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THE EFFECT OF TOURISM REVENUES ON FOREIGN TRADE DEFICIT: THE CASE OF TURKEY

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As previous studies concerning tourism in Turkey suggest, tourism sector is a leading sector in Turkish economy, playing an important role in meeting the foreign trade deficit. The present study's empirical part analyzes the relationship between tourism revenues and foreign trade deficit (goods export-import) by using data related to Turkey's monthly tourism revenues and monthly foreign trade deficits between 2003 and 2013. Empirical analysis made use of Johansen Cointegration Tests as well as error correction model tests and various results were obtained. The study's empirical analysis suggested that there was a significant cointegration relation between tourism revenues and foreign trade deficit.

Keywords: Foreign trade deficit, Foreign trade, Tourism revenues, Turkish economy, Goods export-import, Johansen cointegration tests.

Introduction

Tourism refers to the mobility of people in which they lodge temporarily in different places in the world, satisfy their needs and conduct all kinds of related activities (Önen, 2008). Today, tourism has become a giant industry with the participation of many people; here, interactions are experienced as a whole and economical, political and social relationships are played out; and this giant industry contributes greatly to the integration of the world (Demirkaya, 2011:15). Tourism is the fastest growing and continuously expanding industry in the world economy. The increase in income per capita, rapid development of transportation and communication technology as well as the increase in people's wealth in recent years made an important contribution for the improvement and rapid growth of tourism as an industry (Boz, 2006).

Tourism sector is a dynamic sector with a special importance especially for countries' economies while it involves a continuous interaction with social, cultural, economical and natural environment we find ourselves in. We may even suggest that it plays the role of a fountain head for many countries, especially for them to survive downswings and economical depressions (Önen, 2008). Ever increasing importance has been attached to tourism in the recent years, and many countries have started to see it as one of their main industries in terms of national and regional development. The present study includes a general review of tourism sector and foreign trade deficit in Turkey. And empirical part of the study suggests the presence of a relationship between these two variables.

Tourism Sector in Turkey, and the Role and Importance of Tourism in Turkish Economy

Active foreign tourism has developed especially as of 1980s in Turkey. As one of the sectors which received government promotion in scope of the program which was implemented for the economy in 1985, tourism sector has become one of the primary sources of income for the economy of the country with the increase of investments in this field (Yavuz, 2006).

The economical dimension of tourism sector is especially quite important for developing countries like Turkey which possess a high capacity in this field. This industry has an important effect on national income and it also contributes greatly to our country in terms of creation of employment. Turkey has invested greatly in tourism in order to meet its foreign trade deficit with the revenue of tourism and has initiated a fast progress towards being a tourism center in the world by setting up the infrastructure for this sector (Çoban and Özcan, 2013).

While tourism activities developed rapidly all around the world, tourism sector in Turkey has experienced an especially fast growth both in scope of economic policies and on the micro level. The importance of the sector would be obvious when the following developments are taken into account: the increase of investments in tourism, the increase of the share of tourism within the national income, tourism's becoming an employment field with priority within the service sector, its positive contribution to the balance of payments and its function to attract foreign capital into the country (Dilber, 2007). The main areas of investments made in tourism sector in Turkey are as follows:

- Infrastructure Investments: Roads, ports, waterworks, electricity, natural gas...
- Accommodation Facility Investments: Camp areas, hotels, motels, resorts...
- Other Service Facilities: Entertainment centers, cafés, pools, sports facilities, beaches (Akın, Şimşek and Akın, 2012).

Tourism sector in Turkey shows a great variety due to the natural and cultural features of the country. These are:

1) Health and Thermal Tourism
2) Winter Tourism
3) Tableland Tourism
4) Cave Tourism
5) Hunting Tourism
6) Convention Tourism
7) Mountain-Youth Tourism
8) Yacht Tourism
9) Faith Tourism
10) White Water Rafting Tourism
11) Marine Diving Tourism
12) Air Sports Tourism (http://www.kultur.gov.tr/TR,23265/turizm-cesitleri.html).

