the 'revolts' of individual *Ayan* and the separatist movements in the Balkans and in the Middle East can be seen as results of the growing openness of the Ottoman Empire to the currents of the European world-economy (Islamoglu-Inan, 1990).

While this pattern was to change with increasing exports to Europe in the course of the seventeenth and eighteenth centuries, the lack of river communications was determined by natural conditions. Except for the Euphrates and Tigris, Anatolian rivers do not lend themselves well to shipping, since they are generally small and shallow. It seems that the transit trade of the Mediterranean in the seventeenth century did not decrease as dramatically as had been assumed. The small number of navigable waterways explains this situation, at least in part: in all of Anatolia, Syria and Iraq, only the Euphrates-Tigris system was navigable on a regular basis, although much less suitable waterways such as the Menderes were occasionally usable. Caravans were more important than river traffic for linking together different regions of the empire. Throughout the 17<sup>th</sup> century, caravan routes were under the close control of the Ottoman state, and principally used by Ottoman merchants. In 1699, a war fleet built in the Birecik arsenal on the Upper Euphrates. In 1701-2 a new branch of the Euphrates, which has recently formed and was preventing river navigation, was forced back into the main riverbed; about 4000 men were employed on this project. In the 17<sup>th</sup> century river transportation from Birecik to Baghdad was not a matter that would take care of itself; this route only kept open by constant state intervention (Inalcik, Quataret, 1994).

According to historical documents, the domestic trade cities that merchants intensively traded in were Ankara, Tokat, Çorum, Erzurum, Adana, Yozgat, Konya, Kastamonu, and Niğde. The coastal trading cities are İzmir, İstanbul, Payas and Cairo. Nevertheless, at the first half of the 18<sup>th</sup> century, an important trade center for trade to Anatolia was Tabriz, which is on the route of the Silk Road (Karagöz, 2009).

Despite all the measures were taken, adverse events in foreign trade have affected the Ottoman Empire's domestic trade negatively since the beginning of the century XVIII. These adverse events caused to lose power of wholesale traders which had used to have strong bargaining power against foreigners (Karagöz, 2009; Tabakoğlu, 1985).

Being a commercial product on demand of looms silk, which came into use for weaving fabric in textile industry since the century X acquired world's market in the century XVII. In the meantime, being manufactured with the finest quality in Gilan and Mazenderan Regions near the Caspian Sea, raw Persian silk was of interest to western merchants. Persian silk was transported via land route to the Mediterranean and Aleppo since the 17<sup>th</sup> century. These silks were sold to European merchants, particularly to the Italians. From the beginning of the century XVII, after rival routes came up against land trade, the silk was started to load on ships at Bender Abbas port and be transported to Europe passing through Persian Gulf and Cape of Good Hope. Towards the end of the century, it was transported to Europe via Russia (Yanar, 2014; Floor, 1996).

At the end of the 16th century, thereby circumnavigating of Cape of Good Hope and moving forward in the Indian Ocean Portuguese set up a commercial base in the Persian Gulf located around India's east coast. In the next century Dutch, British and French East India Trading Companies followed the Portuguese. In spite of the developments in maritime transportation and rich and profitable trade with a wide range of products carried out in the Indian Ocean international land trade maintained its presence and continued to compete against maritime trade in the 17<sup>th</sup> century (Yanar, 2014). However, from the end of the 18<sup>th</sup> century Genoese Empire were forced to buy silk from Tabriz and Azov markets because of the commotion in the Mongolian Empire. So Chinese silk has largely been replaced by the Persian silk (Yanar, 2014; Inalcık, 2011).

Moreover, the impact of changing maritime trade routes on economic life and consequences of urban development in Anatolia, probably exaggerated, and there is little evidence that the flourishing towns like Kayseri and Konya were strongly affected by international trade flows. Caravan with which the polish traveler Simeon returned from Palestine also took a similar route, reaching Kayseri by way of Zeytun (Suleymaniye) and Furnus. For it is perfectly possible that the commercial relations



of Tokat with Kayseri, Diyarbakir, and other Anatolian towns were developed in order to compensate for losses in international trade (Faroghi, 1984).

#### **4.4.3 Spatial classification and population of cities**

Ottomans had implemented the manorial system successful until the latest by 16<sup>th</sup> Century, thereby they had succeeded in both organizing agricultural production in the best way and had built up an enormous and strong army (Timariot) rest on the demesne. Through the manorial regime, the Ottomans had expanded their territories by winning many victories. There has been developed a settlement system compatible with the conquering character of Ottomans until 16. Century (Dinler, 1994).

Documents about the towns of 16<sup>th</sup> and 17<sup>th</sup> centuries of Anatolia, all kinds of caravan trade passed through the Anatolia territory. During the second half of the sixteenth century, most large cities lay inland and some cities were near the sea. Aside from Trabzon, Sinop and possibly Antalya, there were no sizeable urban settlements possessing a port. Even these three towns were relatively modest proportions. About 2,100 taxpayer habitants numbered Trabzon thereby have about ten thousand population, while Sinop should have been even smaller. Nothing definite can be said about Antalya, but in terms of urban population, it was probably closer to Sinop than to Trabzon. In the category of small towns, that is of settlements, holding 400-1000 taxpaying inhabitants according to the contemporary Tahrir registers, one might add Iznikmid (Izmit), Edremit, Ayazmend (Altinova), Foca, Izmir, Ayasoglu (Selcuk) and Balat as well as Samsun and Unye on the Black sea coast. All other ports, some of them reasonably active, only had a market village attracted to them (Faroghi, 1984). The network of caravan routes is best discussed by starting from the four main nodes, namely Istanbul, Edirne, Aleppo and Cairo. Istanbul was linked to Belgrade and Buda by a route that passed the course of the Roman via Egnatia by way of Edirne, Filibe (Plovdiv), Sofa and Niş. This was the route most commonly used by European travelers entering the empire, and for this reason, it probably constitutes the best known of all Ottoman routes (Inalcik, Quataret, 1994). In this context Faroghi (1982) mentioned; districts of Bozok, Çorum, Kütahya, Niğde, Aksaray, Akşehir, Konya, Beyşehir, and Kayseri were the main places to equip the camels for caravans, also Akdag (madeni) was important for camel hires.

Textile production was responsible for the development of Ankara and some of the smaller towns in the vicinity, as Beypazari and Tosya was in the 16<sup>th</sup> century. In addition, there was a significant export of the finished product, especially to the Venice and Poland. This important city (Ankara), something known Bursa's position in international trade (Faroghi, 1984). Bursa industry was remarkable in that slaves were employed on a large scale, both in workshop and counting houses.

Outside the urban parallelogram of western and central Anatolia, a number of cities marked the course of the Euphrates. Equally obvious was the agglomeration of sizeable urban settlements in the province of Rum. Within this area, the average distance between medium-level cities was much less than in other parts of Anatolia. This state of affairs, probably reflected the fact that the area between Kızılırmak and Yeşilırmak possessed better water resources than most other parts of Anatolia, so that agriculture could be practiced in a more intensive manner than in other regions of the peninsula. Remarkably few part towns could be found on the Anatolian coasts. Trabzon and Sinop were the only two medium-level cities (1,000 taxpayers and over) which functioned as ports. Even though, Urla was located on the coast, it does not seem to have been used often by boat traffic, for no harbor dues were collected in this settlement. In a related context, maritime traffic in the area passed through Izmir and not through Urla. However, as far population was concerned, Izmir toward the end of the sixteenth century was little better than a village (Faroghi, 1984).

Both these features, namely concentration in certain regions and clustering in the proximity of rivers, are available only if all the towns included in our definition of 'urban' (over 400 taxpayers and a market) are plotted on the map. Once only cities of more than a thousand taxpayers are shown, the distribution changes. Within a parallelogram stretching from Bursa and Urla in the northwest to Kayseri, Niğde, and Larende (Karaman) in the southeast, the distribution of medium-level cities were surprisingly even. Southern Anatolia fell into this category, as did the Biga peninsula and a broad strip stretching from the Black sea coast all the way to Malatya. As a result of the parallelogram southeastern limits, practically no one towns of any size, could be encountered once a caravan travelling to Aleppo has passed Ereğli (Konya Ereğilisi) and parted company with the travelers journeying toward Sivas and Kayseri. Until the province of Aleppo was reached, the road only led through one single town of more than a thousand taxpaying inhabitants, namely Adana.

