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**THE ROLE OF TOURISM ON THE ECONOMIC
GROWTH OF TURKEY (1963-2015)**

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DECLARATION

I hereby declare that this master's thesis "The Role of Tourism on the Economic Growth of Turkey (1963-2015)" has been written by myself in accordance with the academic rules and ethical conduct. I also declare that all materials benefited in this thesis consist of the mentioned resources in the reference list. I verify all these with my honor.

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ABSTRACT

Master's Thesis

The Role of Tourism on the Economic Growth of Turkey (1963-2015)

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Tourism is one of the world's fastest growing industries and it is considered as one of the largest industries in the world economy. The objective of this thesis is to examine the impact of number of tourists on the economic growth of Turkey. In this thesis, the Augmented Dickey-Fuller, (ADF), Phillips-Perron (PP) unit root tests, Johansen cointegration and Granger causality tests were used. The data covers the period from 1963 to 2015 for the number of tourist arrivals (NT), Gross Domestic Product (GDP) and GDP growth rate (GDPGR) variables.

In recent decades, the Turkish tourism sector has become the most critical industry for economic development. Mainly, tourism revenues that generates money from the number of tourist arrivals together with export income would enable Turkey to recover the current account deficits. Meanwhile, it is expected that the findings of this thesis will have an important contribution for better understanding the role of tourism on the economic growth of Turkey.

The results of Johansen's cointegration reveals that the all of the variables were cointegrated at both 5% and 1% significance levels. Thus, the existence of cointegration among the variables of number of tourist arrivals, Gross Domestic Product and GDP growth rate indicates that there is a long-run relationship among these variables in our model for this study. In addition, the integration among the variables supports the initial hypothesis that number of tourists has a positive effect on the economic growth.

The findings of Granger causality test indicate the existence of unidirectional causality from the number of tourist arrivals to GDP and GDP growth rate but not vice versa. Hence, the results are in support of tourism-led growth hypothesis for the Turkish economy rather than the growth-led tourism hypothesis.

Therefore, the findings of this study suggest that Turkish government should focus on developing policies to encourage investment for the tourism sector in order to attract high number of tourists from across the globe to augment tourism revenues to achieve high economic growth. Furthermore, the findings of this thesis could be used to focus on how to develop models to increase tourism income in order to achieve high economic growth.

Keywords: Tourism Industry, Number of Tourist Arrivals, Economic Growth, Turkey.

ÖZET

Yüksek Lisans Tezi

Türkiye'nin Ekonomik Büyümesinde Turizmin Rolü (1963-2015)

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Turizm, dünyanın en hızlı gelişen endüstrilerinden ve dünya ekonomisinin en büyük endüstrilerinden biri olarak sayılmaktadır. Bu tezin amacı, gelen turist sayısının Türkiye'nin ekonomik büyümesindeki etkisini incelemektir. Bu tez çalışmasında, Dickey-Fuller (ADF), Phillips-Perron (PP) birim kök testleri, Johansen eş-bütünsellik ve Granger nedensellik testleri kullanılmıştır. Veriler, 1963 - 2015 dönemindeki Gelen Turist Sayısı (NT), Gayri Safi Yurt İçi Hasıla (GSYİH) ve GSYİH Büyüme Hızı (GSYİHBR) değişkenlerini kapsamaktadır.

Son yıllarda, Türk turizm sektörü ekonomik kalkınma için en önemli endüstri haline gelmiştir. Özellikle ihracatla birlikte gelen turist sayısından kaynaklanan turizm gelirleri ile Türkiye'nin cari işlemler açığının iyileştirebileceği düşünülmektedir. Ayrıca, bu tezin bulgularının turizmin Türkiye'nin ekonomik büyümesi üzerindeki rolünün daha iyi anlaşılmasına önemli katkı sunması beklenmektedir.

Johansen'in eşbütünsellik test sonuçları da tüm değişkenler arasında eş bütünselliğin olduğunu %5 ve %1 istatistiksel anlamlılık seviyelerinde göstermektedir. Gelen turist sayısı, GSYİH ve GSYİH büyüme oranı arasındaki eşbütünsellik bu değişkenler arasında uzun-sürelili bir ilişki olduğuna işaret etmektedir. Ayrıca, değişkenler arasındaki eşbütünsellik turist sayısının ekonomi üzerinde olumlu etkisi olduğu başlangıç hipotezini de desteklemektedir.

Granger nedensellik testinden elde edilen bulgular, turist sayısından Gayrisafi Yurtiçi Hasılaya ve Gayrisafi Yurtiçi Hasılabüyüme oranına tek yönlü nedensellik olduğunu göstermektedir. Ancak bunun tersi yoktur. Dolayısıyla sonuçlar, Türk ekonomisi için büyüme öncülüğünde turizm hipotezinden ziyade turizm öncülüğünde büyüme tezini desteklemektedir.

Bu nedenle, bu çalışmanın bulguları Türk devletinin daha yüksek ekonomik büyümeyi başarmak, turizm gelirlerini arttırmak ve dünya genelinde çok sayıda turist çekmek için turizm sektörüne yatırımı teşvik edici politikaları geliştirmeye odaklanması gerektiğini göstermektedir. Ayrıca, bu tezin bulguları daha yüksek ekonomik büyümeyi başarmak ve turizm gelirlerini arttırmak için nasıl modeller geliştirilmesi üzerine yoğunlaşmak için kullanılabilir.

Anahtar Kelimeler: Turizm Endüstrisi, Gelen Turist Sayısı, Ekonomik Büyüme, Türkiye.

THE ROLE OF TOURISM ON THE ECONOMIC GROWTH OF TURKEY
(1963-2015)

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ABBREVIATIONS

ADF	Augmented Dickey-Fuller
AIC	Akaike Information Criterion
AR	Autoregressive
ARDL	Autoregressive Distributed Lag
CPI	Consumer Price Indices
EDTG	Economic Driven Tourism Growth
ELG	Export-led Growth
FDI	Foreign Direct Investment
FPE	Final Prediction Error
GDP	Gross Domestic Product
GDPGR	Gross Domestic Product Growth Rate
GLTH	Growth-led Tourism Hypothesis
GNP	Gross National Product
HQIC	Hannan-Quinn Information Criterion
JJ	Jahansen and Juselius
LR	Likelihood Ratio
NT	Number of Tourist Arrivals
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Square
PMC	Passenger Movement Charge
PP	Phillips-Perron
SBIC	Schwarz Bayesian Information Criterion
SVECM	Structural Vector Error Correction Model
TLEG	Tourism-led Economic Growth
TLGH	Tourism- led Growth Hypothesis
UNWTO	United Nations World Tourism Organization
VAR	Vector Autoregressive
VECM	Vector Error Correction Model

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INTRODUCTION

The relationship between tourism and economic growth is one of the core subjects among economists in recent years. It is believed that tourism sector has a numerous positive impacts on economic growth, since this sector has multidisciplinary activities. Tourism includes various types of businesses with different dimensions, where it adds benefits to other sectors of the economy such as employment generation, government revenues, foreign exchange earnings, the development of infrastructure, expansion of entrepreneurial, and other skills (Tecele and Schroenn, 2006).

During the last decades, tourism has become one of the important and driving components of the economy. Evidently, tourism sector is deemed as a promoter of the economic growth for many countries around the world, particularly for the developing countries. Furthermore, tourism sector has a positive impact on the national economy by the means of multiplier effects and by creating demand for the specific goods and services. Indeed, tourism sector is also known as an important source for generating foreign exchange inflows (Lazar and Pop, 2012).

Tourism plays a critical role and is a key source of economic growth for many developing countries including Turkey. There are a number of developing countries, which are focusing and promoting the economic policies for international tourism expansion as an economic growth tool. According to the United Nations World Tourism Organization (UNWTO), tourism sector has continued to grow in the past years. The number of tourist arrivals had important contribution on tourism receipts such that tourist arrivals rose from 25 million globally in 1950 to 278 million in 1980, 674 million in 2000, and 1186 million in 2015. Correspondingly, international tourist receipts all around the world have increased dramatically from US\$ 2 billion in 1950 to US\$ 104 billion in 1980, US\$ 495 billion in 2000 and US\$ 1260 billion in 2015 (UNWTO, 2016).

In the light of global boom in tourism industry, promotion of the tourism sector in Turkey has become the most critical development strategy mainly due to tourism revenues together with export income would enable Turkey to recover its current account deficits (Oh, 2005).

The Turkish authorities have launched comprehensive programs since the 1980s such as financial liberalization and economic stabilization to restructure and stabilize the internal and external balance of payments. The key point is that the Turkish authorities aimed to transform the economy from import substitution policy into outward-oriented policy, which is called export-led approach. Therefore, Turkey has prioritized the development of tourism industry besides the exports-led economic growth strategy. In the line with this view, Savaş et al. (2010) and many other economists refer to the tourism sector as the "the industry without chimney". In addition, the tourism growth policies for developing countries are important sources for improving the balance of payments and are counted as an additional source of revenue for the Gross Domestic Product (GDP).

The aforementioned policies of the last four decades made the Turkish economy the second strongest economy after Saudi Arabia in the Middle East today (Akgün et al., 2011). Turkey increased the international trade, reduced the trade barriers and encouraged high level of foreign direct investments (FDI). Along with these policies, the Turkish government developed the large scale, capital-intensive tourism and hospitality projects such as beach resorts, grand hotels, lodges and apartments (Savaş et al., 2010). Moreover, Turkey offers many fascinating historical and cultural places and it inherits several tourist attraction areas in Istanbul, Antalya, Izmir, Ankara, Cappadocia, Ephesus, Bodrum and many other places.

The objective of this thesis is to test the impact of number of tourist arrivals on the economic growth of Turkey. The thesis uses the most recent data. The sampling period is from 1963 through 2015. The thesis applies Augmented Dickey-Fuller, Phillips-Perron, Johansen cointegration and Granger causality tests to measure the impact of tourism on economic growth.

The contributions of the current thesis to the existing literature are as follows: Firstly, this paper examines the impact of tourist arrivals on the economic growth of Turkey. In the previous literature, the relationship between number of tourist arrivals and economic growth has been ignored in the majority of studies including Terzi (2015), Samirkaş and Samirkaş (2014), Arslantürk and Atan (2012), Yamak et al.

(2012), Çetintaş and Bektaş (2008), Kizilgol and Erbayrakli (2008), Akan et al. (2008) and Uysal et al. (2004). Similarly, the numbers of tourist arrivals for other countries have been neglected as well. For example; Brida et al. (2008) for Mexico, Chen and Chiou-Wei (2009) for Taiwan and Korean case, Khalil et al. (2007) for the Pakistan and Balçilar et al. (2014) for the South Africa. The aforementioned researchers have used different variables and econometric techniques, they focus on tourism receipt, real exchange rates and tourism expenditures. This drawback of excluding the number of tourist arrivals has been accounted in this paper. Secondly, the thesis uses long sampling period and covers the most recent data. The current study used the data from 1963 to 2015. In the literature, there has been no study that covers long sampling period for Turkey. Thirdly, from a methodological point view of, the current thesis used several econometric models in order to have robust results.

The findings suggest that there is a long-run relationship between number of tourist arrivals and GDP at 5% and 1% significance levels. This study reveals the existence of cointegration among the three variables; the number of tourist arrivals (NT), GDP and GDP Growth Rate (GDPGR). This finding supports the fact that the number of tourists helps to boost economic growth. Furthermore, the Granger causality test results indicate the existence of a unidirectional causality from number of tourist arrivals to gross domestic product and GDP growth rate but not vice versa. This leads us to conclude that the results are in support of tourism-led growth hypothesis for the Turkish economy than the growth-led tourism hypothesis. Contrary to Katircioglu (2009), Ozturk and Acaravci (2009) and Topalli (2015) who failed to confirm the tourism-led growth hypothesis (TLGH) for Turkey as well as failed to prove the existence of long-run relationship between tourist arrivals and real GDP in Turkey.

The thesis has been organized as follows; the first chapter provides an overview of determinants of tourism demand for Turkey. The second chapter gives comprehensive literature review for the global tourism industry and top touristic destinations of the world. The third chapter describes the data and methodology used in the thesis. The empirical results are discussed in the fourth chapter.

CHAPTER ONE

DETERMINANTS OF TOURISM DEMAND

1.1. DETERMINANTS OF TOURISM DEMAND

In this chapter, the determinants of tourism demand and the reasons for tourists' motivation for choosing a specific destination will be discussed. The global tourism industry has experienced a significant growth in the past few decades. There were only a few tourism related articles and journals two decades ago, however currently there are more than 70 journals on tourism together with many research on tourism issues that cover more than 3000 institutions around five continents (Song and Li, 2008).

There is a growing number of studies on tourism sector focusing predominantly on economic factors such as income, relative prices and exchange rates. Nevertheless, there are non-economic variables that may influence tourists' decisions such as country's attractiveness, impact of wars and terrorism risks, etc (Vencovska, 2014). In addition, it is important for policy makers to know which factors have negative impacts on tourism demand. For example, Vencovska (2014) argued that tourism demand is negatively affected by the political instability as it leads to decrease in demand of tourists. Similarly, Vanhove (2005) explained that those elements that inhabitants of any society have set (i.e. holidays) are some determinants of demand. Therefore, some countries have higher demand, while others have low demand for tourism (Vanhove, 2005).

Generally, there are cultural, political and economic benefits in international tourism for countries. For the last 50 years, the tourism industry has been one of the fastest growing industries in the world (Cho, 2010). According to the United Nation World Tourism Organization (UNWTO) (2013), the number of international tourists augmented from 25 million in 1950 to 160 million in 1970, 429 million in 1990, 689 million in 2001, and continuously 846 million in 2006. The UNWTO has projected the international tourists to reach 1.6 billion by 2020 (Cho, 2010). The tourism industry is becoming the largest industry in the world because of the upsurge in number of

international tourism. Hence, the management and development of international tourism demand becomes important day by day (Balaguer and Cantavella-Jorda, 2002).

1.1.1. Income

There are significant number of researchers who believe that income and relative price (cost of goods and services that tourists are able to pay at destinations, such as accommodation, local transportation, food and entertainments) are the most important variables in order to gauge demand as the tourist price indices (TPI). Therefore, the consumer price indices (CPI) of the origin and destinations are used on the behalf of relative prices of international touristic goods and services. Meanwhile, the CPI ratios are useful for adjusting difference in exchange rates between the home and host countries' currencies (Önder et al., 2009).

According to Lim (1997), there are large number of factors that affect the international tourism demand. First of all, the level of income, which undoubtedly affects the ability of tourists to pay for travel. The other important factors are the relative prices of goods and services, which are purchased by tourists for the specific destinations in comparison with the original place of tourists, the transportation cost and exchange rates between origin and destination. In an early study, Mathieson and Wall (1982) argued that changes in income level on tourism may not be observable in the short-run but their effects may be identified after a long period of time. Furthermore, Lim (1997) reviewed one hundred tourism studies where the income variable counts as the most frequently used variable.

Each researcher elaborates income in various slightly different ways. For example; Uysal and Crompton (1984) argued that income is the mostly used independent variable and they further add that the larger the real per capita income of a country is, the more likely its citizens are able to travel for the foreign destinations.

Furthermore, Song et al. (2010) used the real GDP to measure the income level of Australian, British and American citizens to find out determinants of demand for tourism sector in Hong Kong. Their findings suggest that the majority of international

tourists from these countries are visiting Hong Kong for business trips. The tourists arrivals in Hong Kong are mostly influenced by tourist income and publicity.