The share of tourism revenues within the Gross National Product (GNP) has continuously increased. As a result of the investments, revenues from tourism, and the important effects of tourism sector in creating employment, the share of this sector in GNP has increased every passing year and reached up to 4.2% in 2013. In 2008, the ratio of tourism revenue in GNP was 3.4%; in 2009, this was 4.1%; in 2010 3.4%; in 2011 3.6%; in 2012 3.7%, and finally in 2013, this rate was up to 4.2%. So, tourism sector's share in Turkish economy has been constantly increasing (Dilber, 2007).

There has been an almost constant increase every year in the number of tourists coming to Turkey as well. As a result of the investments made in this sector since 1980s, Turkey has become a known and recognized country in the world. Consequently, number of tourists who prefer Turkey has shown a faster increase compared to other countries and exceeded 39 millions in 2013 with a great success in the field.

Table 1: Tourism Income and Number of Departing Visitors in Turkey.

Years		**Tourism income(000$)**	**Number of departing visitor**
2001	Annual	10 450 728	13 450 127
2002	Annual	12 420 519	15 214 514
2003	Annual	13 854 868	16 302 053
2004	Annual	17 076 609	20 262 640
2005	Annual	20 322 111	24 124 501
2006	Annual	18 593 950	23 148 669
2007	Annual	20 942 501	27 214 988
2008	Annual	25 415 067	30 979 979
2009	Annual	25 064 481	32 006 149
2010	Annual	24 930 996	33 027 943
2011	Annual	28 115 694	36 151 328
2012	Annual	29 007 003	36 463 921
2013	Annual	32 308 991	39 226 226

Source: Turkish Statistical Institute (http://www.turkstat.gov.tr/Start.do)

As seen in Table 1, the number of departing visitor has continuously increased in the last 10 years in Turkey. Major increases in departing visitor numbers have been seen especially after 2000s due to the advantages of close relationships with EU, visa facilities for other countries of the world, and tourism advertisements etc.

Overview of Foreign Trade Deficit of Turkey

Turkey has been experiencing major problems in meeting foreign trade deficits for many years. Foreign resource dependency is especially high in the field of energy. And this, in turn, unbalances Turkey's foreign trade. Turkey has made a leap forward in foreign trade after 2002. The most important importation dependency of Turkey is in the field of industry sector. A major part of the energy which is used as a raw material in the industry is provided through import. And this, in turn, results in current deficit (Eşiyok, 2012). Exportation has shown a great increase in the last ten years; the growth has accelerated; and significant increases in national income and income per capita have been experienced. But this economical development has also increased foreign trade deficit. Along with the increase in exportation, importation has escalated to high levels in the last decades. This situation impairs the structure of the economy (Bahar, 2006).

There are many reasons for the foreign trade deficit of Turkey. An important factor in the creation of foreign trade deficit in our country is the importation of oil and natural gas. And another factor is the provision of intermediate goods for the export products through importation, regardless of our exportation targets. Turkey invests in the industry in order to grow domestically. But this growth attempt results with high deficits in foreign trade due to the scarcity or lack of production of energy as the raw material of the industry and intermediate goods. There isn't enough export revenue to meet these deficits (Sarıçay, 2012).

As the Table 2 shows, there is an increasing deficit in the foreign trade balance of Turkey in the last 20 years approximately. The increase in import is observed to be higher than the increase in export. In order to meet these deficits, Turkey is in search of alternative energy sources in the field of energy and invests greatly in the fields such as tourism which provide higher foreign currency inflow with lower costs compared to other sectors.

Table 2. Balance of Foreign Trade of Turkey.