With the conquest of Istanbul in 1453, the capital of The Ottoman Emporer was moved to Istanbul. Consequently, scholars and senior soldiers close to the Sultan departed from Bursa as well. Until the mid-16th century, the city of Bursa was an international trade center where The Silk, Spice and other soft goods were sold through the western agents (M. Baghbanci and O. Baghbanci, 2010). The city had a relatively quiet period of development from the 17th century to the mid-19th century. According to the Ömer Lütü Barkan, the population of Istanbul in 1478 was 97.956, rose to 400,000 from 1520 to 1535 and became the largest city in Europe. In spite of the limitations of technology and transportation at that time there was no problem in the nutrition of this great city. It was mainly because of the rationality of the transfer of products and integrated center system. In the same period in which the nutritional problems of the city started to appear the nutrition problems of the City, in late (17<sup>th</sup> and 18<sup>th</sup> centuries) are taken to prevent the growth of Istanbul. Istanbul as the administrative center of he empire, military, commercial and industrial activities has become a city of many differentiated collection of religious and social facilities (Tekeli, 2011).

Beginning of the sixteenth century, various regions of the Ottoman Empire had entered into trade relations with Europe (Kayder, 1993). Bursa-Bilecik region was particularly specialized on silk fabric. Bursa with (40000) population not only was considered as the Silk Market, but also the cotton producer and exporter to the western anatoila, to Istanbul, Rumeli, South Russia, also sofa of Ankara and Kastamonu send to Europe via western traders, as warehouse center. In this manner, there was presence of the intersection of the (North- South), (East-West), trade routes and regional centers function.

Diyarbakir was on Trabzon-Baghdad-Mosul road had 12,000 inhabitants in 1518. At that time, there were mint, paint, Bozhane in the city. Diyarbakir was particularly specialized in manufacturing weaving in red leather and leather goods. The population of Edirne that non-specific industries were active in 1520 had more trade function, and the second throne city, reached 22,335 of population. Apart from these cities, in the production of the goods, there was a city was specialized in both urban and regional scales. Ankara-Kastamonu region Angora, Konya-Afyonkarahisar region felt making Uşak-Gördes the carpet, Bursa-Bilecik region of silk production and weaving, Mesopotamia mosque lamps, glass works, Manisa-Akhisar-

Philadelphia region Leatherwork, Maras Demre production, Damascus, iron works, sword, mine, Gaziantep shoe making, he specialized on Ankara implement the caravan. The cities were providing beyond the transit functions of the East-West trade routes (such as the Silk Road), therefore, was to lead them to be geographical specialization in goods flows and trade relations (Tekeli, 2011).

In the last years of the sixteenth century, a plan was conceived to link the Sea of Marmara and Black sea by a canal utilizing the waters of the Sakarya. If this project had been realized, it would have led to a precocious growth of Izmit and Adapazari around 1600. As it was, these places only developed into cities of any importance during the nineteenth and twentieth centuries (Faroghi, 1984). For this remarkable phenomenon of urban growth, population growth in general constitutes the most obvious explanation. Urban growth or decline in Anatolia must always be studied in connection with the development of the Ottoman capital. When we compare the urban network, of 1580 year with the distribution of towns prevailing in the fifteen-twenties number, the first obvious difference concerns the size of the towns involved. About 1520, Bursa and Ankara constituted the only towns of more than 3,000 inhabitants, while toward the end of the century; eight cities had reached that level. During the second part of the 18th century, the silk trade began to decrease. At the same time, the allowance for the foreign countries to trade over the Black Sea enabled Trabzon to develop against Izmir. Thus, the long distance trade lost its significance in Izmir's economic life. Izmir's economy shifted to new activities. With the development of agrarian goods of the region, and the dense opening of mine resources to business, however, Izmir ensured its importance somehow. The city transformed from a connection center-transfer spot to a port of a region which is wealthy in terms of agrarian goods and mine resources (Tekeli, 1992).

Concerning the economic activity that went on in the business districts of major Anatolian towns, we gain the impression that textile trade and manufacture stood very much in the foreground, followed by leather, metals, and food processing. For many textiles, manufactured in towns or in the countryside by means of some kind of putting-out system, very easily becomes inputs for regional and interregional trade. Commerce in textiles, leather or metalwork should have linked together different cities and integrated them into a system.

According to textile and related production centers map that made by Suraiya Faroghi, 1984, indicated agglomeration of textile production centers through the main regions near the seaports or the international trade centers (Figure 4.12).



**Figure 4.12:** Textile production in western and central Anatolia 1500-1650, (Faroghi, 1984).

During the 1500-1650 years western and central Anatolia were main textile production centers. As a mentioned textile sector was the first sector that raised in the Europe, especially in England, power raw material production of Anatolia led to the attracting the foreign companies to prepare their raw material from Anatolia regions. Therefore, closed regions to the international transportation points developed in these purposes.

## **4.5 Ottoman and Anatolia During the 19-20th Centuries**

During the 19th century, the Ottoman Empire launched some reforms (Tanzimat) in the classical Ottoman system and replaced it with relatively modern systems. During five decades from the 1820s to the mid-1870s, the first entry of the Empire into the world economy took place with a rapid wave. In other words, the political, social and administrative arrangements, which are often referred as the Tanzimat reforms, were accompanied by the opening of the economy to foreign trade and foreign investments. Relatedly, the ground for subsequent European financial control over the Empire was paved during this period (Pamuk, 1987).

These reforms were done under the inspirations of European thought and society by adapting to Ottoman culture and demands. Therefore, Ottoman Empire could appoint a new, modern, westernized controlling management replaced with the old one. As this manner, Ottoman Empire attempted to continue its power over all the empire and made a new system of government, which did not match to the traditional system. Starting from the end of the Mahmud II, the Ottoman state appliance, concerned by the shortage in state finances, sought means by which to obtain part of the surplus flowing directly out of the Ottoman zone in the core countries of the capitalist world-economy, via this expanded participation in the world division of labor. The pronouncement of the Gulhane Rescript in 1839, which was the beginning of the Tanzimat, represented a legitimization of the peripheral statue of the Ottoman Empire in the world-economy. By providing a legal framework, which the state could attempt simply to secure its portion of the surplus in a system where the state was then dependent (Islamoglu-Inan, 1990). After the Treaty of Belgrade in 1739, the Ottoman Empire entered a period of relatively lasting peace with its immediate neighbors such as Austria, Russia and Persia. Having prevailed until the Russo-Ottoman war of 1768, this phase of tranquility left its mark on the political, cultural and economic life (Ortaylı, 1994).

In the beginning of 19th century, with the long distance trade losing its importance, the trade was focused on the agrarian goods. Important changes on the transportation system at that age: transition from long distance trade to regional shipping, construction of railways and highways which enable road trip and shipping ( Tekeli, 1992).

### **4.5.1 Foreign trade and commodity production expansion**

Ottoman foreign trade was experiencing a structural change in the 18th century: despite what some say, the integration of the Empire in international trade was not the sudden product of

Anglo-Ottoman trade agreement of 1838 but the result of a slow development dating further back into the past. Ottoman Empire in the 19<sup>th</sup> century, especially after the British Trade Agreement in 1838; spent half unbalanced engendered by the colonial experience, outward bound settlement structure. The First World War on the outside provoked ethnic problems, the nature of transport difficulties, and some other problems because a conscious settlement and regional development policies in the establishment of the Republic of Turkey has led to the application during the war (Tekeli, 2011).

Clearly, the timing of the quantitative jump in the trade volume came in the aftermath of the Industrial Revolution due to the emergence of European economy in need of raw materials, foodstuffs and markets for their manufactures. In the case of the Ottoman Empire, the expansion of trade was further facilitated by the signing of separate Free Trade Treaties, whose important consequences would last beyond the nineteenth century, with each European power. The expansion of Ottoman trade and agricultural commodity exports continued until World War I (Pamuk, 1987). During the periods of long-term expansion of the world-economy, demand for the agricultural exports rose rapidly and the terms of trade moved in favor of the Ottoman Empire. During the three quarters of a century anticipating World War I, Ottoman foreign trade, most of which was in industrialized Europe, expanded at abnormal rates. In the second half of the nineteenth century, especially after 1880, substantial amounts of European capital were invested in railroads and in other forms of infrastructure in the Ottoman Empire, further contributing to the enlargement of the trade. During this period, institutional rearrangements facilitating the opening of the economy continued under the pressure of European powers. These changes in the field of circulation had far-reaching effects on the production. Some branches of handicrafts based manufacturing activity began to disappear under the competition of industrial imports. Patterns of production in the Ottoman economy began to shift towards agricultural commodity production for world-markets (Pamuk, 1987). The merchants played a key role in the ever closer integration of production processes into the world-economy. Balkan production of cotton, grains, maize, cattle, and tobacco were most increased European demands.