1.1.2. Relative Price

The relationship between price and tourism demand leads to price elasticity. In other words, the price elasticity is very close to demand of tourism. If the price of the services increases by 1 %, the tourism demand decreases by 1 % (Vanhove, 2005). In a similar study, Mathieson and Wall (1982) pointed out that travelers decisions are significantly influenced by the price and income, thus price level change influences the tourists' decisions easily.

Uysal and Crompton (1984) examined the impact of relative price on the demand of tourism. They argued that when the relative price decreases, there is an increase on the number of international tourism services by tourist destination country. Moreover, Vencovska, (2014) agreed that price is one of the important determinants of tourism demand. It is very challenging to measure the tourism income due to availability of wide range of products that tourists use while traveling from the place origin to the destination.

Martin and Witt (1987) explained that the tourism price consists of two main parts; the cost of travel to destination and the cost of living at destination. A study by Blake and Cortes-Jiménez (2007) revealed that explanatory variables such as population, income or expenditure, price, substitute price, and taste are very important factors for international tourism demand.

1.1.3. Exchange Rates

Obviously, exchange rates have a considerable effect on the extent of the international tourism. The exchange rate fluctuation may increase or decrease the size of tourism demand for a specific destination. The price of foreign currency may influence tourists. The tourist demand might increase and tourists might buy more services when

the price of foreign currency declines. For instance; when price of Turkish Lira declines against Euro, the Euro zone countries may purchase more tourism goods and services (Uysal and Crompton, 1984).

Definitely, government has significant role in selecting a suitable exchange rate regime policy. The suitable exchange rate policy would increase inflows of tourism industry at most. In a similar discussion, De Vita (2014) argued that exchange rate policy selected by country of origin in relation to other currencies and foreign exchange market is important for tourism industry. This is essential for every country investing in tourism industry, to increase knowledge of its scholars in order to choose suitable exchange rate regime policy, such as (i) a fixed exchange rate (ii) floating exchange rate (iii) float to motivate demand of international tourism (De Vita, 2014).

In fact, exchange rate is one of determining factors of international tourism demand, under the broad theoretical and empirical works of researchers (De Vita, 2014; Song et al., 2010; Abbas and Ibrahim, 2011; Blake and Cortes-Jiménez, 2007; Song and Li, 2008; Önder et al., 2009; Lim, 1997; Cho, 2010; Vencovska, 2014). Almost all of the above-given researchers believe that exchange rate regime has significant effect on the number of international tourists. However, Agiomirgianakis et al. (2014) studied the effect of exchange rate volatility on tourism flows for Turkey and found a negative relationship between exchange rate volatility and tourist flows. These researchers further argued that there is a negative impact of relative price over tourist flows. Therefore, they insisted that policy makers should avoid the market prone to exchange rate volatility because of possible political and social disruption and financial instability.

1.1.4. Other Economic and Non-economic Variables

There are other economic and non-economic variables, that could affect the decisions of tourists for specific destinations. Each of these factors have been characterized according to their respective roles in tourism industry and their relationships in inspiring the overall decision making process of the tourists.

1.1.4.1. Trade Openness

Trade openness is considered as an important factor affecting the relationship of the economic growth and development of tourism industry in the economy. For instance; Singapore, because of its high degree of trade openness, tourism industry has full access to goods and services. Moreover, trade openness also has a positive impact on cross border inter and intra-firm activities, as it motivates international travelers and encourage tourism industry positively (Wong and Tang, 2008).

In fact, the influence of trade is very significant on the tourism industry. The primary measure of trade openness is the inflow of export and import. International tourism is a good source for generating the international trade flows. Thus, increasing quantity of business travel increases the size of business travel for those countries, where the economy is mostly driven by international business. For instance; in Egypt, international arrivals may be determined by the level of business activities among the destinations and its economic partners (Abbas and Ibrahim, 2011).

1.1.4.2. Population

The population of a country has significant effect on tourism industry. The larger the population is, the more tourism activity a country can generate. Moreover, different age groups would have influence on the consumption pattern of tourism at destination country differently. Currently, the ratio of older people is rising in most of the developed countries in comparison with younger or working generation. Time is an essential factor that influences travelers' decisions. Younger populations, who are mainly employed, are bound to their specific holidays. On the other hand, time has no influence at all on the demand of older or retired travelers (Vencovska, 2014).

Similarly, Moscardo (2006) agreed that retirees have more time and money for travelling. This group of population increases the demand for tourism activity. Moscardo (2006) also believed that a large number of companies and industries are providing services for "third age tourism". In other words, these companies and industries offer

specialized tourism services for the seniors groups. The “third age tourism” is indeed, the popular subject of tourism demand topics in recent years. The senior travelers are the crucial segment for tourism industry. Smith et al.(1993) further argued that senior travelers are more mature tourists. The reason is that they stay patiently and longer at the touristic places. Moreover, this group has organized time planning and often they prefer to visit families and friends.

1.1.4.3. Marketing

Dwyer and Forsyth (2006) state that different nationalities and cultures are likely to respond differently to marketing approaches and different destinations vary in their abilities to use marketing electively. Obviously, for attracting tourists, touristic organizations spend huge budget on promotion for different marketing activities, a number of researchers agree that promotional expenditure has significant influence on tourism demand.

On the contrary, Rodríguez et al. (2001) found that the promotional expenditure had small influence on the number of tourists. They insisted that in addition to promotional and marketing expenditures, infrastructure, exchange rate and the cost of trip also have the significant influence on the number of visitors at destinations.

1.1.4.4. Tourism Tastes - Country Attractiveness

Tourism taste differs from person to person. In fact, age is the social economic factor that may change the tastes of tourists. Moreover, other factors such as gender, marital status and level of education also have influence on travelers’ taste and preferences (Vencovska, 2014).

According to the Organization for Economic Cooperation and Development (OECD) (2009), culture has a significant influence on the number of tourists from country of origin. Culture is seen as the heritage and value of a destination, which includes the education level of local population and national cultural identities.

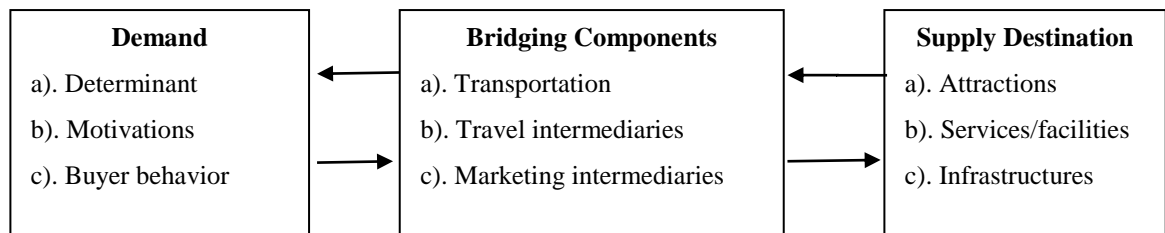
1.2. DETERMINANTS OF TOURISM SUPPLY

The other important determinant of tourism industry is the tourism supply. The key element for tourism supply is government's willingness and commitment to provide all type of facilities for travelers and extend the maintenances, marketing promotion and facility resources. The tourism industry needs both natural and man-made resources Vanhove (2005).

Moreover, the tourism industry requires infrastructure in place such as telecommunication, accommodation and transportation. The availability of these resources and infrastructure positively affect the flow of international tourism at the destination (Nelwamondo, 2009).

According to Vanhove (2005), tourism is quite a different industry. Many different actors play key roles in tourism industry. Tourism system can be defined as a structure that shows relation between tourism supply at the destination, the combining elements between supply and demand, and the tourism demand.

Figure 1: Components of Tourism System



Source: Adapted from Vanhove (2005) the Economics of Tourism Destinations, pp. (76)

Tourists always look for proper form of accommodation with various types of foods and services. Thus, the supply of tourism mostly includes the touristic products and services such as hospitality, transportation and attractions/products, entertainments, hotels (privately owned and large hotel chain groups), different types of foods and infrastructures (Nelwamondo, 2009). In their study, Gunn and Var (2002) elaborated

that tourism supply components can be sorted according to four different elements including natural, human, cultural and technological resources:

- Natural or environmental resources comprise of the fundamental measure of supply and the availability of resources for tourism supply. The key elements for the tourists such as physiography of the area, landforms, flora, fauna, water bodies, air quality and similar natural phenomena are of great importance to the success and continuity of tourism industry.
- Man-made resources are also important for the tourism supply. For example; infrastructure, which consists of all important and primary facilities such as water supply systems, sewage disposal systems, power lines, roads and communication networks, is key to tourism supply. Additionally, the super structural needs for tourism to provide facilities to support the tourists' also enhance tourism.
- Hospitality and cultural resources like churches, mosques, abbeys, castles and museums are also essential in enhancing tourism. Tourists always prefer destinations where security and comfort is guaranteed. In addition, the attitudes of residents to tourists need to be desirable. Tourists are only motivated at a destination when there is friendliness, courtesy, sincere interest and willingness to create good memories for their lifetime.
- Since the 1980s, technological progress and tourism have been growing significantly. For example; the Internet is considered as one of the most influential technologies that has changed the behaviors of travelers. Internet facilitates consumer's abilities to be involved directly with suppliers where it can provide facilities to consumers to customize their products and services (Buhalis and law, 2008).

1.3. THE ECONOMIC IMPACT OF TOURISM

Tourism has significant impact on the economy and it is important to emphasize that not only global economic factors affect tourism, but also social, cultural and environmental factors affect the touristic destinations. This effect could be either positive or negative (Vanhove, 2005).

The available literature and statistics show that tourism industry has important effects on the economy of nearly every country even during economic downturn. This effect is also applicable to advanced countries such as United States, which earns around USD 110 billion annually (Zurub et al., 2015).

Most of the countries receive significant amount of foreign currencies, generate more income and increase the employment opportunities. In particular, Mexico, Spain and Jamaica are considered as the leading countries for generating high income, employment and foreign currencies (Mathieson and Wall, 1982). Williams and Shaw (1988) also confirmed that tourism is important as an invisible export industry and the tourism related products are exported substantially. Nevertheless, tourism industry earns significant amount of money from visitors such that it has a positive influence on the balance of payment. Additionally, tourism is the key industry for generating short-term and long-term jobs inside and outside the country.

In another study, Vanhove (2005) further classified the economic impact into the following major groups: balance of payment and tourism, employment and tourism, tax revenue generation and tourism, regional development and tourism and economic growth and tourism.

1.3.1. Balance of Payment and Tourism

All income items generated from tourism flows can balance the national balance of payments. Generally, the balance of payments includes all those foreign aids, gold's, loans and gifts. The tourism activities affect the balance of payment with foreign currency reserve positively (Krause, 2005; Ardahaey, 2011).

Recently, deficit in the balance of payment is a serious problem of developing countries. As a result, developing countries try to generate more foreign currencies inflows in the economy through which they reduce the amount of risk from balance of payments since the value of currency of the developing countries are not very strong. Thano (2015) conducted a research about whether the tourism plays an important role on the balance of payment in the case of Albania or not. The findings point out that tourism inflow was a good alternative for generating foreign reserves and it had a positive impact on the balance of payments through the foreign currencies inflow into the economy. Thus, Thano (2015) concluded that the number of tourists and tourist receipts from tourism sector have a positive impact on balance of payments. Besides tourism, export of services also supported tourism sector in Albania.

Çelik et al. (2013) demonstrated that international tourism has significant effect on the balance of payment like an invisible export entry. For Turkey, among the developing countries, which suffered from foreign trade deficits, tourism was good alternative to close the gap between foreign trade and the balance of payments. Their empirical findings revealed an increase in tourism revenues between 1984 and 2012, which resulted in decrease on the balance of payments deficits.

1.3.2. Employment and Tourism

There has always been an argument that tourism creates employment opportunity. Mathieson and Wall (1982) and Ardahaey (2011) argued that tourism industry generally creates job opportunity through: (i) direct employment, where employment is gained from tourists' expenditure like paying for the accommodation such as hotels, (ii) indirect employment, referred to the tourists' indirect expenditures that create income for other sectors of economy and tourists' willingness to spend money outside of their residents e.g. payment for the taxi driver, candy, restaurant, entertainment facilities and travel agencies, (iii) induced employment, caused by additional expenditure of tourists at destination.

Indeed, tourism sector has a high capacity for creating jobs for semi-skilled and unskilled workers. Tourism sector also generates part-time jobs for workers in cafes, shops, restaurants and hotels. In addition, the other characteristic of tourism sector is up surging the employment opportunities for female workers both part-time and full time (Vanhove, 2005). Further, Kreag (2001) also studied and indicated that tourism industry generates an employment opportunity that covers jobs low level to high professional technical jobs. With the improvement of this sector not only the employment opportunities increases but also opportunities are created for investment, development and infrastructure spendings. In the same line with Elkan (1975), Buhalis, and law (2008) stated that tourism is not only helping bringing foreign currencies but also generates employment for the economy. However, there are researchers such as Thomas and Townsend (2001), who are against the optimistic view of tourism's positive economic impact.

1.3.3. Tax Revenue Generation and Tourism

The major taxes of government are generated from direct taxes and customs. Moreover, indirect taxes are subject to earnings from custom duties, repayment of loans and interest payment on goods and services that tourists consume during their stay at their destinations. The other sources of taxation for government are the entertainments and gambling centers such as casino tax, where local authorities generate high amount of money from such activities (Mathieson and Wall, 1982).

According to UNWTO (1998) tourists always come with inflows and there are many categories of taxes and fees related to tourism activities such as air and ship transport, visa fees, entry fee, exit charge, hotel and accommodation. Furthermore, the other taxes include value added tax, road traffic, taxes on alcohol, municipal, local taxes, fees and taxes for touristic areas and taxes on entertainment centers e.g. casino (Vjekoslav et al., 2012).

Gooroochurn and Sinclair (2005) state that there are around 45 different tax types, which are collected from tourists in developing and developed countries. Out of

45 various types of taxes, 30 types of taxes are directly collected from travelers and the remaining 15 are collected from other tourism related businesses (restaurant, coffee shops gambling centers etc). Although the charging may be different and it depends on demand supply and price elasticity (Vjekoslav et al, 2012). For the travelers, the accommodation is extremely important at destination thus, when the demand for accommodation (hotels) is elastic, the hotel may not increase the accommodation price and impose the tax on tourists. On the other hand, if the demand for accommodation remains inelastic in this case hotels can be able to increase the accommodation price, and tourists may not bear price charges and they seek for the cheap accommodation.

It is worth to mention that the tourism sector is important sector in Jamaica, and there is a discussion on whether tourism can be counted as the exports in the context of taxation. In fact, the export is the most important revenue of this country. Jamaica so far has good record of export that tourism sector has a positive role in generating foreign exchange in aggregate export (Sacks, 2012).

1.3.4. Regional Development and Tourism

Tourism can be seen as a backbone of a national economy. The benefits of tourism depend on the availability of investment such as hotels, golf courses, restaurants, tour agents and entertainment services. Tourism depends on the ability of national economy to supply the needs of tourists such as foods, hotel beds and souvenirs (Williams and Shaw, 1988).