Years	Export	Import	Balance of Foreign Trade
1994	18 105 872	23 270 019	-5 164 147
1995	21 637 041	35 709 011	-14 071 970
1996	23 224 465	43 626 642	-20 402 178
1997	26 261 072	48 558 721	-22 297 649
1998	26 973 952	45 921 392	-18 947 440
1999	26 587 225	40 671 272	-14 084 047
2000	27 774 906	54 502 821	-26 727 914
2001	31 334 216	41 399 083	-10 064 867
2002	36 059 089	51 553 797	-15 494 708
2003	47 252 836	69 339 692	-22 086 856
2004	63 167 153	97 539 766	-34 372 613
2005	73 476 408	116 774 151	-43 297 743
2006	85 534 676	139 576 174	-54 041 498
2007	107 271 750	170 062 715	-62 790 965
2008	132 027 196	201 963 574	-69 936 378
2009	102 142 613	140 928 421	-38 785 809
2010	113 883 219	185 544 332	-71 661 113
2011	134 906 869	240 841 676	-105 934 807
2012	152 461 737	236 545 141	-84 083 404
2013	151 802 637	251 661 250	-99 858 613

Source: Turkish Statistical Institute (http://www.turkstat.gov.tr/Start.do)

The Effect of Tourism Sector on Foreign Trade Deficit of Turkey

Turkey is a constantly growing country in almost all its sectors. Both export and import are increasing along with this growth. The increase in import is observed to be higher than the increase in export. This condition creates a constantly increasing deficit in the foreign trade balance of Turkey. Therefore, a corresponding amount of foreign currency is needed to make the international payments. But export has not reached to the adequate level as to obtain the necessary foreign currency. Foreign currency inflowing to our country for investments in financial sectors brings with it the risk of leaving the country at once in case of economic fluctuations. Tourism revenues, consequently, have a vital importance in providing recurring revenue within the country and meeting the foreign trade deficits originating from the import surplus (Çetinbaş and Bektaş, 2008).

Tourism in Turkey is a continuously developing sector in general. Revenues thereof have a great importance in terms of meeting the deficits emerging in the balance of payments. As we mentioned above, tourism sector has entered a new era as of 1980s and the way for investments in this field has been paved. So, Turkey has to seize the opportunities of this sector with a great potential in the best way possible in order to finance its deficits in foreign trade (Boz, 2006).

We see tourism revenues and foreign trade deficit figures of 33 years in the below Table 3. Tourism sector's share in meeting the foreign trade deficit in 1980 is observed to be quite low, at the level of 6%. After approximately 5 years, tourism revenues have increased 4 times as much as a result of the investments in this sector. Tourism revenues have increased constantly almost every year. The increase in

foreign trade has also been at high levels. The share of tourism revenues in meeting the foreign trade deficit has increased continuously despite occasional fluctuations.

Table 3. The Effect of Tourism Sector on Foreign Trade Deficit of Turkey.

Years	Foreign Trade Deficit (000 $)	Tourism revenues (000 $)	Share of tourism revenues in meeting FTD (%)
1980	4.999	326,7	6,5
1985	2.975	1.482	49,81
1986	3.648	1.215	33,30
1987	3.968	1.721,1	43,37
1988	2.673	2.355,3	88,11
1989	4.167	2.556,5	61,35
1990	9.555	3.225,0	33,75
1991	7.326	2.654,0	33,52
1992	8.191	3.639,0	45,12
1993	14.160	3.959,0	27,95
1994	4.216	4.321,0	102,49
1995	13.212	4.957,0	37,51
1996	19.424	5.962,1	30,69
1997	21.315	8.088,5	37,94
1998	12.925	7.808,9	60,41
1999	9.443	5.203,0	55,09
2000	22.375	7.636,0	34,12
2001	4.606	10 450 728	218,55
2002	8.590	12 420 519	138,54
2003	16.230	13 854 868	56,6
2004	32.372	17 076 609	49,0
2005	43.297	20 322 111	42,0
2006	54.041	18 593 950	31,1
2007	62.790	20 942 501	29,4
2008	69.800	25 415 067	31,3
2009	38.785	25 064 481	54,7
2010	71.661	24 930 996	29,0
2011	105 934 807	28 115 694	26,5
2012	84 083 404	29 007 003	34,5
2013	99 858 613	32 308 991	32,3

Source: Turkish Statistical Institute (http://www.turkstat.gov.tr/Start.do)

Literature

Below are some reviews of the studies conducted in the literature concerning tourism and foreign trade:

Balaguer and Cantavella-Jorda (2002) have concluded in their study that tourism revenues of Spain played an important role in meeting the foreign trade deficit in the last 30 years.