In the middle of the eighteenth century, for the first time, imports to the Empire began to surpass exports. This disrupted consumption patterns in the Empire resulted in a decline in the handicraft system. In addition, it had a long-term effect on the Ottoman balance of payments, which placed the state in a world account position (Pamuk, 1987). Commercialization of agriculture was usually accompanied by a shift in the composition of agricultural output from

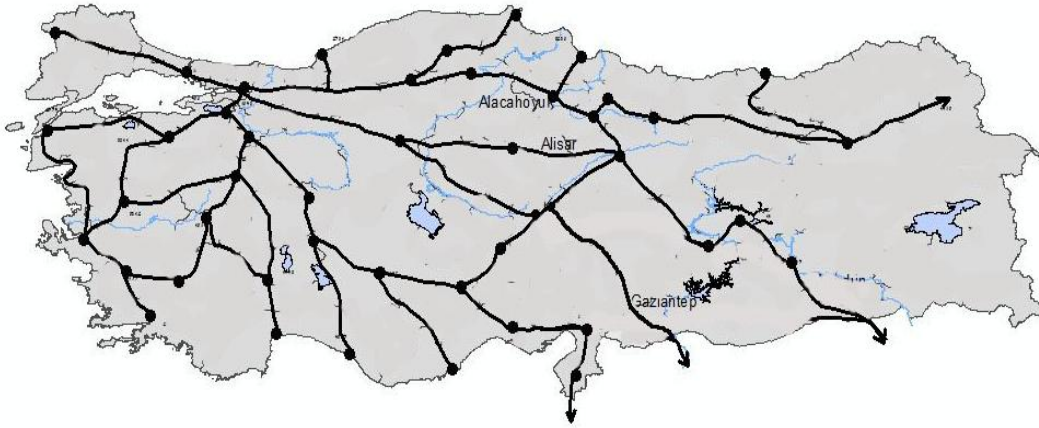
cereals and other subsistence crops towards industrial raw materials and other cash crops. However, cereals were still an important part of the expansion. Since the shift in the patterns of production took place not through foreign investment in directly productive activities, but through the expansion of trade, the role of merchant capital was crucial.

Ottoman foreign trade grew at an extraordinary rate during the second quarter of the century. Agricultural commodity production for world markets was one of the most expanded economic activities. Handicrafts based manufacturing activities cut down the competition of industrial imports. Decline of cotton textile was the most significant example of this decrease, is another important feature of the sub-periods related to the foreign trade conditions. Because of technological advances, which occurred after the Industrial Revolution, industrial products continued to slump the prices and terms of trade turned in favor of specialized primary commodity economy (Pamuk, 1987). Hence, this facilitated the movement in terms of trade and even accelerated changes in production patterns.

In contrast to that of the export market, the role of the domestic market in the expansion of commodity production in agriculture was rather declined during the nineteenth century. While there was some interregional trade by sea within the Empire, the volume of overland domestic trade in foodstuffs remained low until the construction of railroads. Internal trade networks were weakened even further with the construction of railroads by foreign capital, because these railroads linked the agricultural attractive areas to the main ports of export and import (Pamuk, 1987).

Importance of port cities proceeded to a certain degree by meeting the function of product collection. A relative altitude occurred between ports due to the fact that sea allows an easy access. Conveyed merchandise was shipped on traditional vessels from marinas to major overseas ports. The relationship between Izmir and Çeşme, Ayvalık and Edremit could be cited for this relative altitude (Tekeli, 2011). This structure requires the establishment of the transport network through these big port cities (Selanik, İstanbul, İskenderun, Beirut vb.) Hence, the development consolidated inter-regional relations (Figure 4.13).



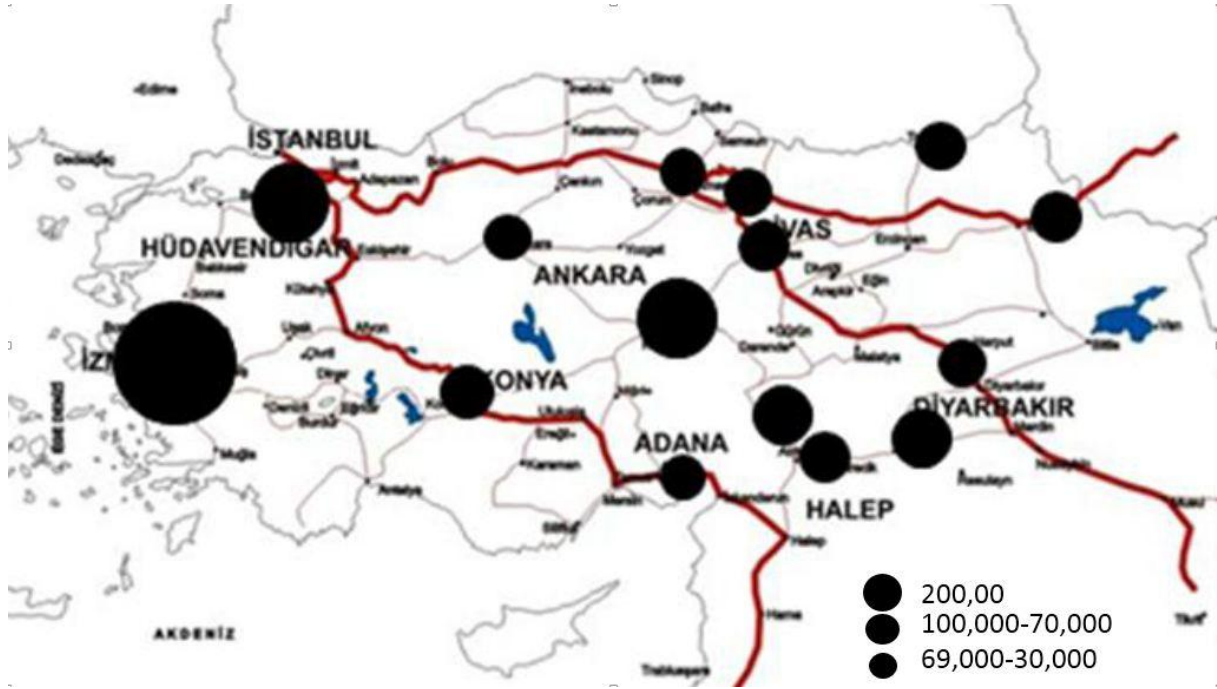


**Figure 4.13:** Trade Route in Ottoman Period, 18-19th centuries, (Bölen, 1978, p: 91).  
Redrawn by the author, with ARC-GIS program.

As required by such a scheme, if more than one force groups competing in the same region, each will try to have a port and rail network. Yet, a port is more critical element than a railway (Tekeli, 2011).

#### **4.5.2 Anatolian urban network in this period**

During the 19th century, the size and number of settlements increased and new urban areas such as Eğirdir–Burdur joined the Anatolian urban network. Some of the coastal cities, like Izmir, Trabzon, and Samsun, ascended to the top of the urban network. According to urban populations in Anatolia between 1830 and 1840 Izmir became the second-largest city after Istanbul with a population of 110,000. Although Bursa with a population of 65,000 was the second-largest city in the 16th century, the population of the city had only grown by about 7 percent. Thus, Bursa fell from the top hierarchy of settlements to the third-largest city in the Anatolian urban network. The urban population of cities as it is showed in (Figure 4.14), were: Diyarbakır, Urfa, Ankara, Tokat, Kayseri, Sivas, Aydın and Kütahya followed Bursa (Çöteli, 2011).



**Figure 4.14:** Agglomeration Areas and the main caravan routes in 1890, Anatolia (Çöteli, 2011).

The settlement hierarchy located on the Anatolian urban network changed at the end of the 19th century. However, Izmir, with a population of 200,000 and Bursa, with 76,000 inhabitants, maintained their positions in the Anatolian urban network. By 1890, the urban populations of Kayseri (72,000), Urfa (55,000), Maraş (52,000), Antep (43,000), Sivas (43,000), Konya (40,000), Erzurum (39,000), Diyarbakır (35,000), Trabzon (35,000), Tokat, Amasya, Ankara, and Adana (about 30,000) came after Izmir and Bursa. Consequently, Bursa, Kayseri and Ankara were at the top of the Anatolian urban network (Çöteli, 2011).

At the end of the 19th century, Kayseri gained the status of the third city in the Anatolian urban network. The settlements of Ankara, Tokat, Amasya, Diyarbakır, Antep, Urfa, and Sivas, which had urban populations of between 50,000 and 100,000, were located near the city of Kayseri and agglomerated together on the northern and southern sides of Anatolia. At the same time, the coastal cities of Mersin, Samsun and Trabzon, in addition to İzmir, advanced in economic activities including the import and export trade that developed in the 19th century.