Akgüngör et al. (2009) indicate that tourism industry is becoming a very important sector during the last two decades for regional development of Turkey. In their study, they particularly focus on the coastal of southwestern and western regions. They indicate that tourism has positive influence on regional development. However, they believe that the size of regional development depends on the characteristic of each region. In another study, Pratt (2015) argued that tourism has significant influence on the economic growth by raising the number of employment, increasing taxes and foreign

currencies, and increasing personal income. Thus, tourism plays a key role in terms of regional development.

1.3.5. Economic Growth and Tourism

This is a consensus that tourism generates employment opportunities and increases for the foreign exchange income. Initially, the general opinions of people were negative to this sector and tourism was not considered as a key sector for economic growth (Vanhove, 2005). However, the general opinion gradually changed and now a significant number of people, governments and international organizations support tourism as a determinant of economic development and they believe that international tourism can promote the long-run economic growth for specific destinations. Many scholars agree with the optimistic view of the influence of tourism. Some scholars pointed out that tourism industry has multiplier effects but could be difficult to measure in details (Wen and Tisdell, 2001). Numerous remarkable authors proved the validity of the tourism-led growth (TLG) on their respected papers, including Antonakakis et al. (2015) for European countries, Cortés-Jiménez et al. (2009) and Nowak et al. (2007) for Spain and Italy, Savaş et al. (2010), Akan et al. (2008) and Gunduz and Hatemi-J (2005) for Turkey, Brida et al. (2008) for Mexico, Dritsakis (2004) for Greece and Balaguer and Cantavella-Jorda (2002) for the Spain.

Furthermore, Wen and Tisdell, (2001) argued that tourism has been the only sector, which has grown very fast since the World War II. Obviously, tourism industry has increased the global income with the rising population, education level, and led reduction in the travel time and cost of transportation in the globalized world economy.

CHAPTER TWO

LITERATURE REVIEW

2.1. TOURISM ECONOMICS OF ASIA

There are many studies on the relationship between tourism expansion and economic growth with different findings. Researchers have used different econometrics models and methodologies in different periods. For example; Kim et al. (2006) investigated the relationship of tourism expansion and the economic development in Taiwan. They used the data from 1971: Q1 to 2003: Q4 and annually from 1956 to 2002. A Granger causality test was applied for cointegration to find the causality between economic growth and tourism expansion. Their findings show a long-run relationship and bidirectional causality between these two factors. In a related study, Chen and Chiou-Wei (2009) studied the relationship between tourism and economic growth in Taiwan and South Korea from the period 1975: Q1 to 2007: Q4 with similar development trends. They used real GDP, real exchange rate relative to USD exchange rate and tourism receipt variables in order to examine the direction of causality between economic growth and tourism expansion with an EGARCH model. Their findings provided information for governments on the economic policies that can support tourism and economic growth because these two factors reinforce each other in Taiwan. However, the results of Chen and Chiou-Wei (2009) indicate a different “reciprocal relationship” for South Korea with an emphasis on the need for successful tourism strategies. Consequently, the results supported the reciprocal relationship between economic growth and tourism expansion especially for Taiwan.

Studies on the relationship between tourism and economic growth for India have focused on a number of tourists and economic variables. For instance; Chaitip et al. (2008) studied the long-run relationship between tourism arrival and economic variables through panel cointegration for UK, USA, Canada, France, Germany, Japan, Malaysia, Australia, Singapore and South Korea. The economic variables consist of GDP,

transportation costs and the exchange rate. Their empirical findings supported the fact that positive changes in the income growth of major tourism source countries increase the number of international tourists' arrivals. In India, appreciation of the Indian local currency decreases the number of international tourists' arrivals from the aforementioned countries to India.

In a different study, Mishra et al. (2011) and Suresh et al. (2011) investigated tourism and economic growth using time series data for the years 1978-2009 in India and they found a long-run unidirectional causality from tourism activities to economic growth of the country.

Contrary to Suresh et al. (2011), Gautam's (2011) study indicated that tourism developments have short and long-run economic growth impacts in Nepal. Cointegration test was employed for long-run relationship and error correction model was used for the short-run dynamics. Their findings show that there exists a bi-directional causality between foreign exchange earnings from tourism and GDP growth in Nepal.

Similarly, Kreishan (2011) studied on causality relationship between tourism earnings and economic growth for Jordan during the period of 1970 and 2009. They used Augmented Dickey-Fuller (ADF) for unit root, Johansen and Juselius (JJ) for cointegration and Granger causality test for causal relationships. The findings show that there was a positive long-run relationship between the tourism development and economic development. Further, there is a unidirectional causality from tourism earnings to economic growth.

Likewise, Srinivasan et al. (2012) studied Autoregressive Distributed Lag (ARDL) bound testing approach on tourism and economic growth in Sri Lanka from 1969 to 2009. The results indicate that tourism had short and long-run positive impact on economic growth of Sri Lanka. Furthermore, Kadir and Karim (2012) investigated tourism and economic growth in Malaysia. They focused on tourist arrivals from Singapore, Indonesia, Thailand, Brunei and Philippines for the period between 1998 and 2005. The result of the panel causality test shows the existence of relationship between international tourism receipts and real economic growth both in the short- and long-run.

Moreover, Zhang et al. (2015) examined tourism and economic sustainability for the two cities of China; Sanya and Zhangjiajie. They investigated sustainable growth using cities as special cases to apply accounting growth model to evaluate the contribution of different input factors and the total factor of productivity for economic growth. The economic growth of the two cities is capital driven. The findings suggested that extensive tourism specialization could not promote the long-term economic growth. Contrary to Zhang et al. (2015), Nonthapot (2014) indicated short-and long-run causality relationship between tourism and economic development in the greater Mekong Sub-Region such as Myanmar, Cambodia, Lao PDR, Thailand, Vietnam and the Yunnan, Guangxi provinces of China. Their study shows the short- and long-run unidirectional causality from international tourist arrivals to economic development.

Parallel to prior studies, the current studies mainly discussed the positive effects of tourism on economic development. Saleh et al. (2015) investigated the tourism and economic growth in the Middle East region. They applied advanced panel cointegration dynamic model over the period from 1981-2008 for Bahrain, Jordan and Saudi Arabia. Their findings show long-run relationship between tourism growth and GDP.

The long-run relationship between international tourism and economic growth was also studied by Jalil et al. (2013). They used data from 1972 to 2011 for Pakistan. Their findings reveal that causality exist between tourism and economic growth. In addition, regression analysis show that international tourism along with other variables such as physical, capital and international trade had a significant positive impact on economic growth of Pakistan. Similarly, Trang and Duc (2013) conducted a study on the contribution of tourism on the economic growth of Vietnam from 1997 to 2011. They used GDP as a measure of economic growth and applied time series techniques including unit root test, cointegration, VEC and Granger causality tests. Their results reveal that tourism is an important factor for economic growth for Vietnam.

2.2. TOURISM ECONOMICS OF AFRICA

According to Fayissa et al. (2007), African countries have been one of the highest incoming tourist destinations with 37 million tourist arrivals in 2005. As discussed by them, the empirical studies were performed to analyze the contribution of tourism on economic growth and development of the African economies. A panel data of 42 African countries was used for the years between 1995 and 2004. The results present that income from the tourism industry contributed to the current level of GDP and economic growth of Sub-Saharan African countries.

Tourism is indeed a labor-intensive industry, which not only creates many employment opportunities for local population but also enables countries to generate foreign currency (Durberry, 2004). In this regard, Durberry (2004) used cointegration and causality tests for the period of 1952-1999 to confirm that tourism had positive impacts on the Mauritius economy. The author argued that tourism growth strategies are better than the “import substitution strategy” for the developing countries.

Similarly, Meyer and Meyer (2015) investigated tourism and local economic development for the Metsimaholo and Emfuleni in South Africa. Their empirical results demonstrated that tourism trips in both areas have shown a steady growth from 2001 to 2013. They argued that tourism sector requires relatively low skills that potentially create employment for both formal and informal sectors. Further, tourism is a good substitution to improve a country’s balance of payment. Additionally, the findings confirm that tourism is a key element for economic development and has positive effect on alleviation of unemployment and poverty within region.

In another study, Odhiambo (2012) attempted to investigate the relationship among tourism development, employment and economic growth using the ARDL bounds testing procedure. Their study aimed at finding whether the development of tourism sector in Zambia leads to economic growth or not. The empirical results show that there was a clear causal flow from tourism development to economic growth in Zambia. Thus, the results of the study supported the tourism led-economic growth hypothesis.

On the contrary, Balcilar et al. (2014) discussed tourism receipts and economic growth in South Africa, where they used time varying coefficient estimation methods to analyze the parameter of stability and the Granger causality based on VECM. According to the results, there was no Granger causality between tourism receipts and GDP for South Africa from 1960-2011. Moreover, Mohamed Karim and Njoya (2013) examined inbound tourism and its effects on the economy of Kenya. The main results of their study show that the economic benefits from tourism activities in Kenya were small. However, the findings of Balcilar et al. (2014) show positive relationships between tourism receipts and GDP with bidirectional causality for South Africa.

In their studies, Akinboade and Braimoh (2010) and Belloumi (2010) performed Granger causality test to empirically figure out the impact of international tourism on the economic growth for South Africa and Tunisia in different time periods. Akinboade and Braimoh (2010) studied international tourism and economic development in South Africa between 1980 and 2005. The variables used in the study of Akinboade and Braimoh (2010) consist of GDP, international tourism earnings, real effective exchange rate and exports. The authors argued that one of the macroeconomic policies that enabled South Africa to sustain economic growth was international tourism. The variables used by Belloumi (2010) include real GDP, international tourism and real exchange rate. Nevertheless, the findings in both studies indicate unidirectional causality between tourism and economic growth both in the short and long-run.

2.3. TOURISM ECONOMICS OF AMERICA

Martin et al. (2004) conducted a study to establish the relationship between tourism and economic growth for Latin American countries. The analysis was based on the two different panel data approaches; the Arellano-Bond estimator and generalized least squares AR(1). The data covers the period from 1985 to 1998. The results reveal that tourism sector is a key factor for the economic growth for medium and developing countries. Tourist arrivals depend on GDP and other factors such as, price, safety, education level, and investment in the infrastructures. Therefore, it is important for

developing countries to maintain a good level of infrastructure, education quality to attract more tourists. Martin et al. (2004) further suggested that medium income countries needed to focus on high-level social development sectors such as health care services and high GDP per capita levels.

Similarly, Lorde et al. (2011) investigated tourism and economic growth in Barbados and analyzed the relationship among international tourist arrival, real GDP and real exchange for the period between 1974: Q1 and 2004: Q4. Their results suggest that the importance of real exchange rate and its directional relationship depend on how output is determined statistically. Further, they show the existence of long-term relationship between tourist activity and economic growth. However, they warned the policymakers not to over expect from tourism sector but to focus on other sectors as well such as agriculture, food and beverage to stimulate the economy.

Like Lorde et al. (2011), the results of Ridderstaat et al. (2014) indicated that tourism is not the only engine for long-run economic growth. They concluded that there exists a reciprocal relationship among all analyzed variables and economic growth.

For Latin America, Fayissa et al. (2011) recommended that Latin American countries should improve their strategies in order to invest in tourism industry. They used panel data for the period from 1990 to 2005 with a framework of the conventional neoclassical growth model for 18 heterogeneous Latin American countries. Their results show that receipts from tourism industry had a positive impact on current level and the growth rate of per capita GDP of the countries in the region. For example, 10% increase in international tourists spending results in 0.78% increase in the real GDP per capita. The Latin American economies could enhance their economic growth through their traditional sources of economic growth.

In another study, Brida et al. (2008) conducted an impulse response analysis and argued that a shock in tourism expenditure causes a short fall in GDP in Mexico using the date between 1980 and 2007. In a recent study, Amaghionyeodiwe (2012) investigated the causal relationship between tourism and economic growth of Jamaica for the tourism receipts and GDP between 1970 and 2005. Amaghionyeodiwe (2012) used the multivariate cointegration and VEC model to find the causal relationship

between economic growth and tourism. The findings supported the existence of long-run positive relationship between economic growth and tourism.

2.4. TOURISM ECONOMICS OF AUSTRALIA

There are many studies regarding the impact of tourism growth on the GDP. For example; Corrie et al. (2013) studied tourism and economic growth in Australia from 2000 to 2010. They used Granger causality approach to find the relationships between tourism expenditure and GDP. Their findings indicate that there was a bi-causal link between tourism and economic growth, implying a possible existence of tourism-led endogenous growth.

In another study, Forsyth et al. (2014) examined the barrier and inhibitor component such as Australia's passenger movement charge (PMC) to better analyze the relationship between tourism and economic growth. Their results confirmed the negative impact of PMC on tourism sector but positive effect on Australia's economy. Their study shows that tourism sector is the loser as Australia is already an expensive tourism destination.

2.5. TOURISM ECONOMICS OF EUROPE

Tourism industry plays a vital role in the world's economy. Lazar and Pop (2012) investigated the relationship between tourism demand and economic growth in Romania for the period from 1991 to 2011 by using the VEC and cointegration models. Their findings supported the long-run relationships between tourism demand and economic growth.

In a different study, Antonakakis et al. (2015) examined the linkage between tourism and economic growth in Europe. The spillover index approach was used for monthly data for 10 European countries for the period between 1995 and 2012. The findings of the study demonstrated that tourism and economic growth relationship is not stable over time with respect to both magnitude and direction. The results indicate that

tourism-led economic growth (TLEG) and the economic driven tourism growths (EDTG) hypothesis are time dependent and economic event dependent. The results can be attributed to the fact that the relationship was influenced by the Great Recession of 2007 and the debt crisis of Eurozone in 2010.

In their comprehensive study, Paci and Marrocu (2013) analyzed the impact of domestic and international tourism on the economic growth of 179 selected European regions. The data between 1999 and 2009 was analyzed based on the Spatial Autoregression model, where the rate of GDP per capita growth at the European region depended on tourism flows. The results indicate that both national and international factors of tourism significantly contributed to regional economic growth in Europe.

Chou (2013) also studied tourism spending and economic growth for 10 transitional countries; Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Poland, Romania, Slovakia and Slovenia and found country specific effects. He used panel Granger causality for the periods from 1988 to 2011. The empirical findings show a unidirectional causal links between tourism spending and economic growth for Cyprus, Latvia and Slovakia. An increase or decrease in tourism directly affects economic growth. However, the findings also show that there was no linkage between economic development and tourism for Slovenia, Bulgaria and Romania. Contrary to Cyprus, Latvia and Romania. There is an inverse relationship among the variables for Poland and Czech Republic.

2.5.1. Tourism Economics of Greece

Dritsakis (2004) studied tourism and its impact on the long-run economic growth for Greece during the period of 1960: Q1 and 2000: Q4 by using Multivariate Autoregressive (VAR) model. The outcomes of cointegration analysis show that the real GDP, real effective exchange rate and international tourism earnings were cointegrated. In addition to the Granger causality test, the results of Error Correction Models (ECM) indicate that there was a “strong Granger causal” relationship among the international tourism earnings, economic growth with real exchange rate and economic growth. In

another study, Bayramoğlu and Arı (2015) investigated the tourist expenditure effects on the economic growth of Greece between 1980 and 2013 by using the Granger causality test. The results indicate that there was a strong unidirectional causality from tourists' expenditures to economic growth of Greece.