As Çöteli (2011) mentioned, by comparing the beginning and end of the 19th century, the main manufacturing cities like Ankara, Tokat and Diyarbakır had a negative increase in urban population. Although Bursa was placed on the second hierarchy of the Anatolian urban network, the increase in urban population in Bursa was 8.57 percent. Contemporarily, a

population increase of more than 80 percent was seen in Kayseri, Antep, Malatya, Maraş, Erzurum, Adana and Samsun.

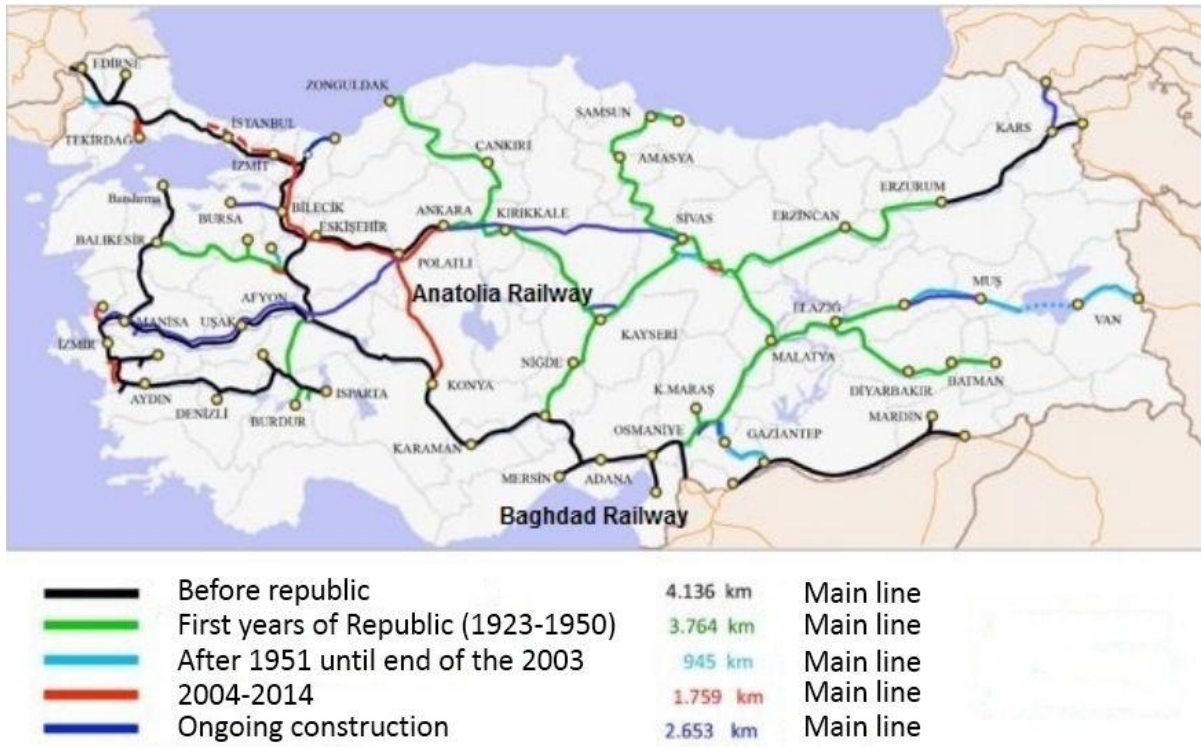
According to the statements above, it is assumed that trade and logistic activities led urban cities to growth. In this context, international trade for the global integration requires more effective integration systems by land and sea roads. At least, it causes to growth and developments of settlements where these routes exist.

#### **4.5.3 International trade and Anatolian railway**

After the industrial revolution and the development of steam power, the era of rail transport emerged. The overland routes as the first modes of transportation were not sufficient in the face of the heavy industry and larger amounts of people. The railway enabled faster transport system for commercial activities and helped the states enhance their military and political powers. Therefore, the development of rail transport had great importance for powers in the competitive environment (Çağlıyan and Bozkurt, 2013).

Railway investment became increasingly important in the field of foreign capital investment within the Ottoman Empire. Furthermore, Britain, France, Germany and Russia, which were the countries in a state of constant competition with each other, penetrated the Ottoman lands particularly in the railway investment. Although British railway investments were initially made to facilitate the movement of goods in the Balkans and Aegean region, the British investment in the area were grown after realizing the agricultural potential in the country. The companies, which built the railway lines were interested in the development of agriculture for the market in that region, and created demand for finished goods.

Aegean Railways were built in order to carry production of Izmir and western Anatolia to the European market (Kayder, 1993). Until the 19th century, large-scale production and mass transport was often carried out by sea. With the development of railway lines in the Ottoman lands, agriculture, mining and forestry resources, especially underground and aboveground resources, began to be very accessible (Akpınar, 2010). The railway was the shortest way to transport these resources locally and globally (Figure 4.14). In this context, the construction of the railway connection between the main trading ports and their hinterlands in order to reach out to the foreign countries became the most important matter (Çağlıyan and Bozkurt, 2013).



**Figure 4.15:** Railway of Anatolia in Turkey territory, (UBAK, 2014).

The transportation system was critically primitive and far from meeting the requirements of the age. The most advanced transportation system; the railway was built and managed by foreign capital. Large parts of railroads were located in Western Anatolia. Beside the roads were quite inadequate. It was very hard to procure a regular transit owing to low-grade roads. Briefly, in 1920s' Anatolia, railway, highway and motor vehicles were insufficient. The only existing ways were located in Western Anatolia. Moreover, there was even no port in coastal cities except İstanbul and İzmir (Dinler, 1994).

The new emerging transportation system, which grew to ensure the economic interrelations with Europe, paved the way for urban development while specifying which cities would lose its importance. The first railway network in Anatolia was built by the support of European countries such as; England, France and Germany. Economic and political interests of these countries oriented these constructions. In this sense, the main aim was carried on the inland shore of minerals and agricultural products so control was taken on the large port. İzmir – Aydın route as the first railway line, in 1856 was given to a British company. This 130 km-line was completed in 1866 (Çağlıyan. Bozkurt, 2013).

Hinterlands controlled by railway routes of İzmir-Aydın, İzmir-Kasaba (1868), Mudanya-Bursa (1892), Şam-Hama etc. became free control areas of foreign countries (Tekeli, 2011).

Ottoman government management of the Anatolian Railways comply with the request as the strategic lead to lag behind the other functions. The Baghdad railway, which had economic and political importance in the Near Eastern History, led to much argument. Actually, the basis economic function of the Baghdad Railway Company on of the Germany direction was make the Mediterranean and Mesopotamia regions Germany's agricultural hinterland. Thus, the Anatolian Railway Company manufactured in Ankara, Eskişehir and Konya, The Baghdad Railway Company help to make cotton production in Adana region and integration of the German economy.

Trade by the railways was quite expensive than maritime trade. While railway investments reduced transportation costs in trade costs, it increased the export and import volume between the Ottoman and European countries. Nearly three-quarters of the increase in global agricultural commodity production was realized in North Greece, Anatolia and Thrace. This means that, while the railways had a limited contribution to the overall agricultural development, they were contributing more specifically in the development of agricultural products for export. Moreover, agriculture oriented to the world economy in the process of articulation.

By concentrating the flow of goods between coastal and inland areas, the export-oriented agricultural production increased more than the overall agricultural production. In 1924, the lands of Railways had potential agricultural production, which was found to be present in an economic sense defined by residues. In this way, while increasing export potential, a market for imports was also created. Newly constructed lines, considered emphasizing the increasing role of agricultural commercialization in the railways (Kayder, 1993). Nationalization of the railways began in the early years of the Republic. The operation of railways in Turkey was not a profitable business. European companies were already preparing to transfer the lines because of great losses. Therefore, nationalization did not cause much trouble (Pamuk, 2012).

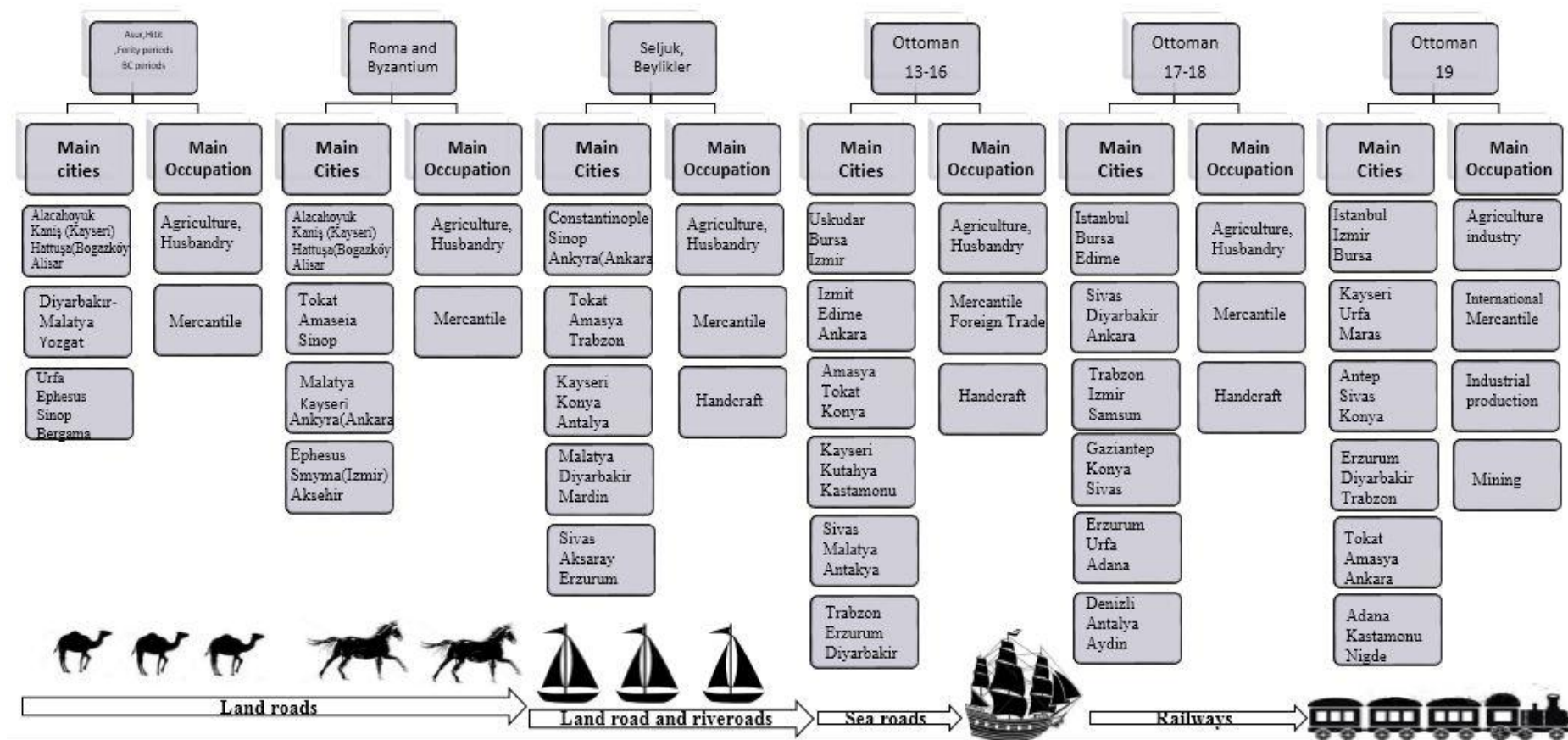
At last, it can be said that the following chart summarizes the belongings and major occupations of main cities during all periods: In regards to this chart, it can be summarize the main epochs, which were reigned on Anatolia during the differnet periods. In addition, it indicates the main cities and main occupations of cities. Throughout time, it seen development in transportation forms and increase the number of bigger settlements with new populations. Trade as a first main job in Anatolia continued during all periods. Anatolia

territory due to the location and surrounding by seas had the major transit role in foreign trade. According to this summary trade, especially foreign trade always has been the main occupation between the Anatolians from the Asure time until now. Changing the destination and form of trade always affected the direction and route of trade.

These changes led to the transformation of the kind of production and size and number of settlements, which are indicated in this chart briefly.



**Table 4.1:** Historical period of Anatolia during the different epoch (major occupations of main cities during all periods), drawn by author







## **5. TRADE CORRIDOR DEVELOPMENT POLICY**

Following the World War II, advanced democracies led by the United States, pursued a broad policy of removing barriers to international trade; this policy reflected the view that free trade was a force not only for prosperity but also for promoting world peace. In the first half of the 1990s, several major free trade agreements were negotiated. The most notable were the North American Free Trade Agreement (NAFTA) between the United States, Canada, and Mexico, approved in 1993, and the so-called Uruguay Round agreement, which established the World Trade Organization (WTO) in 1994 and General Agreement on Trade and Tariffs (GATT) (Krugman, Obstfeld & Melitz, 2010). These agreements generally eliminate tariffs on trade within the region and require relaxation of specific investment obstacles.

The growth of regional trading blocks-often known as regional integration agreements (RIAs) is one of the major international relations developments of the recent years. Most industries and developing countries in the world are members of a regional integration agreement, and many belong to more than one; more than one-third of the world trade takes place within those agreements. The most important examples of them are the North American Free Trade Area (NAFTA), formed in 1994 when the Canada-U. S. A Free Trade Agreement extended to Mexico. The EU has linked with the transition economies of Eastern Europe through the Europe Agreements, and has developed the EU-Turkey customs union and not a but the Mediterranean policy, which incorporates agreements with nearly each Mediterranean country.

Hence, with liberalization and the subsequent sharp increase in trade, it increased the volume of all transport modes traffic, including highway, rail, air, and sea transport, as well as broad shifts in the location of production, patterns of transport, and distribution routes for these goods. Evaluating the increased trade ratios between the nations, the most dramatic changes in the transportation infrastructure occurred. During the agreements to improve the integration and connectivity facilities,

infrastructure development is the essential duty of the members. Promoting intermodal transport within agreements are the main policies of nations to achieve wide spread accessibility around the agreed territories. Projects like CANAMEX in NAFTA, TEN\_T in EU and TRACECA projects between EU and Asian side of the world are the very suitable examples for these transportation evolutions.

### **5.1 USA, NAFTA ;CANAMEX**

Many countries choose to liberalize their barriers unilaterally, recognizing that doing so could achieve significant economic efficiency gains and improve consumer welfare and prospects for growth. Others did so under pressure from international institutions, such as the International Monetary Fund and the World Bank, which often attach their lending programs to economic liberalization and trade reforms. Yet another major force toward lower trade restrictions is the proliferation in the 1990s and 2000s of regional preferential trade accords, such as NAFTA involving the United States, Canada and Mexico, and MERCOSUR, involving Brazil, Argentina, Paraguay and Uruguay (*Globalization & International Trade*, n.d).

A key component of its successful implementation is the free flow of goods, services, people and information between the participating nations. Trade corridors are geographically designated areas that facilitate the national and transnational movement of goods, services, people and information.

The main aims of these organizations are to obtain some of the flow of new North-South business and to use that as an economic development foundation. Building the new transportation highways, multimodal system on the drawing boards, that would connect urban regions and clusters in the USA, Mexico and Canada (Blank, 2006).



**Figure 5.1:** Trade Corridors between Canada, America and Mexico (CANAMEX).

The CANAMEX Corridor is one of 43 national corridors identified in the federal Intermodal Surface Transportation Efficiency Act, the 1995 National Highway System (NHS) Designation Act and the Transportation Equity Act of the 21st Century (TEA-21) as “high priority” corridors. The NHS Designation Act specifies the CANAMEX Corridor to run from “Nogales, Arizona, through Las Vegas, Nevada, to Salt Lake City, Utah, to Idaho Falls, Idaho, to Montana, to the Canadian Border” (“CANAMEX Trade Corridor”).

CANAMEX states of the United State, are the fastest growing regions in terms of the population. Their economies are transforming from natural resources based on services and high tech also all have important natural based tourism activities (Blank, 2006).

## 5.2 European Union Policy: TEN\_T

Subsequently coal and steel community as a first economic cooperation in the EU between Germany and France until European Union, countries aimed to catch the peace and power due to the integration. The integration of the Centre, Eastern and Southeastern European countries, developed infrastructure in the European transport networks have a main goal as the promotion of networks interconnection and interoperability. European countries ambition to take the major role in the world trade caused integration in economic and facilities combination due to being powerful towards the other strong economies such as the USA and Soviet Union. Adequate infrastructure is one of the most important condition to improve the economy. Due to the development plans and more contact between the EU countries, some infrastructure projects comes true.