2.5.2. Tourism Economics of Spain

Nowak et al. (2007) studied tourism impact on the economic growth through import of foreign capital for Spain from 1960 to 2003. They used real GDP, real tourism exports and imports of industrial goods and machinery. They linked export-led growth (ELG) and tourism-led growth (TLG) and further argued that tourism increases the capital formation through import of foreign currency. Based on their findings, they recommended that countries should adopt differentiated tourism services policy in order to grow faster.

Consistent with the results of Nowak et al. (2007), Cortés-Jiménez et al. (2009) confirmed the tourism-led growth hypothesis and export-led growth hypothesis for Spain and Italy. The study was conducted by using the standard cointegration and Granger causality tests based on data from 1964 through 2000 for Spain and from 1954 through 2000 for Italy.

In a similar way, the results of Balaguer and Cantavella-Jorda (2002) are in support of the TLG hypothesis by using Johansen's cointegration and Granger causality tests. Their study aimed at assessing the importance of tourism in the long-run economic growth by using data between 1975 and 1997. Their findings indicate that international tourism had positive impact on the Spanish economy and argued that a 5% increase in sustained growth in foreign exchange earnings" will result into 1.5% national real income in the long-run. In agreement with Nowak et al. (2007), Balaguer and Cantavella-Jorda (2002) recommended government to promote policies towards increasing tourism activity.

2.5.3. Tourism Economics of Italy

Massidda and Mattana (2013) performed Structural Vector Error Correction (SVECM) to find the long- and short-run relationship among the real GDP, per capita international tourism arrivals and total international commercial transactions for the Italian economy. The data was from 1987: Q1 to 2009: Q4. The findings show along-run and bi-directional relationship between the real GDP and the international tourist arrivals. Moreover, the findings indicate unidirectional long-run casual relationship from real GDP to international commercial transaction and from international commercial transaction to international tourist arrivals. They recommended to plan special tourism programs due to bidirectional link between economic and tourism growth.

In response to importance of tourism in the economy, Cortés-Jiménez (2008) focused on international and domestic tourism and their effects on economic growth for Italian and Spanish regions. The author used dynamic panel data techniques based on the geographical location, coastal regions, internal regions and regions with Mediterranean coast for the period from 1990 to 2004. The findings suggest that both international and domestic tourism were important and had positive role in regional economic growth for Italy and Spain.

2.6. TOURISM ECONOMICS OF TURKEY

Tourism led growth hypothesis (TLGH) is recently one of the growing areas that developing countries are studying and investigating its short and long-term effect on GDP. Gokovali (2010) argued that tourism industry, in addition to its contribution to economic growth, stimulates growth in other sectors due to its forward and backward linkages.

Gunduz and Hatemi-J (2005) studied tourism and economic growth in Turkey using data from 1963 to 2002. They tested the causality effect between variables using the leveraged bootstrap causality tests. The variables studied in the paper were the number of tourist arrival, the real GDP and the real exchange rate. The results supported

the tourism led-growth hypothesis in Turkey. Furthermore, they argued that tourism in developing countries creates employment, helps countries with import of foreign capital, and increases the Gross National Product (GNP).

Contrary to results of Gunduz and Hatemi-J (2005), Katircioglu (2009) who used the bounds test and Johansen cointegration within the Autoregressive Distributive Lag (ARDL) model approach, found that there was no cointegration and causality running from tourism to economic growth for the period between 1960 and 2006. Thus, the study rejected the TLG hypothesis for the Turkish economy.

However, Savaş et al. (2010) contradicted with the findings of Katircioglu (2009) by supporting TLG hypothesis for the Turkish economy. Their findings indicated that there was a long-run unidirectional causality from international tourism and real exchange rate to economic growth based on the tourist expenditures and tourist arrivals model. They used ARDL approach for cointegration from 1985: Q1 to 2008: Q3 and argued that tourism is a key foreign exchange earning source to compensate current deficits. Hence, tourism plays crucial role to stimulate national development and economic growth.

In another study, Gokovali (2010) investigated the contribution of tourism industry to the Turkish economy. To accomplish this objective, he used the Ordinary Least Square (OLS) for the period between 1985 and 2005. The findings of the study clearly show the importance of tourism for the Turkish economy especially after the implementation of policies, which were adopted during 1980s. The adoption of these policies contributed to higher tourism export and GNP. Moreover, the results of the study suggest that tourism was one of the main determinants of GNP due to increased numbers of tourist arrivals and its revenues besides investment.

Akan et al. (2008) empirically tested the casual relationship between tourism and economic growth in Turkey. The variables studied in their work were tourism incomes and economic growth rate for the period from 1985 to 2007. The Phillips-Perron test, cointegration approach, Granger causality test and Vector Auto Regression (VAR) model were used to investigate the impact of tourism on the economic growth in Turkey. The analyses indicate that there was a long-run relationship between the tourism and the

economic growth. The international tourism revenue positively contributed to the Turkish economy with more than \$10 million. The study by Akan et al. (2008) is in favor of the tourism led-growth hypothesis. Many other studies including Samirkaş and Samirkaş (2014); Bahar (2006) and Uysal et al. (2004) confirm the positive relationship between tourism and economic growth of the Turkish economy.

As a contradictory approach, Ozturk and Acaravci (2009) find that there was no long-run relationship between the real GDP and international tourism. Thus, they argue that the tourism-led growth hypothesis was not applicable for the Turkish economy.

In another study, Yavuz (2006) investigated the causal relationship between tourism growth and economic growth for the period between 1992: Q1 and 2004: Q4. The results of Granger and Toda-Yamamoto models confirm that there was no causality from tourism receipts to economic growth.

Similar to the study of Yavuz (2006), Topalli (2015) examined the relationship between tourism and economic growth for the period from 1963 to 2011. He reported that there was no causality from tourism to economic growth and vice versa. However, in the same study, results of Granger causality based on the VEC model showed that there was unidirectional causality from tourism to economic growth.

A research conducted by Kizilgöl and Erbaykal (2008) also failed to verify the existence of causality between tourism and economic growth for the period from 1992: Q1 to 2006: Q2 for Turkey. Interestingly, contrary to the initial hypothesis, their findings based on the Toda-Yamamoto approach and proved the existence of unidirectional causality from economic growth to tourism revenues.

In another study, Yıldırım and Öcal (2004) reported that there was no short-run relationship between tourism and economic growth for the period from 1962 to 2002. Their results reveal that tourism revenues could boost the Turkish economic growth in the long-run.

CHAPTER THREE

DATA AND METHODOLOGY

3.1. DATA

The annual data between 1963 and 2015 were used with the aim of studying the role of tourism on the economic growth in the context of the Turkish economy. The variables included in this study are; Gross Domestic Products (GDP) and GDP Growth Rate (GDPGR). In addition, numbers of tourist arrivals (NT) are used as a proxy for tourism. The GDP and GDP growth rate data were obtained from World Bank website (worldbank.org)¹. Data on number of tourists' were collected from the official database of Ministry of Culture and Tourism (www.kultur.gov.tr)². The data on these variables have been reported on yearly basis.

To test the causal relationship between tourism and economic growth in the Turkish economy, a OLS (Ordinary Least Square) regression model was applied as follows:

$$U = (\beta_0 + \beta_1 NT_t + \beta_2 GDP_t + \beta_3 GDPGR_t) \quad (1)$$

To establish the causal relationships, a OLS is formulated with the vector U defined in Equation (1).

In an attempt to investigate the effect of tourism on the economic growth, the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests were first applied to analyze the stationary situations of series. Later, Johansen cointegration test was used to test the existence of long-run relationship among economic growth and

¹Data Source: World Bank, www.worldbank.org (Accessed 10th November 2016)
<http://databank.worldbank.org/data/reports.aspx?source=2&series=NY.GDP.MKTP.CN&country=TUR>

² Republic of Turkey Ministry of Culture and Tourism, www.kultur.gov.tr (Accessed 15th November 2016). <http://yigm.kulturturizm.gov.tr/TR,9854/sinir-giris-cikis-istatistikleri.html>.

other independent variables. Finally, the Wald Granger causality test was used to examine the relationship between the tourism and the economic growth in Turkey.

The research question of this thesis is based on the hypothesis:

H_0 : The number of tourist arrivals has a positive effect on the economic growth in Turkey.

3.2. METHODOLOGY

The methods used in this study includes unit root tests, Johansen cointegration and Granger causality tests.

3.2.1. Unit Root Tests

Unit root tests are used to assess whether the time series are stationary or not. The unit root test begins with the AR(1) process in its simplest form, and it checks whether the series are stationary or not:

$$y_t = \alpha + py_{t-1} + u_t \quad (2)$$

$$u_t = a + pu_{t-1} + \varepsilon_t \quad (3)$$

If $p < 1$, y_t has a constant, positive and independent variance from time, $cov(y_t, y_s)$ is independent of t and s , then it is a limited function of $|t-s|$. $E(y_t)$ is also independent from time, in other words, y_t is determining the stationary process. If $p \geq 1$, the variance and covariance are indeterminate and the series has unit roots (Greene, 2003).

$$H_0: p = 1$$

$$H_1: p < 1$$

$|p| < 1$, y_t is the stationary process of AR(1), whereas y_t does not contain the unit root. Thus, the $p=1$ null hypothesis is a test under the alternative hypothesis ($p < 1$), then y_t is I(1), the null hypothesis is against the alternative, y_t is I(0) (Wooldridge, 2012).

3.2.1.1. Augmented Dickey-Fuller (ADF) Test

Dickey and Fuller (1979) developed the unit root test to examine whether the series observed in the study were stationary. The first difference is taken from both sides of AR(1) to perform the Dickey-Fuller unit root test. The difference between the pure random walk models is stationary or, $\Delta y_t = \varepsilon_t$. Dickey- Fuller is aimed at testing whether the series have unit roots or not (Enders, 2003).

Dickey and Fuller (1979) presented the three different equations, which can be applied to test the existence of unit root:

$$\text{Pure Random Walk} \quad \Delta y_t = \gamma y_{t-1} + \varepsilon_t \quad (4)$$

$$\text{Intercept or Drift term} \quad \Delta y_t = \alpha + \gamma y_{t-1} + \varepsilon_t \quad (5)$$

$$\text{Drift and Linear time trend} \quad \Delta y_t = \alpha + \delta t + \gamma y_{t-1} + \varepsilon_t \quad (6)$$

$$H_0: \gamma = 0$$

$$H_1: \gamma < 0$$

In Equations (4), (5) and (6), γ is nothing other than $(p - 1)$. Under the null hypothesis y_{t-1} remains stationary after the first difference. Thus, the t-statistic does not have normal distribution, even in the large sample, since the central limit theorem is not applied (Wooldridge, 2012).

In Dickey-Fuller (DF) test, we may face the problem of autocorrelation. Dickey-Fuller expanded the DF unit root test with autoregressive process allowing higher degrees. The lagged value of the dependent variable is added to the right side of the Dickey-Fuller equation. For example; the equation and hypotheses of the ADF unit root test are given in the context of there is only a pure random walk model (Enders, 2003).

$$\Delta y_t = \gamma y_{t-1} + \sum_{i=2}^p \beta_i \Delta y_{t-1+i} + \varepsilon_t \quad (7)$$

$$H_0: \gamma = 0$$

$$H_1: \gamma < 0$$

To establish the relationship between tourism and economic growth, different authors have used different econometric approaches. The preliminary and crucial purpose of the analysis is to test whether the series have unit root characteristic or not. Lorde et al. (2011) used the Augmented Dickey-Fuller test that was developed by the Dickey-Fuller (1979, 1981) in the context of Barbados. Moreover, Kum et al. (2015) also used the ADF test for the number tourist arrivals and GDP for 11 countries. In a similar study, Katircioglu (2009) used the ADF to test the integration level among the real GDP, number of international tourist and real exchange rates in Turkey. Similarly there are a number of other studies including Erkan et al. (2013); Odhiambo (2012); Savaş et al. (2010); Massidda and Mattana (2013); Bayramoğlu and Arı (2015); Ridderstaat et al. (2014) and Ozturk and Acaravci (2009) that used the ADF unit root test for different countries.

3.2.2. Cointegration

Most of the time series are non-stationary and have a trend component. It is suggested that these series should be stationary to get rid of the trend problem (Greene, 2003).

Several cointegration tests such as Granger (1981), Granger and Weiss (1983), Granger and Engle (1985) and Engle and Granger (1987) have been developed to demonstrate the long-term relationship between time series. Engle and Granger (1987) developed a two-stage test to analyze cointegration. In the first step, the regression is estimated and in the second stage the unit root test is applied on the regression residuals, which were estimated in the first step. It turns out that there is a cointegration or a long-term relationship between the series when residuals are stationary. By considering the two series (y_t and x_t) following is $I(1)$. If $y_t - \beta x_t$ (residuals) are in a stationary process, then y_t and x_t are coherent. The linear combination of these series is also called the cointegration vector (Wooldridge, 2012).

Cointegration analysis is carried out to determine whether there is a long-term relationship between the series. By taking difference between the non-stationary series and the use of them in the regression remove the long-term relationships of the series. Therefore, cointegration analysis gains importance in distinguishing between short and long-term relationships.

3.2.2.1. Johansen Cointegration

Johansen (1988) studied cointegration analysis in the framework of the Vector Autoregressive Process. The Johansen method is more advantageous since it takes into errors account in the analysis and can determine the maximum number of cointegration vectors.

The starting point of Johansen cointegration method in VAR is:

$$\Delta y_t = \mu + \pi y_{t-1} + \sum_{i=1}^{p-1} r_i \Delta y_{t-i} + \varepsilon_t \quad (8)$$

In Equation (8), y_t , represents the vector of ($n \times 1$) variables. $\pi = \alpha\beta$ and the matrix of α and β ($p \times r$) parameters. r is presents the number of cointegration. y_t is the integrated in first order I(1). In order to have a long-term relationship between the series, the rank of the π matrix should be at least one. If the rank of this matrix is zero, there is no cointegration between the series. Johansen has developed two test statistics to determine the number of cointegration vectors; trace and maximum eigenvalue statistics:

$$J_{trace} = -T \sum_{i=r+1}^n \text{Ln}(1 - \lambda_i) \quad (9)$$

$$J_{max} = -T \text{Ln}(1 - \lambda_{r+1}) \quad (10)$$

Where T is the i -th largest canonical correlation of the sample volume λ_i , Δy_t and y_{t-1} (after correcting the lags differences and deterministic variables). Cointegration process starts with the $r = 0$ hypothesis, and when the hypothesis is accepted, the cointegration testing process stops. In the case of rejection, the $r \leq 1, r \leq 2, \dots$ hypothesis are tested and processed sequentially. The process ceases at the r th level, where the first null hypothesis is accepted (Hjalmarsson and Österholm, 2009).

The maximum likelihood methods have been used to test the presence of long-run relationship between the variables through the Johansen cointegration (1988) analysis in the VAR framework. Similarly, Ozturk and Acaravci (2009) established the relationship between the tourism growth and economic growth variables through Johansen cointegration. In the same way, there are other authors, who used this method

as well (Massidda and Mattana, 2013; Erkan et al., 2013; Lorde et al., 2011; Katircioglu, 2009; Lazar and Pop, 2012).