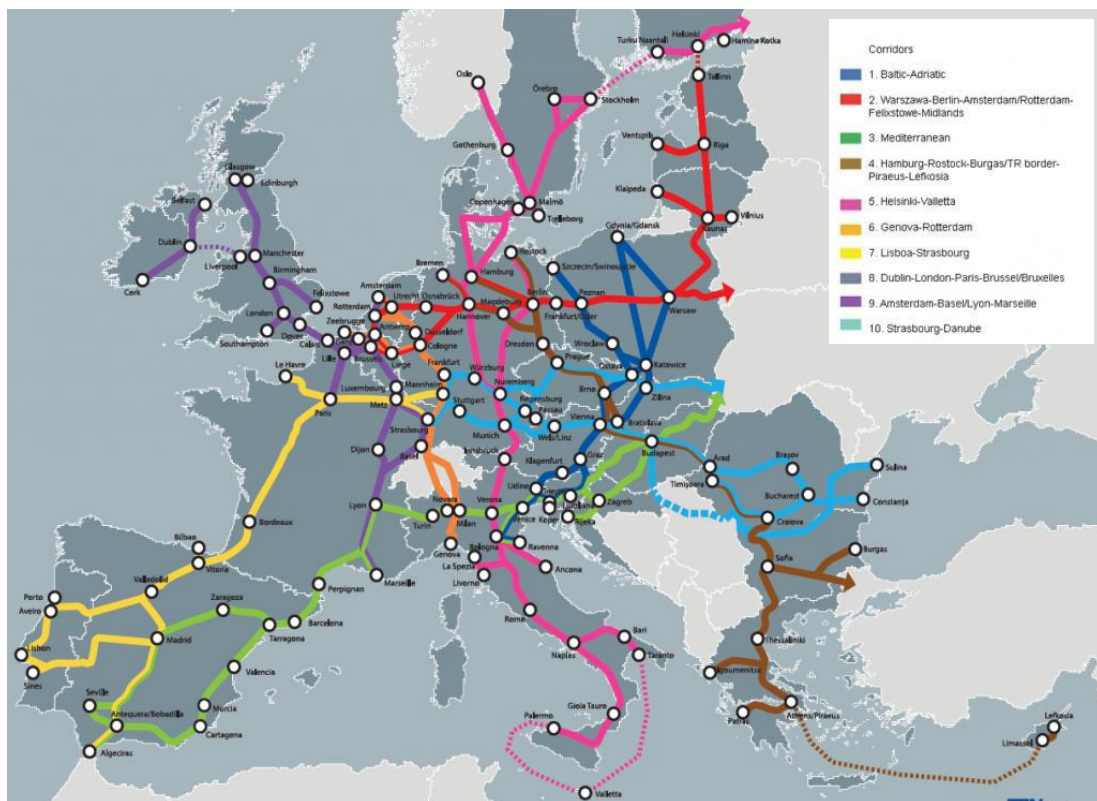
After 1999, European spatial development perspective comes out and influences regional policy. Economic and social cohesion, more balanced competitiveness of the European territory are the two main fundamental goals of the European policy that countries try to achieve equally in all the regions of the EU (Thomson report, 1973). The original political vision, which gave rise to Cohesion Policy based on the conviction, indicates that:

*"No Community could maintain itself, nor have a meaning for the people, which belong to it so long as some have very low standards of living and have cause to doubt the common will to help each Member State to better the condition of its people" (Thomson report, 1973).*

Transportation is a key element in the EU cooperation with neighboring countries and their efforts to promote conditions for sustainable development and economical growth, trade and cultural exchange. Ongoing process of cohesion policy and economic integration in Europe leads to a reduction of the importance of interregional and borders as a discouraging factor to spatial interaction in terms of flow of goods, persons and information.

*The Commission says the new EU infrastructure policy will "transform the existing patchwork of European roads, railways, airports and canals into a unified trans-European transport network (TEN-T)".*

The Trans-European Transport Networks (TEN-T) are a planned set of road, rail, water and air transport networks in Europe. The TEN-T networks are part of a wider system of Trans-European Networks. This system includes also a telecommunications network and an energy network. An effective Trans-European Transport Network allows more efficient and sustainable transport and reinforces economic and social cohesion across Europe. The comprehensive network will ensure full coverage of the EU and accessibility of all regions. The core network will prioritize the most important links and nodes of the TEN-T.

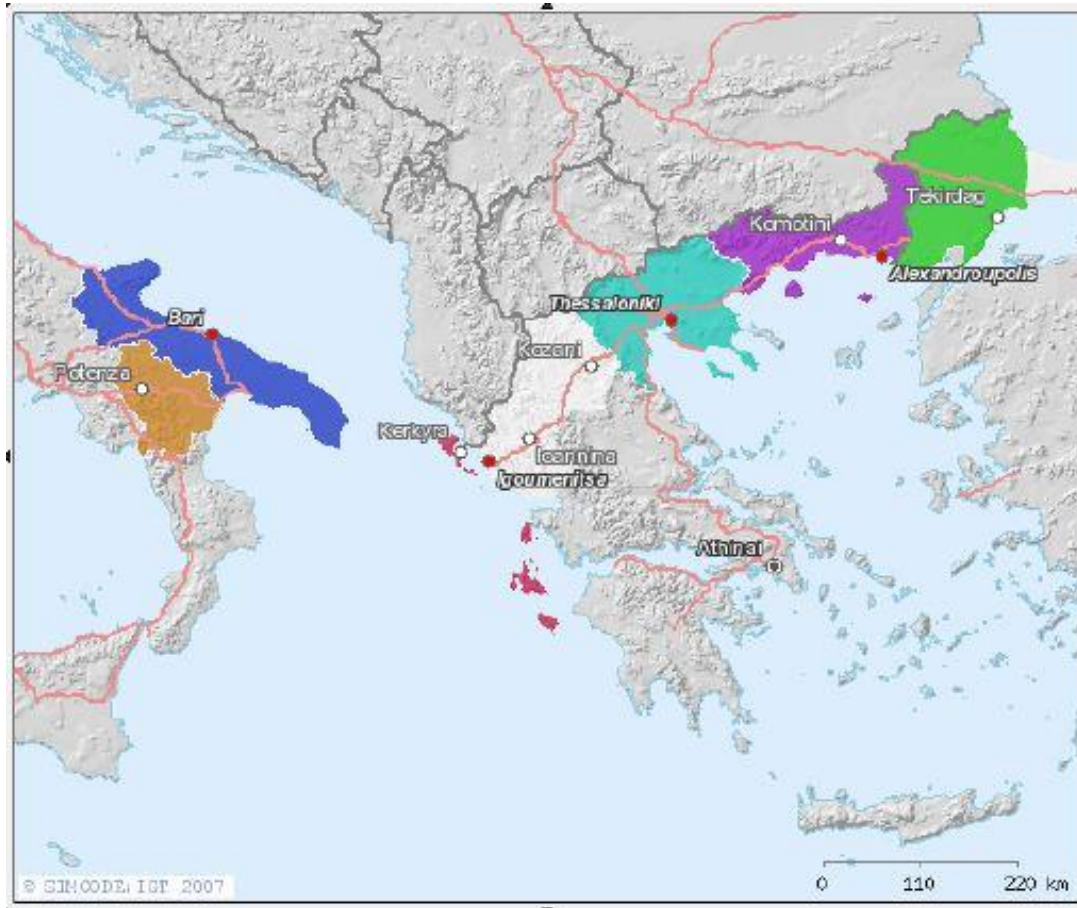


**Figure 5.2:** The Trans-European Transport Networks (TEN-T), Retrieved,2015,from[http://ec.europa.eu/ireland/press\\_office/news\\_of\\_the\\_day/eu-transport-infrastructure-policy\\_en.htm](http://ec.europa.eu/ireland/press_office/news_of_the_day/eu-transport-infrastructure-policy_en.htm).

### 5.2.1 The SIMCODE: IGT

As a multimodal corridor SIMCODE: IGT represents the accumulation of flows and infrastructures, of various modes; (road, rail, sea, air) and is linked with economic and social activities along the corridor between Turkey, Greece and Italy, under EU cohesion policy frameworks that achieved during the 2007-2013 years. It is an INTER-REG B project of EU Archimed programme. It is corridor development project on the historical Via Egnatia Route connecting İstanbul to Rome.

The main objects were provides conceptual tools and an information base for the assessment of the spatial impact of transport along the multimodal corridor linking South Italy, Northern Greece and Northwest Turkey. Also it intended to contribute to the improvement of spatial cohesion and sustainability by enabling the integration of transport policy priorities along the corridor and in the main gateways with spatial planning and spatial development efforts.



**Figure 5.3:** The SIMCODE.IGT, Spatial Development Research Unit (SDRU) Aristotle Thessaloniki, Aristotle University of Thessaloniki, (Turkey's Section prepared by a team of Erkut G., Turk Ş Ş, Ertekin Ö, Baypınar M, Özgen C)

### 5.3 ASIA, TRACECA

The Asian Development Bank (ABD) has a significant stake in the successful application of corridor development approaches with an annual investment of \$2 billion or more regional cooperation and integration.