3.2.3. Granger Causality

One of the most important issues in the subject of time series econometrics is to perform causality tests. To define the hypothesis of Granger causality, it is crucial to review the concept of causality introduced by (Granger, 1969 and 1980). If we let $I_{it}; i = 1, 2$; be the information set of the time series Y_{it} available at period t , and let $I_t = (I_{1t}, I_{2t})$. Then, as defined in Granger (1980), Y_{2t} is said to Granger cause Y_{1t} with respect to I_{t-1} (Mantalos and Shukur, 2010).

$$E(Y_{1t}|I_{1t-1}) \neq E(Y_{1t}|I_{1t-1}) \quad (11)$$

The Vector Autoregression (VAR) model is likely to be used for this purpose. However, Granger (1988) recognized that if a set of variables are cointegrated, there must be a short and long-run causality, which cannot be captured by the standard first difference VAR model (Tang, 2011).

Therefore, Engle and Granger (1987) and Granger (1988) figured out that if the two variables are cointegrated, then at least there is chance of one directional Granger causality. By the cointegration of tourism and economic growth at order (1,1), the VAR model can be performed based on the levels of the data (Engle and Granger, 1987). The causality test between tourism and economic growth entails estimation according the following bivariate regressions:

$$NT_t = \mu_1 + \sum_{i=1}^1 \alpha_{1i} NT_{t-i} + \sum_{i=1}^1 \beta_{1i} GDP_{t-i} + e_{1t}, \quad (12)$$

$$GDP_t = \mu_2 + \sum_{i=1}^1 \alpha_{2i} GDP_{t-i} + \sum_{i=1}^1 \beta_{2i} NT_{t-i} + e_{2t}, \quad (13)$$

$$GDPGR_t = \mu_3 + \sum_{i=1}^1 \alpha_{3i} GDPGR_{t-i} + \sum_{i=1}^1 \beta_{3i} NT_{t-i} + e_{3t}, \quad (14)$$

Where μ presents the deterministic component, e_t is white noise, NT, GDP and GDPGR represent tourism and economic growth variables respectively.

When the variables are cointegrated in a long-run, the null hypothesis of the Granger causality test suggests that Tourism does NOT Granger-cause Economic Growth cannot be rejected if;

$$H_0: \beta_{11} = \beta_{12} = \dots = \beta_{1l} = 0. \quad (15)$$

$$H_1: \beta_{11} \neq \beta_{12} \neq \dots \neq \beta_{1l} \neq 0. \quad (16)$$

In the same way, the null hypothesis that Economic Growth does NOT Granger-cause the Tourism cannot be rejected if;

$$H_0: \beta_{21} = \beta_{22} \dots = \beta_{2l} = 0. \quad (17)$$

$$H_1: \beta_{21} \neq \beta_{22} \neq \dots \neq \beta_{2l} \neq 0. \quad (18)$$

Essentially, the Granger causality test is established to examine whether the past value of one variable can cause the prediction of present values of another variable. Lorde et al. (2011) performed the Granger causality test between international tourist arrivals and real GDP for Barbados. Furthermore, Ridderstaat et al. (2014) used Granger causality for the tourism development, international visitors and real GDP. In a similar way, Lazar and Pop (2012), Erkan et al. (2013), Bayramoğlu and Arı (2015), and Savaş et al. (2010) also performed the Granger causality test in their studies.

CHAPTER FOUR

EMPIRICAL FINDINGS

This chapter provides the empirical findings of the thesis. As mentioned in the third chapter, this thesis is analyzing the tourism and economic growth for the period between 1963 and 2015. The descriptive statistics show the number of tourist arrivals (NT), gross domestic products (GDP) and GDP growth rate (GDPGR).

During the empirical analyses, a number of tests has been performed. Initially, unit root test has been applied to test the stationary. Augmented Dickey-Fuller and Phillips-Perron methods are carried out for this purpose. Furthermore, Johansen cointegration test was performed to find out the short-run and long-run associations between the variables. Finally, the Granger causality was tested to show the relationship between the number of tourists, GDP and GDP growth rates.

Table 1: Summary of Descriptive Statistics for NT, GDP and GDPGR in Turkey

	Number of Tourist Arrivals	GDP \$ (Millions)***	GDP Growth %
Mean	9423459	229000	4.544647
Median	4459151	107000	4.971081
Standard Deviation	11100000	259000	3.947515
Minimum	198841	10400	-5.697476
Maximum	36800000	823000	11.21282
Skewness	1.244921	1.228525	-0.7994283
Kurtosis	3.225948	3.03509	3.291366

Note: *** Descriptive Statistics for GDP USD in Turkey Estimated as a *** (Millions, 1000000).

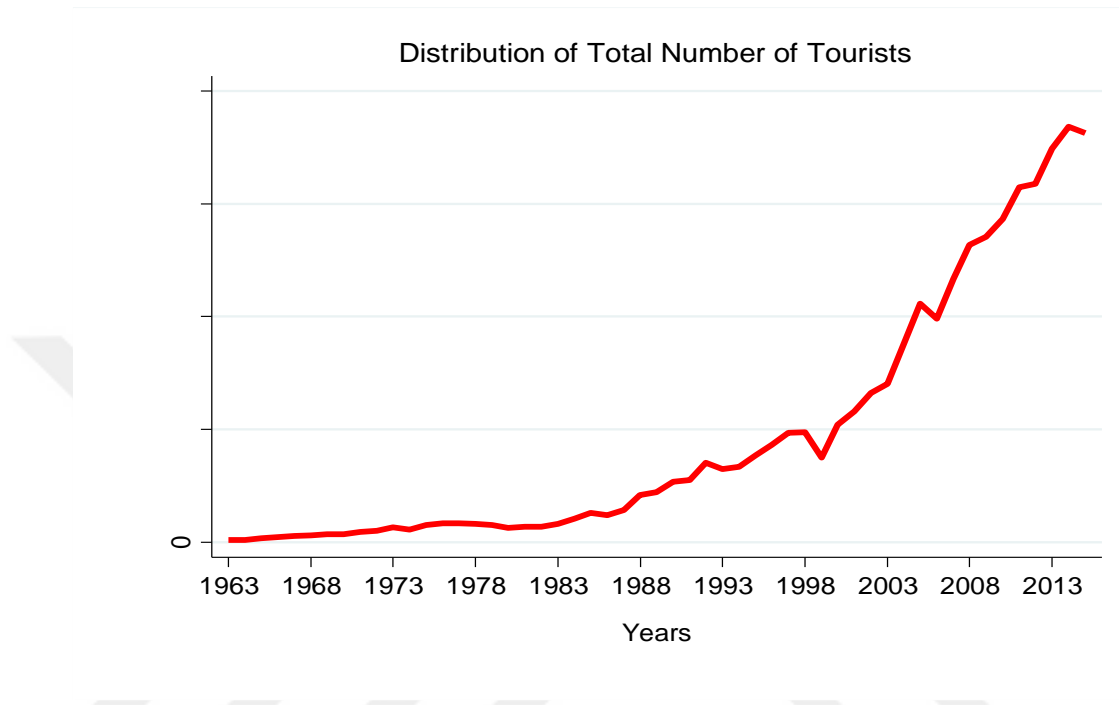
Data Source: World Bank, www.worldbank.org (Accessed 10th November 2016), and Republic of Turkey Ministry of Culture and Tourism. www.kultur.gov.tr (Accessed 15th November 2016).

Table 1 presents the summary of descriptive statistics for the number of tourist arrivals, GDP and GDP growth rate from 1963-2015 for the Turkey. The mean value for the number of tourists between 1963 and 2015 is 9,423,459 and the median is 4,459,151. The standard deviation is 11,100,000. The minimum number of tourist arrivals for the 52 years is 198841 and the maximum tourist arrivals is 36,800,000. Furthermore, the results show that the number of tourists has a positive skewness of 1.244921. The kurtosis value is 3.225948, which is almost equal to 3, implying that the sample is almost distributed normally. Therefore, the coefficient of kurtosis becomes Mesokurtic.

The findings suggest that the mean value for the GDP is 229000 million with the median of 107000 million and the standard deviation of 259000 million (Table 1). The skewness is 1.228525,. The frequency of distribution is skewed positively and tails of data set lie on the right side of distribution line. Furthermore, the kurtosis value for the GDP is positive (3.03509) and the coefficient of kurtosis becomes Mesokurtic.

The descriptive statistics for the GDP growth rate has a mean value of 4.544647, a median of 4.971081 with a standard deviation of 3.947515. The GDP growth rate ranges from -5.697476 to 11.21282. The skewness is -0.7994283. The frequency of distribution is skewed negatively and this indicates that the tails of data lie on the left side of distribution line. However, GDP growth rate has positive kurtosis of 3.291366, which makes the coefficient of kurtosis Mesokurtic.

Figure 2: The Distribution of Total Number of Tourist Arrivals



The tourism sector has grown incredibly in recent years. In particular, the tourist arrivals have been increasing significantly since 1963. Figure 2 presents the total number of tourist arrivals from 1963 to 2015. Thus, Turkey successfully implemented three periods for the development of Turkish tourism sector. The first period was implemented between 1963 and 1982 and it is referred to as the period of state-led tourism policies. In this period, Turkish tourism experts developed huge projects such as development of south Antalya tourism project, standardized rules for tourism establishments, certified accommodation, and daily catering facilities for tourists' arrivals. Consequently, the number of tourists smoothly augmented during this period. In spite of the increase in the number of tourists between 1963 and 1982, the tourism experts expected more international tourist arrivals and tourism receipts. Therefore, they developed the second phase from 1982 to 2003 (Barın, 2014).

The aim of the second phase was to encourage private sector to invest in the tourism sector. The experts enacted a tourism encouragement law, demarcated tourism

centers, trained tourism staff, encouraged allocation of land for tourism investors and implemented the land use plan. The second phase resulted into an increase in infrastructure development, diversification and control of tourism establishments.

The growth in the number of tourists is clearly illustrated in Figure 2. However, there was an apparent light decline in the number of international tourists for the year 1994. This could be the result of the financial crisis faced by Turkey. Similarly, in 1999, a massive earthquake took place in Turkey. The earthquakes led to the decline in the number of international tourist to 7487285 in 1999 in comparison with 9752697 number of international tourists in 1998 (Republic of Turkey Ministry of Culture and Tourism, 2016).

On the contrary, the currency crisis, particularly, the devaluation of Turkish lira against US dollar in 2001 had a positive impact on international tourism. Accordingly, the number of international tourists significantly increased and as a result, the Turkish tourism trends increased considerably (Özatay, 2002).

The year of 2004 marked the beginning of the third phase of the Turkish tourism sector development. The main objective of this phase was diversification in the tourism sector for better sustainability. The key areas under promotion focus were brand creation, expansion of the tourism sector by identifying new investment areas, promotion of ecological and economical productivity and diversification of tourism products (Barin, 2014).

According to Ministry of Culture and Tourism (2014), the Turkish tourism had significant growth over years and Turkish tourism sector has witnessed huge number of tourists. Based on the World Tourism Organization (2014), Turkish tourism sector has been ranked as the sixth in terms of receiving the tourists after Italy with around 47 million international tourists. Despite the significant improvements in this sector, the tourism revenues shrank in 2015. The political problems in the region and terrorist attacks caused a huge declined in the tourism activities. The number of arrivals also drastically decreased. In 2015, the total numbers of tourists fell to 17.4 million in the first eight months.

Figure 3: The Distribution of GDP (USD Dollars –Millions)

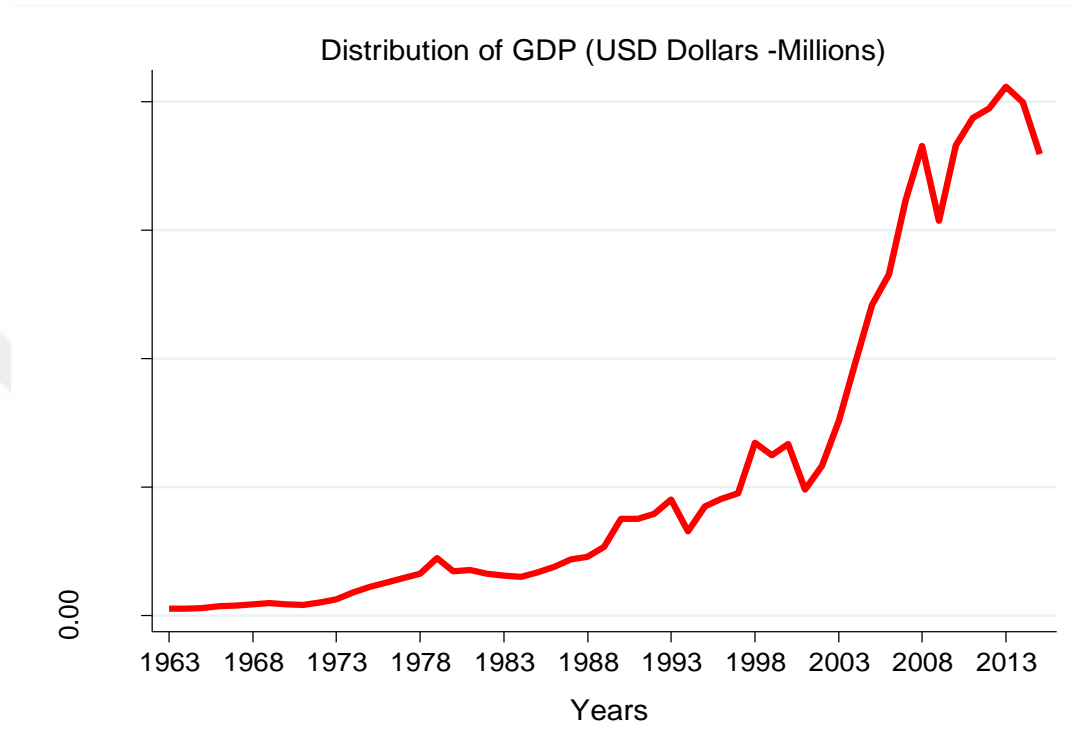


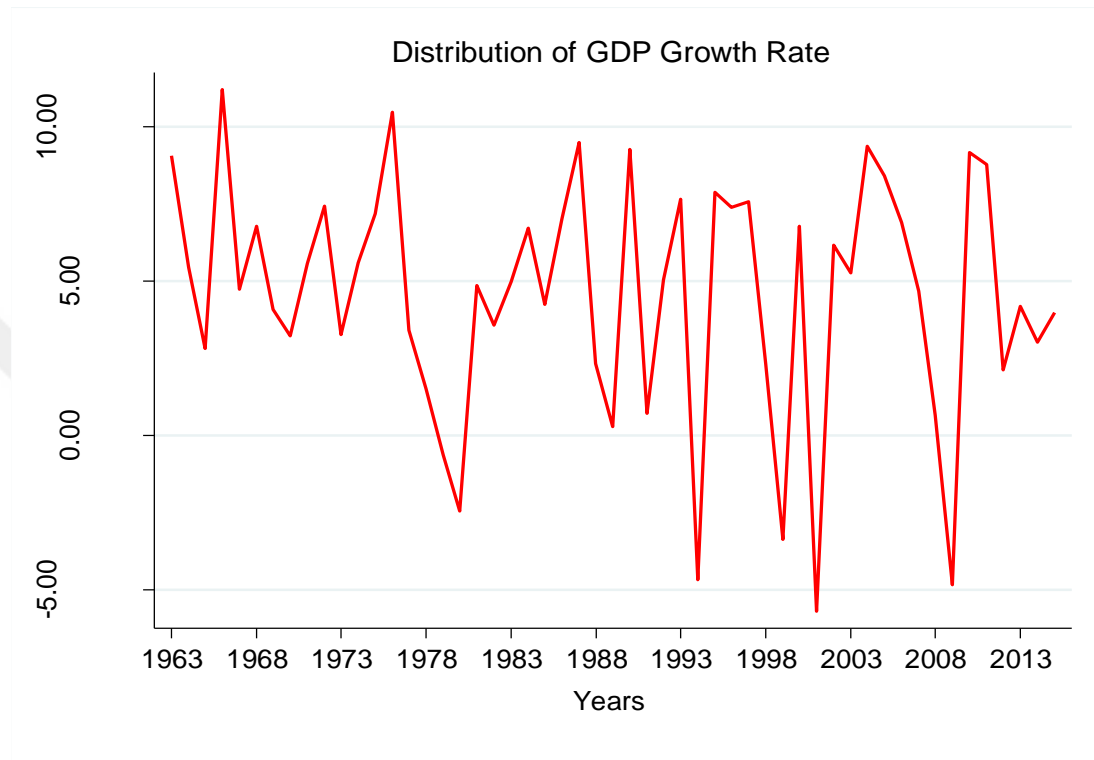
Figure 3 presents the GDP trends from 1963-2015. The GDP trend consistently increased from 1963 to 1969. However, the devaluation of Turkish lira in 1970, political violence between the left and right wing radical parties and the economic downturns such as recession during the year 1971 caused a decline in Turkish GDP (Krueger, 1974). Turkey experienced many military coups and political violence. The first coup occurred in 1960 and the next one in 1971, which lead to the economic downtown and left the country into unstable conditions. The conflict between the left and right wing groups led to another military coup in 1980. These coups resulted instability in the country and the Turkish economy suffered severely. However, after a period of military rule and administration, the stability was reinstated and this resulted into an increase in employment and decrease of inflation. Furthermore, the privatization process contributed to the economic stability of the country (Al Jazeera, 2016).