*“The effects of economic corridor improvements are not confined to the country or specific geography in which the improvements occur. It is therefore important to get measures of the cohesion of a larger geography in which an economic corridor embedded. Generally, the more cohesive a geography is the more distributed the impacts tend to be. Conversely, in a low-networked geography with low economic cohesiveness, the effects tend to concentrate (Brunner, 2013).”*

### **5.3.1 TRACECA**

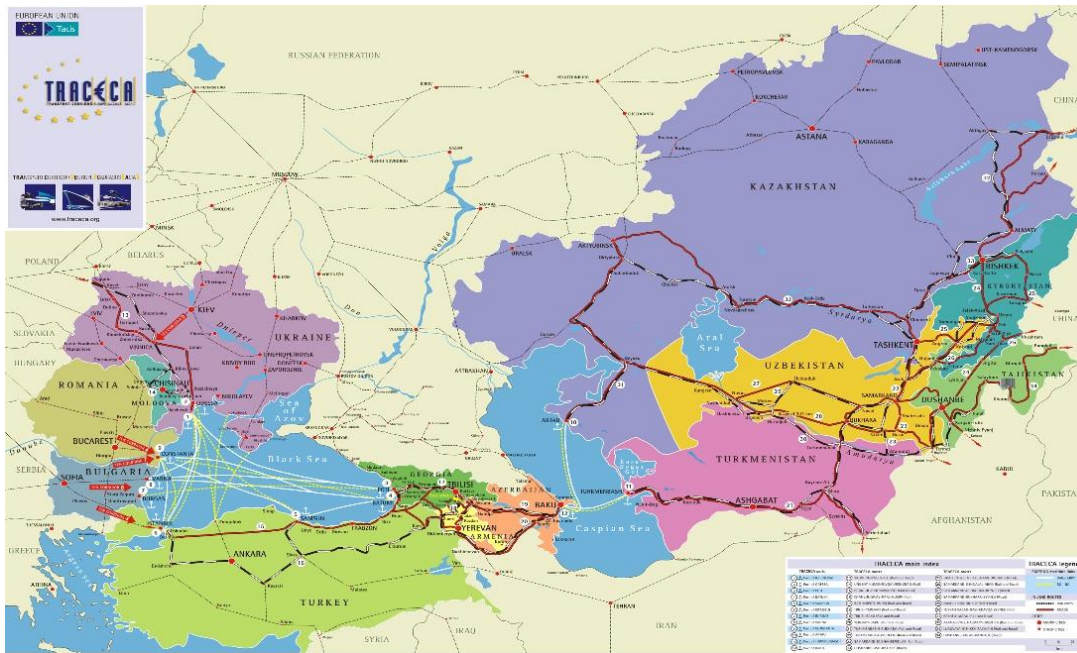
TRACECA is a multimodal transportation corridor between the several countries of different continental which aims to integration the nations and help to economic growth of the related regions.

*“International Transport Corridor Europe-Caucasus-Asia (TRACECA) is a complex multi-modal transport system in countries of the region, which aims to develop economic and trade relations and transportation links between countries and regions that is a significant contribution to the revival of one of the most famous historical routes of the Silk way” (TRACECA, 2012).*

As mentioned previously in terms of the trade incorporation among the nations to create the global economy, there have planned some infrastructure projects. In this context, TRACECA is one of the major infrastructure projects between the different continental. Restoration of the Historic Silk Route recalled for this multimodal transportation project.

For the first time, TRACECA Project introduced at the Conference in Brussels, in May 1993, involving the Ministries of Trade and Transport from 8 countries: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. Giving rise to the implementation of the interregional program of technical assistance “TRACECA” financed from the European Union and aimed at the development of the transport corridor from Europe, crossing the Black Sea, Caucasus, and the Caspian Sea and reaching the Central Asian countries.





**Figure 5.4:** TRACECA project, (TRACECA, 2012).

Between these incorporations, Eastern Europe indicates the most successful instance of overarching (political, economic, institutional) regional integration. The success in the process of Eastern European economies' accession to the EU represents the best case for regional integration that goes beyond trade to include regional institutions with supranational power, such as the European Council, the European Commission, and shared macroeconomic goals and policies (Foxley, 2010).

### 5.3.2 New Silk Road project in Anatolia

The original Silk Road was more than 4,000 miles (6,400 kilometers) of networking trade routes crossing Asia and southern Europe and northern Africa. Based on China's silk industry, the commerce enabled it and supported the growth of civilizations from Egypt to Rome.

In order to make the intermodal transport effective and sustainable: Intermodal transport should be viable option for shifting cargo from road to rail and sea. According to the EU Twinning Project-Strengthening Intermodal Transport in Turkey, it can be claimed TEN-T changes and enlargement, Intelligent Transport Systems (ITS), Infrastructure Needs for an Efficient Intermodal Transport, were the most important ones.

The main objectives of Intermodal Transport in Turkey are; develop a multi-modal transport network within Turkey and extend the EU, TEN-T into Turkey. In this



process, 32 Priority projects were defined, five Port projects, 13 Railways and 15 Roads projects are planned (UHD, 2013).



**Figure 5.5:** TRACECA project in Turkey, (TRACECA, 2012).

According to UHD Ministry of Transport, Maritime Affairs and Communications of the Republic of Turkey, Transport Strategic Plan (for 2014-2018) are:

- “Combined Transport Strategy Paper by promoting cooperation and collaboration in the sector and define strategic tools for competitive and efficient intermodal transport systems.
- The Promotion of Combined Transport Operations with Combined Freight Transport Regulation and enhance of the capacity of ports engaged in container handling and develop international railway connections.(BTK, Marmaray, etc)
- Development of Multilateral and Bilateral Cooperation; Joint studies and workshops with neighboring countries and organisations (OIC, TRACECA, BSEC, ECO etc.) to develop tangible projects, and Signing intermodal agreements with the countries located in Black Sea, Middle East and North Africa Regions.”

Through the TRACECA project, Gerede-Merzifon Road improvement, improving Refahiye-Erzurum-Gürbulak Road, Mersin Container Port and Filyos Irmak-Karabük-Zonguldak are listed as signaling routes. Products shipped to Iraq from the Mersin and Iskenderun ports, is an important logistics center (TRACECA, 2012).

#### **5.4 Evaluation of the Chapters**

Integration into the global economy in Anatolia introduced in the seaports of the regions and continued with railway routes, through crossing the land roads. During this system junction, points improved as a city or economic activity regions within the industrial revolution and related production changes. Growth cities by increasing the population due to the migration from rural to the urban areas appeared during these economic exchanges. Through the each trade route, are appeared variety economic activity centers. Production, agricultural and commercial activities required related services sectors to support them, since by gathering divert economic activity in the same location. It means agglomeration of activities and then population locate on these connectivity routes. By changing the orientation of this route due to the international trade purpose, attractive location relocated for these clusters. Therefore, it can be claimed, disparity in Anatolia, redirection by these economic and trade routes.

According to the distance between production and destination point in international trade, some new areas like logistic centers are being established to support the supply chain of this route. It can assume that logistics centers work instead of the old caravans.

## **6. CONCLUSION AND RECOMMENDATION**

The main goal of this study is to examine the influences of trade on routes including road, sea and railways routes and their direction with an historical aspect. To achieve this aim, Anatolia is selected as a case subject. Due to its unique location and climate condition, it has been the first settlement and human activity area for agriculture and then trade. As all over the centuries, various great empires were hosted in this region due to its important geostrategic situation. The convenient location of this peninsula provided the opportunity to become one of the key routes connecting the east and west to each other. Therefore, it is a valuable example to search in terms of economic and trade relations from the beginning of the commerce interaction life in the world. This route witnessed various wars, collapses and conquests of empires during the ancient era and thereafter.

In this thesis, the aim is to find out, how trade; especially international trade affects the connectivity network in Turkey during the time. In this attempt, historical changes of trade and transportation route from the beginning of the first trade route via Ottoman period until the Republic period by using the historical resources also the map of routes and the major trade centers are searched.

Anatolia as the oldest agriculture center by proximity to the Fertile Crescent and the first trade center and route, has ancient history in this issue. In this way, investigation of the how these conditions reforms by passing time and how considerably world events influence the trade routes and settlements are studied. To achieve this purpose, after discussing trade and trade theories in the second part of this thesis, are focused on historical resources about main events of world as well as Anatolia, additionally to influences of them on trade routes by using the available historical maps. Within such a framework of influencing the trade on the road networks this study was aimed to eliminate the influences over time.