Observing the trend between 1990 and 2015, there is a great instability in the GDP regardless of the growth in the Turkish tourism industry. The Turkish economy was negatively affected by the two financial crises. One of the most vulnerable local financial crises occurred in 1994, when the Turkish lira was managed by the float system. The second influential local financial crisis took place in 2001, when the banking system almost collapsed. As a result, policymakers lost their credibility and the Turkish exchange rate had been depreciated (Özatay, 2002). In addition to the financial crisis that had negatively affected the Turkish economy, the 1999 massive 7.4 (Kocaeli) and 7.2 (Düzce) magnitude earthquakes left thousands of people dead and resulted into a huge financial losses about 10 billion USD. Thus, these massive earthquakes led the Turkish economy declined by 6 percent (Sucuoğlu, 2000).

The recent 2009 global economic crisis provoked another crisis in the Turkish economy and caused recession during 2008-2009 and consequently the GDP declined (Bedirhanoglu, 2009).

As shown in Figure 3, the Turkish economy had a significant growth in 2013. The year of 2013 recorded the peak value with the highest growth rate in GDP in the history of the Turkish economy. However, this trend started dropping in the following years. This can be attributed to the problems in the Middle East, especially to the situations in Syria and Iraq (Morris, July 2016). Additionally, the breakup of bilateral relationship between Turkish and Russian government had a negative impact on the Turkish economy. The recent shooting down of a Russian warplane by Turkish government has aggravated the bilateral relationship between Turkey and Russia. These developments resulted into a reduction in the number of Russian tourists to Turkey as well (Hacaoglu et al., May 2016).

Figure 4: The Distribution of GDP Growth Rate %



The distribution of GDP growth rate is constantly fluctuating in a wavy form. However, the increase in the GDP growth rate is of great interest through the period. In 1966, the Turkish economy witnessed the highest GDP growth rate of 11.2 percent and the lowest ever GDP growth rate of -5.7 percent was recorded in 2001 (World Bank, November 2016).

The GDP growth rate increased by 1.09% between 1960-2005, 2.27% during the period 1960-1980, but later the trend fell by 0.14% during the 1980 and 2005 period (Altuğ et al., 2008). The growth rate trend drastically declined to -4.8% in 2009 as shown in Figure 4. It is also observable that growth rate trend has not been stable over the study period. However, the current growth rate in 2015, which is at 3.98 %, remains below par relative to the growth rate in 1963 at 9.07%.

Moreover, the Turkish economy has significantly fostered between 1963 and 1967. The GDP growth rate increased by 4%, from 6% in 1963 to 10% in 1967 due to

increased urbanization. Exports also increased incredibly, exceeding the projected target by 10%. Furthermore, Turkey had expanded the trade under bilateral agreement. Additionally, the higher yields of crops and increased prices of some commodities for example copper and tobacco, the production of processed commodities also increased thus all these factors contributed to an increase in the value of Turkish export to \$ 250 million USD more than the anticipated value despite of a big drop in 1965 (Snyder, 1969).

As Ventura (1997) observed, the East Asian growth practices with a quick reallocation of resources from agriculture to non-agricultural activities and a great capital accumulation. On the contrary, the structural transformation of the Turkish economic growth has remains incomplete. This has created a 'puzzle' like situation because Turkey still had 34% of the labour force in agriculture as of 2005 (Ventura, 1997).

Furthermore, Altuğ et al. (2008) state that the years between 1950 and 1979 was the import-substituting industrialization. Unlike countries such as Spain, East Asia and Portugal, Turkey has not experienced continued capital growth, with its growth rate dropping in the 1980's, particularly during the 1990's in which the country faced with massive political and macroeconomic instability.

4.1. PEARSON CORRELATION

Table 2 presents the results for Pearson correlation.

Table 2: Correlations for the NT, GDP \$ (Millions) and GDP Growth Rate

	Number of Tourist Arrivals	GDP \$ (Millions)	GDP Growth (%)
Number of Tourist Arrivals	1.0000		
GDP \$ (Millions)	0.9875* (0.0000)	1.0000	
GDP Growth Rate	-0.0649 (0.6442)	-0.0632 (0.6528)	1.0000

Note: p values are given in parenthesis (). **' significant at 1%, *** significant at 5%,

Generally, the Pearson correlation coefficient statistically determines the strength of positive and negative linear relationship between dependent and independent variables. Additionally, the positive and negative correlations only show the movement and direction of variables.

In Table 2, there is a strong and significant positive correlation between GDP and number of tourist arrivals (0.9875). In addition, the association between the two variables is significant. The null hypothesis (H_0), which states that there is no positive (negative) significant association between GDP and NT, has been rejected. The reason is that the results indicate that there is a positive significant association between GDP and NT. Therefore, we accept the alternative hypothesis (H_1).

Moreover, there is a very weak negative correlation between GDPGR and NT. In Table 2, the results show that there is a very weak negative correlation between these two variables. The correlation between GDPGR and NT is in significant. In this case, we reject the H_1 .

Contrary to our expectation, there is a very weak negative correlation involving GDPGR and GDP. Observing the correlation in Table 2, the Pearson correlation coefficient is -0.0632, which confirms the weak correlation. Furthermore, the p-value for

the relationship indicates that there is no significant negative association between these two variables. There is a strong evidence to accept H_0 and reject the H_1 .

To sum up, the correlation between GDP and NT is in agreement with the proposed hypothesis but the correlations for GDPGR and NT and GDPGR and GDP are contrary to the proposed hypotheses.

4.2. AUGMENTED DICKEY- FULLER AND PHILLIPS - PERRON TESTS

Since the regression includes the non-stationary time series, in this case the data may lead to spurious regression problems. In order to address this issue, the Augmented Dickey-Fuller (ADF) (1973, 1981) and Phillips-Perron (PP) (1988) tests were used for unit root. Table 3 represents the (ADF) and (PP) tests for the existence of unit root and these tests determine the degree of differences and find the stationary series for NT, GDP and GDPGR by using the two general models (intercept and intercept trend).

Table 3: Unit Root Tests

Augmented Dickey-Fuller	Intercept	Intercept and Trend
Number of Tourist Arrivals	3.393*** (1.0000)	0.009 (0.9943)
GDP	0.654 (0.9889)	-1.399 (0.8612)
GDP Growth Rate	-7.396*** (0.0000)	-7.414*** (0.0000)
Phillips-Perron	Intercept	Intercept and Trend
Number of Tourist Arrivals	4.187*** (1.0000)	0.319 (0.9963)
GDP	0.521 (0.9855)	-1.469 (0.8397)
GDP Growth Rate	-7.416*** (0.0000)	-7.439*** (0.0000)

Note: p values are given in parenthesis (). ** significant at 1%, *** significant at 5%, * significant at 10%. The optimal lag selection is based on the Akaike information criterion (AIC) for the ADF and PP tests. The unit root test has been carried out on STATA 12.

Table 4: Augmented Dickey- Fuller and Phillips - Perron Test Results

Null Hypothesis	Decision Intercept	Decision Intercept and Trend
NT has unit root	Reject	Accept
GDP has unit root	Accept	Accept
GDPGR has unit root	Reject	Reject
Phillips-Perron	Decision Intercept	Decision Intercept and Trend
NT has unit root	Reject	Accept
GDP has unit root	Accept	Accept
GDPGR has unit root	Reject	Reject
<i>Note:</i> The null hypothesis accepted and rejected at ** significant at 1%, *** significant at 5%, * significant at 10%.		

Table 3 presents the stationarity tests for each variable. The results of Augmented Dickey-Fuller test indicate that NT is stationary with intercept and remains not stationary with trend. The GDP is not stationary at level $I(0)$, with intercept and trend models. However, the data series of GDPGR are stationary at level $I(0)$.

Considering the results obtained in Table 3, the t-statistics of NT is 3.393 and it is more than the critical value at 5% -2.928. In this case, the null hypothesis that NT has unit root is rejected. On the contrary, the null hypothesis of non-stationarity cannot be rejected for the intercept and trend model. Then, the null hypothesis is accepted.

The null hypothesis of non-stationarity cannot be rejected for the GDP with intercept and trend. The null hypothesis that GDP has unit root cannot be rejected. GDP growth rate is stationary at the 5% significance level with intercept and trend. There is a strong evidence to reject the null hypothesis and accept the alternative hypothesis that GDPGR series does not have unit root.

Analyzing the results of Phillips and Perron test in Table 3, the tests confirm that the results obtained from the ADF are conformable for both models. According to the results of Phillips and Perron tests, NT is stationary with intercept and has no-stationarity characteristic with trend. GDP is not stationary at level $I(0)$, whereas data series of GDPGR is stationary at level $I(0)$.

Moreover, the null hypothesis of NT has unit root is rejected in intercept and cannot be rejected in trend model. For GDP, The null hypothesis is accepted respectively for both intercept and trend.

The GDPGR remains stationary for the two models. The t-statistics obtained after running the test are -7.416 and -7.439, respectively. The outcomes for both models are above 5% critical value. Therefore, we reject the null hypothesis in the favor of the alternative hypothesis.

Table 5: First Differences

Augmented Dickey-Fuller	Intercept	Intercept and Trend
Number of Tourist Arrivals	-6.2361***	-8.3488***
GDP	-6.3924***	-6.6162***
Phillips-Perron	Intercept	Intercept and Trend
Number of Tourist Arrivals	-6.6666***	-8.3440***
GDP	-6.5180***	-6.6715***

Note: ** significant at 1%, *** significant at 5%, * significant at 10% the optimal lag selection is based on the Akaike information criterion (AIC) for the ADF and PP tests.

Since most variables are non-stationary according to ADF and PP tests, then the next step is to test the stationarity of series on differenced variables. The results of stationarity on differenced variables are presented in Table 5.

Table 5 documents that number of tourist arrivals and GDP are stationary after their first differenced $I(1)$. The Augmented Dickey-Fuller and Phillips-Perron tests are applied to the first difference and the null hypothesis of non-stationarity is rejected. Thus, the number of tourist arrivals and GDP are all integrated in order one $I(1)$.

Table 6: Vector Autoregression Lag Order Selection Criteria

Lag order	LR	FPE	AIC	HQIC	SBIC
0		3.9e+36	92.7666	92.8107	92.8835
1	262.29	2.4e+34	87.6772	87.854	88.145*
2	8.4479	2.9e+34	87.8762	88.1855	88.6948
3	10.13	3.5e+34	88.0401	88.4821	89.2096
4	56.341*	1.6e+34*	87.2414*	87.8159*	88.7617
5	8.542	2.0e+34	87.4384	88.1455	89.3096

*Note:** Indicates the smallest value of the lag criterion; Likelihood ratio (LR), final prediction error (FPE), Akaike information criterion (AIC), Hannan-Quinn information criterion (HQIC), Schwarz Bayesian information criterion (SBIC).

Table 6 presents the criteria for lag order selection. The likelihood ratio, final prediction error, Akaike information criteria, Hannan-Quinn information criteria and Schwarz Bayesian information criterion are the guidelines for selecting the lag order to be used in VAR, Granger and Johansen test of cointegration.

The SBIC criterion suggests lag order one for estimating the VAR, Granger and Johansen test of cointegration. However, LR, FPE, AIC and HQIC results suggest lag order four for the most optimum lag to be used for the estimation. Therefore, majority lag order must be granted to run the system equation models. In addition, the results from Vector Error Correction Model (VEC) also proved that four lag must be chosen for further analysis.

4.3. JOHANSEN COINTEGRATION TEST

All the variables are integrated in order I(1), based on the first difference. The next step is to check the possibility of cointegration among the variables. Johansen (1988) suggests two likelihood ratio tests for the cointegration rank: a maximum Eigen value test and a trace statistics test. The results of both tests are presented in Table 7.

Table 7: Johansen's Cointegration Test for NT, GDP and GDP Growth Rate

Hypothesized Number of Cointegrating Equations	Eigen Value	Trace Statistics	Critical Value at 5%	Critical Value at 1%	Maximum Eigen statistics	Critical Value at 5%	Critical Value at 1%
None		35.7942	29.68	35.65	34.6804	20.97	25.52
At most 1*	0.50726	1.1138*	15.41	20.04	1.1138*	14.07	18.63
At most 2	0.02247	0.0000	3.76	6.65	0.0000	3.76	6.65
At most 3	0.00000						

Note: ** significant at 1%, *** significant at 5%, Variables in the cointegrating vectors: NT, GDP and GDPGR. * denotes rejection of the hypothesis at the 0.05 level. To select the order of lags for Johansen cointegration test, we use AIC, HQIC, FPE and LR information criteria.

Both Max-Eigenvalue and Trace test indicates two cointegrating relationships at both 5% and 1% significance levels.

The results of Johansen's cointegration test show interesting outcomes. The analyses indicate two cointegrating equations, which are significant at both 1% and 5% significance levels. As shown in Table 7, the trace value of 35.7942 is higher than the critical value at 5% and 1% significant levels. Thus, the obtained trace statistics offer a strong confidence to reject all null hypotheses that there is no cointegration among the NT, GDP and GDPGR. Therefore, we accept the alternative hypothesis that there is at least one cointegrating vector among NT, GDP and GDPGR variables.

Similarly, the maximum Eigen value statistics of 34.6804 is evidently higher than the critical values at 5% and 1% significant levels. Hence, there is a strong evidence to reject the null hypothesis and accept the alternative hypothesis. Therefore, the existence of cointegration among the three variables indicates that there is long-run relationship among NT, GDP and GDPGR in the model for this study. The findings show that all the variables are moving together in the long-run. In addition, the

integration among the variables support the hypothesis that number of tourists help to increase economic growth.

Moreover, the cointegration among variables also has been tested with the following lags order 1, 2, 3 and 5, respectively. The variables are not cointegrated. The reason is that the null hypothesis cannot be rejected but rather accepted.

4.4. GRANGER CAUSALITY WALD TEST

Table 8: Granger Causality Test for NT, GDP and GDP Growth Rate

Null Hypothesis	Lags	P-value	Decision
GDP does not Granger Cause NT	4	0.072*	Accept
GDPGR does not Granger Cause NT	4	0.044	Reject
GDP and GDPGR do not Granger Cause NT	4	0.113*	Accept
NT does not Granger Cause GDP	4	0.000	Reject
GDPGR does not Granger Cause GDP	4	0.005	Reject
NT and GDPGR do not Granger Cause GDP	4	0.000	Reject
NT does not Granger Cause GDPGR	4	0.007	Reject
GDP does not Granger Cause GDPGR	4	0.007	Reject
NT and GDP do not Granger Cause GDPGR	4	0.007	Reject

Note: To select the order of lags for Granger causality Wald test, we use AIC, HQIC, FPE and LR information criteria. * and * denote statistical significance at the 5% and 1% levels, respectively.

Table 8 displays the results of Granger causality Wald test for the number of tourist arrivals, GDP and GDP growth rate, respectively. In order to understand the causal relationship among variables, Granger causality test was used. According to the results obtained, the significance levels of the causality are less than 5% critical value. The null hypothesis is rejected in many cases. In addition, the results show that causality is unidirectional from number of tourists to GDP and GDPGR. The null hypothesis of GDP does not Granger cause number of tourists is accepted at 5% significance level. Furthermore, the null hypotheses that both GDP and GDPGR do not Granger cause number of tourists are accepted at 5% significance level.

The results confirm the existence of long-run unidirectional causality running from number of tourist arrivals to the GDP. The test results further show that tourism

sector positively affects the Turkish economic growth in the long-run. Furthermore, in line with the expectations, the results support the tourism-led growth hypothesis for Turkey. However, interestingly, the findings do not support the growth-led tourism hypothesis.

When the results are compared with those reported in the existing literature, the results of this study are similar to the findings of Balaguer and Cantavella-Jorda (2002) for Spain, Belloumi (2010) for Tunus, Dritsakis (2004) for Greece, Mishra et al. (2011) for India, Kreishan (2011) for Jordan, Gautam (2011) for Nepal, Akinboade and Braimoh (2010) for South Africa, Gunduz and Hatemi-J (2005) and Ozturk and Acaravci (2009) for Turkey. However, the findings are in contradiction with those of Gautam (2011) for Nepal, Ozturk and Acaravci (2009) for Turkey. For example; while Gautam found a bidirectional causality between tourism growth and economic growth, Ozturk and Acaravci (2009) found no unique long-term and short-term relationship between the real GDP and international tourism. On the contrary, the results of the current study reveal a long-run relationship among the variables. In this respect, the results of Ozturk and Acaravci (2009) do not support the tourism-led growth hypothesis for Turkey.

CONCLUSION

This thesis investigates the role and effect of tourism on the economic growth of Turkey by using Augmented Dickey-Fuller, Phillips-Perron, Johansen cointegration and Granger causality tests. The annual data was used due to unavailability of monthly data on the number of tourist arrivals for Turkey. Similarly, the data on GDP and GDPGR were only available for yearly basis. The sampling period is from 1963 to 2015.

The descriptive statistics document that the number of tourists has increased significantly over 1963-2015. When Turkey started to become liberalized during 1980s, it attracted more attention of people to visit Turkey. During 1963 and 1982, Turkey had state-led tourism policies. This period was followed by liberal policies and private sector intensified its investments between 1983 and 2003. In the recent years, Turkey put more efforts to create its own brand and sustainability. However, it is not always easy to maintain stability in tourism industry. In particular, following the financial crises, the tourist expenditures have become cheaper due to the devaluation of the local currency and this helped to boost the number of tourists in Turkey. When the Turkish currency was depreciated, the tourism income increased in Turkey. On the other hand, security problems and terrorist attacks have negative impact on tourist arrivals.

The findings of the thesis suggest that there is a cointegration among the number of tourist arrivals, GDP and GDP growth rate. This finding implies an existence of long-run equilibrium relationship among number of tourist arrivals, GDP and GDP growth rate. In addition, the findings confirm the tourism-led growth hypothesis that the number of tourist arrivals has positive impact on the economic activities and consequently on the GDP growth of Turkey.

The existence of cointegration among the variables affects the causality relationship among the number of tourist arrivals, GDP and GDP growth rate variables after running Granger causality test. It is noteworthy to say that there is a unidirectional causality from number of tourist arrivals to GDP and to GDP growth rate but not vice versa. This result supports the tourism-led growth hypothesis for the Turkish economy. Therefore, Turkey should better continue to develop policies to encourage investment

for the tourism sector in order to attract high number of tourists and increase tourism revenues for better economic growth given the positive effects of tourism sector on the Turkish economy.

As findings suggest that number of tourist arrivals has positive impact on GDP and GDP growth rate, it can be inferred that tourism generates revenue and it contributes positively to the economy while decreasing poverty in the society. Therefore, it is very crucial for Turkish policymakers to look for the sustainable tourism practices. The findings of this study are good starting points for policymakers to make a master plan for the Turkish economy and tourism sector that includes sustainable strategies for developing infrastructure, easing visa requirements, improving communication and providing more facilities to attract more tourists and increase tourist arrivals.

The results of this thesis have also important implications for creating the policy framework and encouraging private investment for tourism sector. Policy makers should encourage more private investment in order to bring new innovations and ideas to attract more tourists from all over the world.

The thesis encountered some limitations as well. In particular, the unavailability of monthly data for tourist arrivals was the biggest challenge. Furthermore, data on GDP and GDPGR exist only for a yearly basis. Therefore, sampling period was between 1963-2015. It was not possible to extend the sampling period beyond this time interval.

The findings of the current study tried to fill the gap and investigated the relationship between the number of tourist arrivals and GDP using the most recent data for Turkey. Tourism industry is a significant contributor to the economic growth of Turkey. More intensive efforts should take place to draw more tourists to stay longer, increase spending and make repeat visits. Future studies can focus on how to promote tourism industry in Turkey in order to increase the portion of tourism industry in the economic growth of Turkey.

REFERENCES

- Abbas, M., & Ibrahim, M. A. (2011). The Determinants of International Tourism Demand for Egypt: Panel Data Evidence. *European Journal of Economics, Finance and Administrative Sciences* 30 , 1450-2275.
- Agiomirgianakis, G., Serenis, D., & Tsounis, N. (2014). Exchange rate Volatility and Tourist Flows into Turkey. *Journal of Economic Integration* 29(4) , 700-725.
- Akan, Y., Arslan, İ., & Işık, C. (2008). The Impact of Tourism on Economic Growth: The Case of Turkey. *Journal of Tourism* 9(2) , 47–69.
- Akgün, M., Gündoğar, S. S., Levack, J., & Perçinoğlu, G. (2011). The Perception of Turkey in the Middle East 2010. *Türkiye Ekonomik ve Sosyal Etüdler Vakfı* , 1-30.
- Akgüngör, S., Kuştepelı, Y., & Gülcan, Y. (2009). Tourism and Regional Development in the Aegean Region of Turkey. *European Region Studies*, 17(10) , 1509-1523.
- Akinboade, O. A., & Braimoh, L. A. (2010). International Tourism and Economic Development in South Africa: A Granger Causality Test. *International Journal of Tourism Research*, 12(2) , 149–163.
- Al Jazeera*. (2016, July 16). Retrieved November 15, 2016, from Timeline: A History of TurkishCoups:<http://www.aljazeera.com/news/europe/2012/04/20124472814687973.html>
- Altuğ, Sumru; Filiztekin, Alpay; Pamuk, Şevket. (2008). Sources of Long-Term Economic Growth for Turkey, 1880-2005. *ICE-TEA International Economics Conference* (p. 44). Ankara: Regional European Congress.

Amaghionyeodiwe, A. L. (2012). Research note: A Causality Analysis of Tourism as a Long-run Economic Growth Factor in Jamaica. *Tourism Economics*, 18(5) , 1125-1133.

Antonakakis, N., Dragouni, M., & Filis, G. (2015). How Strong is the Linkage between Tourism and Economic Growth in Europe?. *Economic Modelling*, 44 , 142-155.

Ardahaey, F. T. (2011). Economic Impacts of Tourism Industry. *International Journal of Business and Management*, 6(8) , 206.

Arslantürk, Y., & Atan, S. (2012). Dynamic Relation between Economic Growth, Foreign Exchange and Tourism Incomes: An Econometric Perspective on Turkey. *Journal of Business, Economics and Finance*, 1(1) , 30-37.

Bahar, O. (2006). Turizm Sektörünün Türkiye'nin Ekonomik Büyümesi Üzerindeki Etkisi: VAR Analizi Yaklaşımı. *Yönetim ve Ekonomi Celal Bayar Üniversitesi*, 13(2) , 137-150.

Balaguer, J., & Cantavella-Jorda, M. (2002). Tourism as a Long-run Economic Growth Factor: The Spanish Case. *Applied economics*, 34(7) , 877-884.

Balcilar, M., Eyden, R. v., Inglesi-Lotz, R., & Gupta, R. (2014). Time-varying Linkages between Tourism Receipts and Economic Growth in South Africa. *Applied Economics*, 46(36) , 4381-4398.

Barın, Elçin. (2014). *Development of Turkish Tourism Sector*. Ankara: Ministry of Culture and Tourism, General Directorate of Investment and Establishments.

Bayramoğlu, T., & Arı, Y. O. (2015). The Relationship between Tourism and Economic Growth in Greece Economy: A Time Series Analysis. *Computational Methods in Social Sciences*, 3(1) , 89-93.

Bedirhanoglu, B. Nazan. (2009). *Global Economic Crisis and Turkey*. New York: The Turkish Yearbook of International Relations, 40, 123-129.

Belloumi, M. (2010). The Relationship between Tourism Receipts, Real Effective Exchange Rate and Economic Growth in Tunisia. *International journal of tourism research*, 12(5) , 550–560.

Blake, A., & Cortes-Jiménez, I. (2007). *The Drivers of Tourism Demand in the UK*. London: A report prepared by Christel DeHaan Tourism and Travel Research Institute-University of Nottingham for the Department of Culture, Media and Sport. London: UK Parliament.

Brida, J. G., Sanchez Carrera, E. J., & Risso, W. A. (2008). Tourism's Impact on Long-run Mexican Economic Growth. *Economics Bulletin*, 3(21) , 1-8.

Buhalis, D., & Law, R. (2008). Progress in Information Technology and Tourism Management: 20 Years on and 10 Years After the Internet—The state of eTourism research. *Tourism management*, 29(4) , 609-623.

Çelik, A. K., Özcan, S., Topcuoğlu, A., & Yildirim, K. E. (2013). Effects of the Tourism Industry on the Balance of Payments Deficit. *Anatolia*, 24(1) , 86-90.

Çetintaş, H., & Bektaş, Ç. (2008). Türkiye’de Turizm ve Ekonomik Büyüme Arasındaki Kısa ve Uzun Dönemli İlişkiler. *Anatolia: Turizm Araştırmaları Dergisi*, 19(1) , 37-44.

Chaitip, P., Chaiboonsri, C., & Rangaswamy, N. (2008). A Panel Units Roots and Panel Cointegration Test of the Modeling International Tourism Demand in India. *Annals of the University of Petroşani, Economics*, 8(1) , 95-124.

Chen, C. F., & Chiou-Wei, S. Z. (2009). Tourism Expansion, Tourism Uncertainty and Economic Growth: New Evidence from Taiwan and Korea. *Tourism Management*, 30(6) , 812-818.

Cho, V. (2010). A Study of the Non-Economic Determinants in Tourism Demand. *International Journal of Tourism Research*, 12(4) , 307-320.

Chou, M. C. (2013). Does Tourism Development Promote Economic Growth in Transition Countries? A Panel Data Analysis. *Economic Modelling*, 33 , 226-232.

Corrie, K., Stoeckl, N., & Chaiechi, T. (2013). Tourism and Economic Growth in Australia: An Empirical Investigation of Causal Links. *Tourism Economics*, 19(6) , 1317-1344.

Cortés-Jiménez, I. (2008). Which Type of Tourism Matters to the Regional Economic Growth? The Cases of Spain and Italy. *International journal of tourism research*, 10(2) , 127-139.

Cortés-Jiménez, I., Pulina, M., Prunera, C. R., & Artis, M. (2009). Tourism and Exports as a means of Growth. *Research Institute of Applied Economics*, 10 , 1-28.

De Vita, G. (2014). The long-run Impact of Exchange Rate Regimes on International Tourism Flows. *Tourism Management*, 45 , 226-233.

Dritsakis, N. (2004). Tourism as a Long-run Economic Growth Factor: An Empirical Investigation for Greece using Causality Analysis. *Tourism Economics*, 10(3) , 305-316.

Durbarry, R. (2004). Tourism and Economic Growth: The Case of Mauritius. *Tourism Economics*, 10(4) , 389–401.

Dwyer, L., & Forsyth, P. (2006). International Handbook on the Economics of Tourism. *Edward Elgar Cheltenham* , 521.

Elkan, W. (1975). The Relation between Tourism and Employment in Kenya and Tanzania. *The Journal of Development Studies*, 11(2) , 123-130.

Enders, Walter. (2003). *Applied Econometric Time Series*. New York: Second edition John Wiley & Sons, Inc.

Erkan, B., Kara, O., & Harbalioglu, M. (2013). Türkiye'de Turizm Gelirlerinin Belirleyicileri. *Uluslararası Hakemli Sosyal Bilimler E-Dergisi*, Sayı: 39 , 1-20.

Fayissa, B., Nsiah, C., & Tadasse, B. (2007). The Impact of Tourism on Economic Growth and Development in Africa. *Working Papers 200716: Middle Tennessee State University, Department of Economics and Finance* , 807-818.

Fayissa, B., Nsiah, C., & Tadesse, B. (2011). Research note: Tourism and Economic Growth in Latin American Countries – Further Empirical Evidence. *Tourism Economics*, 17(6) , 1365-1373.

Foreign Arrivals to Turkey Plunge 38 Percent in August. (2016, September 29). Retrieved November 14, 2016, from *Hürriyet Daily News*: <http://www.hurriyetdailynews.com/foreign-arrivals-to-turkey-plunge-38-pct-in-august.aspx?pageID=238&nID=104403&NewsCatID=349>.

Forsyth, P., Dwyer, L., Spurr, R., & Pham, T. (2014). The Impacts of Australia's Departure Tax: Tourism Versus the Economy? *Tourism Management*, 40 , 126-136.

Gautam, B. P. (2011). Tourism and Economic Growth in Nepal. *NRB Economic Review*, 23(2) , 18-30.

Gokovali, U. (2010). Contribution of Tourism to Economic Growth in Turkey. *Anatolia*, 21(1) , 139-153.

Gooroochurn, N., & Sinclair, M. T. (2005). Economics of Tourism Taxation: Evidence from Mauritius. *Annals of Tourism Research*, 32(2) , 478-498.

Greene, William H. (2003). *Econometric Analysis*. New York: Pearson Educational International.

Gunduz, L., & Hatemi-J, A. (2005). Is the Tourism-led Growth Hypothesis Valid for Turkey?. *Applied Economics Letters*, 12(8) , 499-504.