The methodology selected for the study is a concise review of the literature and interpret the maps in terms of related period. In this way, locations and connectivity way via transportation routes are very effective in economic growth on regional,

national and global scale. Existing resource places with economic activity oriented the transportation route due to the destination point. Specific resources cities, labor and markets as production and consumption pieces generate a wide flow of people, goods and information.

During the third part of thesis are mentioned about the historical background of trade and main historical events of the world that affected kind of trade and relationship between the civilizations and nations. Because changes and transformations occurred along with economic and political conditions of each particular period, the form of economic activity was modified. Getting and owing something or lands was the ordinary approach to be powerful. Fighting to have more lands and resources was the common approach among empires, as for the example of the Ottoman Empire. Constructing new roads, such as the Silk Road, was the strategic way to control and discover the new lands in order to ensure power. The initial purpose of constructing the Silk Road, for instance, was with military aims; however, it then converted to a trade route as the Rome Roads system. It is seen that, after so many wars among the empires and states, trade replaced the war.

The liberalization of trade accompanied the growth of transportation since transactions involves movements of freight, capital, people and information. The free movement of people and capital, migration and foreign investment accelerated rapidly. These global flows and accessibility went to connect all over the world together by active and lowest transport routes, new networks and nodes on a global scale and along with new canals, tried to reduce the distances to decline the costs.

In the forth part of the thesis, are discussed about the historical process of the trade routes within the Anatolia territory over time. An active and abounded network of routes crossing over Anatolian territory. Anatolia was originally established in the Assyrian Trade Colonies around 2000 BC. First exchange activities began in this region by trading agriculture productions to other places. In this manner first trade route occurred in the world. Assyria - Abd-al Aziz – Cebel – Harran – Malatya (Melitene), Darendе (Timilkia), Gürün, Pınarbaşı (Ariarathiae), Ekrek and ended in Kültepe (Kayseri), was the main trade route in Anatolia, which began from Upper Mesopotamia.

Throughout Anatolia, small and great towns often found near the rivers. Most Anatolian watercourses, except for the Euphrates and Tigris, were almost useless for purposes of navigation. In Anatolia throughout the historical process and each political organization, creating a route system that is secured towards its own requirements.

The Roman, Byzantine Empires, Persian Empires and Seljuks in addition Ottoman Empire are the most important Empires within the Anatolia that trade and trade routes had the essential role in the economy affairs of them. There are two main trade routes in Anatolia. One is in the direction of East-West, the other is in the direction of South-North. The road in the direction of East-West starts from Antalya, passes through Burdur, Isparta, Konya, Aksaray and Kayseri, links up with the road in the direction of South-North in Sivas and arrives at Tabriz crossing from Erzurum. Second road on the other hand starts from Sinop Port, passes through Tokat and after it joins with the other road in the direction of East-West in Sivas, reaches to Aleppo crossing from Malatya.

Following the Turk domination in Anatolia, trade within the Anatolia went to more progressively. By Seljucian states so many caravanserais and Hans were built through the trade route in regions to prepare the safety of the ways and structured some bridges with respect to facilitate the insurance of transportation and commercial activities which probably tested for the first time in the history.

Anatolia, which is surrounded by seas, enjoyed the wind power as an advantage for commercial purposes not only in international trade but also in internal trade. In Anatolia, which served more as a transfer location, numerous harbors were constructed for this purpose. In this process, some cities emerged as new seaport centers including Trabzon, Samsun, Mersin, Izmir and Istanbul. In order to provide the requirements of the great city Istanbul by internal trade or international trade, roads related to this city were used more actively for trade of raw materials and similar goods. Thus, these economic interactions reformed the routes. Agricultural and handicraft activities were the main sectors in Anatolia as in the rest of the world. By increasing population, the settlements converted from countryside to cities, and this change affected the kinds of economic activities, relationships and connection ways. Thereby, roadways connected the Black Sea in the north of Anatolia to the Mersin seaport in the south and the coastal area of the Mediterranean Sea, and also old Silk Road direction revived within the Anatolia territory as a pathway. As these

developments affected the population of certain cities, Istanbul was defined as a seaport point and capital of the Anatolia.

The establishment of the Ottoman Empire of the East-West trade route (Silk Road), in order to try to grow continuously through conquest and would require a fairly large urban population and a central authority. Among the 16th century, settled in Ottoman society, capital, regional centers, market towns, villages, and a hierarchy seen as nomads. This hierarchy depended on functional differentiation of cities and the relationship with the environment and with the other cities manner. In Ottoman trade, land routes played a considerable role, even though transportation on camels or in ox-drawn carts was more expensive than by ships. Ottoman traders controlled the vital land routes linking the different parts of the empire.

Despite the fact that adverse events caused interruptions in Ottoman trade, Ottomans developed strategic new commerce policies in order to sustain commercial activities. Ensuring price stability, production, distribution and consumption are planned in an ultimate sense were the Ottoman trade policies during the 16<sup>th</sup> century, Foreign and transit trade have been established on the base of the continuity even in times of war with low customs and capitulation policies.

England and other foreign companies to transport the raw material and resources from the east to the west, which improved economic activities in neighboring regions, promoted building railways in the Anatolia. Hence, some of the regions obtained its essential role in the international relations especially in trade. Trading activities to carry the raw materials or requirements to places in national or international scale during the Ottoman period caused migration to big cities and hence the population growth.

Istanbul had a relatively quiet period of development from the 17th century to the mid-19th century. Istanbul as the administrative center of the empire, military, commercial and industrial activities has become a city of many differentiated collection of religious and social facilities.

Beginning of the sixteenth century, various regions of the Ottoman Empire had entered into trade relations with Europe.

Concerning the economic activity that went on in the business districts of major Anatolian towns, we gain the impression that textile trade and manufacture stood very much in the foreground, followed by leather, metals, and food processing. For

many textiles, manufactured in towns or in the countryside by means of some kind of putting-out system, very easily becomes inputs for regional and interregional trade. Commerce in textiles, leather or metalwork should have linked together different cities and integrated them into a system.

Clearly, the timing of the quantitative jump in the trade volume came in the aftermath of the Industrial Revolution due to the emergence of European economy in need of raw materials, foodstuffs and markets for their manufactures. In the case of the Ottoman Empire, the expansion of trade was further facilitated by the signing of separate Free Trade Treaties, whose important consequences would last beyond the nineteenth century, with each European power.

These changes in the field of circulation had far-reaching effects on the production. Some branches of handicrafts based manufacturing activity began to disappear under the competition of industrial imports. Patterns of production in the Ottoman economy began to shift towards agricultural commodity production for world-markets.

According to this research it is assumed that trade and logistic activities led urban cities to growth. In this context, international trade for the global integration requires more effective integration systems by land and sea roads. At least, it causes to growth and developments of settlements where these routes exist.

After the industrial revolution and the development of steam power, the era of rail transport emerged. The overland routes as the first modes of transportation were not sufficient in the face of the heavy industry and larger amounts of people. The railway enabled faster transport system for commercial activities and helped the states enhance their military and political powers. Therefore, the development of rail transport had great importance for powers in the competitive environment.

Aegean railways were built in order to carry production of Izmir and western Anatolia to the European market. With the development of railway lines in the Ottoman lands, agriculture, mining and forestry resources, especially underground and aboveground resources, began to be very accessible. In this context, the construction of the railway connection between the main trading ports and their hinterlands in order to reach out to the foreign countries became the most important matter. According to the distance between production and destination point in international trade, some new areas like logistic centers are being established to

support the supply chain of this route. It can assume that logistics centers work instead of the old caravans.

During the agreements to improve the integration and connectivity facilities, infrastructure development is the essential duty of the members. Promoting intermodal transport within agreements are the main policies of nations to achieve wide spread accessibility around the agreed territories. Projects like CANAMEX in NAFTA, TEN\_T in EU and TRACECA projects between EU and Asian side of the world are the very suitable examples for these transportation evolutions.

It is obvious that each political organization, both national and foreign, created a route system according to its own requirements in Anatolia throughout the history. Because of global interaction of trade and incorporation, the Ottoman Empire introduced to the global economy via trade treaty. In this context, route directions changed according to the location of raw material resources and consuming countries participating in the international trade. In order to support the raw material requirements for European mass production, agricultural commodity production in fertile regions of Anatolia began, and for that reason, railways were established close to these regions. In addition, economic activities in seaports and corridors between the harbors, and main railway routes reformed with regard to foreign consumers. Consequently, it can be claimed that improvements in transportation infrastructure can be related to commercial activities.



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