Gunn, C. A., & Var, T. (2002). *Tourism Planning Basics, Concepts, Cases*. Routledge, UK: Business and Economics Taylor & Francis Books, Inc.

Hacaoglu, S., Ant, O., & Courcoulas, C. (2016, May 27). *Foreign Tourists Stay Away From Turkey in Record Numbers*. Retrieved January 12 , 2017, from Bloomberg: <https://www.bloomberg.com/news/articles/2016-05-27/turkey-tourism-capsized-by-tensions-as-arrivals-show-record-drop>

Hjalmarsson, E., & Österholm, P. (2009). Testing for cointegration using the Johansen methodology when variables are near-integrated: Size Distortions and Partial Remedies. *Empirical Economics*, 39(1) , 51-76.

Jalil, A., Mahmood, T., & Idrees, M. (2013). Tourism-growth nexus in Pakistan: Evidence from ARDL bounds tests. *Economic Modelling*, 35 , 185-191.

Kadir, N., & Karim, M. Z. (2012). Tourism and Economic Growth in Malaysia: Evidence from Tourist Arrivals from Asean-5 Countries. *Economic Research-Ekonomska Istraživanja*, 25(4) , 1089-1100.

Katircioglu, S. T. (2009). Revisiting the Tourism-led Growth Hypothesis for Turkey Using the Bounds Test and Johansen Approach for Cointegration. *Tourism Management*, 30(1) , 17-20.

Khalil, S., Kakar, M. K., Waliullah, & Malik, A. (2007). Role of Tourism in Economic Growth: Empirical Evidence from Pakistan Economy [with Comments]. *The Pakistan Development Review*, 46(4) , 985-995.

Kim, H. J., Chen, M. H., & Jang, S. ' (2006). Tourism Expansion and Economic Development: The Case of Taiwan. *Tourism management*, 27(5) , 925-933.

Kizilgöl, Ö., & Erbaykal, E. (2008). Türkiye’de Turizm Gelirleri İle Ekonomik Büyüme İlişkisi: Bir Nedensellik Analizi. *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 13(2) , 351-360.

Krause, L. (2005). The Economic Impacts of Fair Trade in Tourism. http://reilumatkailu.meizo.com/sites/reilumatkailu/files/THE_ECONOMIC_IMPACTS.pdf, accessed April, 11, 2012 , 1-59.

Kreag, G. (2001). The Impacts of Tourism. *Minnesota Sea Grant* , www.seagrant.umn.edu/tourism/pdfs/ImpactsTourism.pdf.

Kreishan, F. M. (2011). Time-series Evidence for Tourism-led Growth Hypothesis: A Case Study of Jordan. *International Management Review*, 7(1) , 89-93.

Krueger, A. O. (1974). Foreign Trade Regimes and Economic Development: Turkey. *The National Bureau of Economic Reserch (NBER)* , 271 - 339.

Kum, H., Aslan, A., & Gungor, M. (2015). Tourism and Economic Growth: The Case of Next 11 Countries. *International Journal of Economics and Financial Issues*, 5(4) , 1075-1081.

Lazar, D., & Pop, F. (2012). A Note on Tourism Demand in Romania: Time Series Analysis and Relationship with Economic Growth. *Managerial Challenges of the Contemporary Society*, (4) , 7-11.

Lim, C. (1997). Review of International Tourism Demand Models. *Annals of tourism research*, 24(4) , 835-849.

Lorde, T., Francis, B., & Drakes, L. (2011). Tourism Services Exports and Economic Growth in Barbados. *The International Trade Journal*, 25(2) , 205-232.

Mantalos, P., & Shukur, G. (2010). The Effect of the Spillover on the Granger Causality Test. *Journal of Applied Statistics*, 37(9) , 1473-1486.

Martin, C. A., & Witt, S. F. (1987). Tourism Demand Forecasting Models: Choice of Appropriate Variable to Represent Tourists' Cost of Living. *Tourism Management* 8(3) , 233–246.

Martin, J. L., Morales, N. M., & Scarpa, R. (2004). Tourism and Economic Growth in Latin American Countries: A Panel Data Approach. *Fondazione Eni Enrico Mattei Research Paper Series (FEEM)* , FEEM Working Paper No. 26.

Massidda, C., & Mattana, P. (2013). A SVECM Analysis of the Relationship between International Tourism Arrivals, GDP and Trade in Italy. *Journal of Travel Research*, 52(1) , 93-105.

Mathieson, A., & Wall, G. (1982). *Tourism, Economic, Physical and Social Impacts*. United States, New York: Longman Scientific & Technical.

Meyer, D., & Meyer, N. (2015). The Role and Impact of Tourism on Local Economic Development: A Comparative Study. *African Journal for Physical, Health Education, Recreation and Dance*, 21(1:1) , 197-214.

Mishra, P., Rout, H. B., & Mohapatra, S. S. (2011). Causality between Tourism and Economic Growth: Empirical Evidence from India. *European Journal of Social Sciences*, 18(4) , 518-527.

Morris, Hugh. (2016, July 18). 'Turkey's tourism chapter is ending. This is more damaging than the terror attacks'. Retrieved March 20, 2017, from The Daily Telegraph: <http://www.telegraph.co.uk/travel/destinations/europe/turkey/articles/turkey-tourism-chapter-is-over-as-chaos-reigns-after-coup/>.

Moscardo, G. (2006). Third-age Tourism. In *Tourism Business Frontiers: Consumers, products and industry* , 30-39 Elsevier.

Nelwamondo, T. (2009). Tourism Development through Strategic Planning for Non-Metropolitan Small to Medium Size Accommodation Facilities in Limpopo Province, South Africa. (*Doctoral dissertation, University of Pretoria*) , 538.

Njoya, E. T., & M. K. (2013). The Economic Impact of Inbound Tourism in Kenya: A Computable General Equilibrium Analysis. *Asian Journal of Empirical Research*, 3(7) , 911-932.

Nonthapot, S. (2014). The Relationship between Tourism and Economic Development in the Greater Mekong Sub-region: Panel Cointegration and Granger Causality. *Journal of Advanced Research in Law and Economics*, 5(1 (9)) , 44-51.

Nowak, J.-J., Sahli, M., & Cortés-Jiménez, I. (2007). Tourism, Capital Good Imports and Economic Growth: Theory and Evidence for Spain. *Tourism Economics*, 13(4) , 515-536.

Odhiambo, N. M. (2012). Is Tourism Development an Engine for Economic Growth? The Zambian Experience. *Economics, Management, and Financial Markets*, (4) , 87-100.

OECD. (2009). *The Impact of Culture on the Tourism*. France, Paris: OECD Better Policies for Better Life.

Oh, C.-O. (2005). The Contribution of Tourism Development to Economic Growth in the Korean Economy. *Tourism Management* 26(1) , 39-44.

Önder, A. Ö., Candemir, A., & Kumral, N. (2009). An Empirical Analysis of the Determinants of International Tourism Demand The Case of Izmir. *European Planning Studies*, 17(10) , 1525-1533.

Özatay, F. (2002). Turkey's 2000-2001 Financial Crisis and the Central Bank's Policy in the Aftermath of Crisis. *Bank of Albania in the Second Decade of Transition*. Tirana: Bank of Albania.

Ozturk, I., & Acaravci, A. (2009). On the Causality between Tourism Growth and Economic Growth: Empirical Evidence from Turkey. *Transylvanian Review of Administrative Sciences*, 5(25) , 73-81.

Paci, R., & Marrocu, E. (2013). Tourism and Regional Growth in Europe. *Papers in Regional Science*, 93(S1) , S25-S50.

Pratt, S. (2015). Potential Economic Contribution of Regional Tourism Development in China: A Comparative Analysis. *International Journal of Tourism Research*, 17(3) , 303-312.

Republic Of Turkey Ministry Of Culture and Tourism. (2016, November). Retrieved November 15, 2016, from Ministry of Tourism and Culture: <http://yigm.kulturturizm.gov.tr/TR,9854/sinir-giris-cikis-istatistikleri.html>

Ridderstaat, J., Croes, R., & Nijkamp, P. (2014). Tourism and Long-run Economic Growth in Aruba. *International Journal of Tourism Research*, 16(5) , 472-487.

Rodríguez, F. L., Ibáñez, M. N., & Pérez-Rodríguez, J. V. (2001). Panel Data and Tourism: A Case Study of Tenerife. *Tourism Economics*, 7(1) , 75-88.

Sacks, A. (2012). Travel and Tourism as a Driver of Economic Development in Jamaica. *Tourism Economics* , 1-45.

Saleh, A. S., Assaf, A. G., Ihalanayake, R., & Lung, S. (2015). A Panel Cointegration Analysis of the Impact of Tourism on Economic Growth: Evidence from the Middle East Region. *International Journal of Tourism Research*, 17(3) , 209-220.

Samırkaş, M., & Samırkaş, M. C. (2014). Turizm Sektörünün Ekonomik Büyümeye Etkisi: Türkiye Örneği. *Yüzüncü Yıl Üniversitesi işletme Fakültesi Dergisi*, 15(1) , 63-76.

Savaş, B., Beşkaya, A., & Şamiloğlu, F. (2010). Analysing the Impact of International Tourism on Economic Growth in Turkey. *Uluslararası Yönetim İktisat ve İşletme Dergisi*, 6(12) , 121-136.

Smith, M., MacLeod, N., & Robertson, M. H. (1993). *Key Concepts in Tourist Studies*. New York: Sage Publications Ltd.

Snyder, W. W. (1969). Turkish Economic Development: The First Five Year Plan (1963-1967). *The Journal of Development Studies* , 57-70.

Song, H., & Li, G. (2008). Tourism Demand Modelling and Forecasting a Review of Recent Research. *Tourism management*, 29(2) , 203-220.

Song, H., Li, G., Witt, S. F., & Fei, B. (2010). Tourism Demand Modelling and Forecasting: How should Demand be Measured? *Tourism Economics*, 16(1) , 63-81.

Srinivasan, P., Kumar, S. P., & Ganesh, L. (2012). Tourism and Economic Growth in Sri Lanka: An ARDL Bounds Testing Approach. *Environment and Urbanization Asia*, 3(2) , 397-405.

Sucuoğlu, H. (2000). The 1999 Kocaeli and Düzce-Turkey Earthquakes. *Middle East Technical University, Ankara, Turkey* .

Suresh, K., Gautam, V., & Kumar, M. (2011). Analysing the Relationships Among Tourism, Trade, Economic Growth in Indian Prespective. *Journal of International Business and Economy*, 12(1) , 1-11.

Tang, C. F. (2011). Multivariate Granger Causality between Electricity Consumption, Economic Growth, Financial Development, Population, and Foreign Trade in Portugal. *MPRA Paper* .

Tecle, Y. H., & Schroenn, J. L. (2006). The Contribution of HRD to Tourism-led Development in an African Context: Economics. *South Africa Journal of Economics and Management Sciences*, 9(4) , 444-457.

Terzi, H. (2015). Is the Tourism-Led Growth Hypothesis (TLGH) Valid for Turkey?. *Doğuş Üniversitesi Dergisi*, 16(2) , 165-178.

Thano, R. (2015). The Impact of Tourism on the Balance of Payments. *American Journal of Economics, Finance and Management*, 1(5) , 529-536.

The World Data Bank. (2016, November). Retrieved November 10, 2016, from World Bank:<http://databank.worldbank.org/data/reports.aspx?source=2&series=NY.GDP.MKTP.CN&country=TUR>

Thomas, B., & Townsend, A. (2001). New Trends in the Growth of Tourism Employment in the UK in the 1990s. *Tourism Economics* (7) , 295–310.

Topalli, N. (2015). Turizm Sektörünün Türkiye'nin Ekonomik Büyümesi Üzerindeki Etkisi: 1963-2011. *Uluslararası İktisadi ve İdari İncelemeler Dergisi*, (14) , 339-352.

Trang, N. H. M., & Duc, N. H. C. (2013). The Contribution of Tourism to Economic Growth in Thua Thien - Hue Province, Vietnam. *Middle East Journal of Business*, 8(1) , 70-77.

Turkey hits record-high tourist numbers in 2014. (2015, January 22). Retrieved March 20, 2017, from Hürriyet Daily News:<http://www.hurriyetdailynews.com/turkey-hits-record-high-tourist-numbers-in-2014.aspx?pageID=238&nID=77301&NewsCatID=349>.

Uysal, D., Erdoğan, S., & Mucuk, M. (2004). Türkiye’de Turizm Gelirleri İle Ekonomik Büyüme Arasındaki İlişki (1992-2003). *Sosyal Ekonomik Araştırmalar Dergisi*, 1(8) , 162-170.

Uysal, M., & Crompton, J. L. (1984). Determinants of Demand for International Tourists Flows to Turkey. *Tourism Management*, 5(4) , 288-297.

Vanhove, N. (2005). *The Economics of Tourism Destinations*. UK: Routledge.

Vencovska, J. (2014). The Determinants of International Tourism Demand. *Charles University in Prague* , 1-37.

Ventura, J. (1997). Growth and Interdependence. *The Quarterly Journal of Economics*, 112(1) , 57-84.

Vjekoslav, B., Bejaković, P., & Anton, D. (2012). Tax System as a Factor of Tourism Competitiveness: The Case of Croatia. *Procedia-Social and Behavioral Sciences*, 44 , 250-257.

Wen, J. J., & Tisdell, C. A. (2001). *Tourism and China's Development Policies, Regional Economic Growth and Ecotourism*. Singapore: World Scientific.

Williams, A. M., & Shaw, G. (1988). *Tourism and Economic Development Western European Experiences*. Belhaven Press: London and New York.

Wong, K. N., & Tang, T. C. (2008). Tourism and Openness to Merchandise and Services Trade in Singapore: An Empirical Investigation. (No. 26/08). *Monash University, Department of Economics* , 1441-5429.

Wooldridge, J. M. (2012). *Introductory Econometrics: A Modern Approach* . Michigan State University: Cengage Learning Custom Publishing 5th edition.

World Tourism Organization (UNWTO). (2016). *World Tourism Organization (UNWTO)*. Madrid, Spain: Calle Capitán Haya, 42.

World Tourism Organization (UNWTO). (2014). *World Tourism Organization (UNWTO)*. Madrid, Spain: Calle Capitán Haya, 42.

Yamak, N., Tanriöver, B., & Güneysu, F. (2012). Turizm–Ekonomik Büyüme İlişkisi: Sektör Bazında bir İnceleme. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 26(2) , 205-220.

Yavuz, N. Ç. (2006). Türkiye'de Turizm Gelirlerinin Ekonomik Büyümeye Etkisinin Testi: Yapısal Kırılma ve Nedensellik Analizi. *Doğuş Üniversitesi Dergisi*, 7 (2) , 162-171.

Yıldırım, J., & Öcal, N. (2004). Tourism and Economic Growth in Turkey. *Ekonomik Yaklaşım*, 15(52-53) , 131-141.

Zhang, Z., Goh, C., & Li, H. (2015). Is the Growth of Tourism-specialised Economies Sustainable? A Case Study of Sanya and Zhangjiajie in China. *Journal of China Tourism Research*, 11(1) , 35-52.

Zurub, H. H., Ionescu, A., & Constantin, V. D. (2015). Measuring the Economic Impact of Tourism in European Emerging Markets. *Procedia Economics and Finance*, 32 , 95-102.