Çelik Uğuz (2014) has put forth a significant causal relation between tourism revenues and foreign trade deficit in Turkey by using Granger causality test and Johannes cointegration tests.

Özkök et al. (2007) made use of Turkey's tourism data and current deficit data of 10 years and have concluded that tourism revenues had a positive effect on current deficit through Granger causality test.

The conclusion of the study of Gündüz and Hatemi (2005) suggested that tourism revenues of the year 2005 was one of the most important foreign currency sources of Turkey and this source alone provided foreign currency amounting to 42% of the foreign trade deficit.

Kara, Çömlekçi and Kaya (2012) have created 3 models in order to estimate the relation of tourism revenues with macro economic variables. The first model concerned the evaluation of the relation between tourism revenues and economic growth; the second model concerned the evaluation of the relation between tourism revenues and current balance; and the third model concerned the evaluation of the relation between real exchange rates and tourism revenues. Engle-Granger, VAR analysis and Granger causality analysis have been applied on all three models. The results of analyses have suggested a one-way causal relation going from growth to tourism; a two-way causal relation going from tourism revenues to current balance and a one-way causal relation going from exchange rates to tourism revenues. The results of causality analyses have also been verified through impulse-response and variance analyses.

Çilyavuz (2006) has studied the effect of the increase in tourism revenues of Turkey on its economic growth in the period between 1992:Q1 and 2004:Q4. The unit root test of Zivot and Andrews (1992) has been used to determine the presence of structural break, along with conventional unit root test (Augmented Dickey Fuller). The results of Zivot and Andrews' test have suggested that gross domestic product and tourism variables were trend stationary, by contrast with ADF. According to standard Granger causality test results and Toda-Yamamoto (1995) approach, there was no causal relation between tourism revenues and economic growth.

Bahar (2006) has analyzed the time period belonging to the variables created by tourism revenues and GNP for the period of 1963–2004 through VAR model. The empirical results have suggested that tourism had a positive effect on economic growth and according to the cointegration test, there was a reciprocal relation between the two variables in the long run.

Empirical Analysis

Methodology

Cointegration between series, and their relations in long and short run have been analyzed through Engle and Granger (1987) method. In this method, it has been stated that a linear integration of the series belonging to two or more economic variables could be stationary even though these series themselves aren't (Engle and Granger, 1987). This linear integration, which could also be called as a long run relation, is termed as cointegration equation. Any balance relation between non-stationary variables enables their stochastic trends to be related and thus makes their cointegration necessary and enables their movement to be dependent on each other. In the long term, however, the dynamic behavior of the variables which move together may show some deviation from the balance relation. This is a key feature of cointegrated variables and plays a determinant role in the short run dynamics (Johnston and Dinardo, 1997). The dynamic model emerging through this process is termed as error correction model. In error correction model, a negative and statistically significant coefficient for the error correction term is desired. This shows that the short term deviations between series that move together in the long run are eliminated and series converge once more in the long run balance value. A positive coefficient, on the other hand, indicates that an impact effecting one of the series didn't diminish and series diverge from their balance value (Enders, 1995: 356; Vogelvang, 2005: 265).

An analysis to be conducted with cointegration and error correction models consists of the following stages (Enders, 1995: 365-366): First of all, the integration (stationarity) degree of the variables is determined. The most important limitation of this method is the necessity for all included series not to be stationary in their level values but to become stationary when their first difference is taken (Engle-Granger, 1987). Then, regression in the long run is estimated with the level values of series. Long run model is as below:

$$Y = \alpha_0 + \alpha_1 X_1 + \varepsilon_1$$

Then, an error terms series belonging to the regression in the long run is obtained and ADF (Augmented Dickey Fuller) stationarity test is counducted on this series.ADF test statistics obtained from stationarity test and CRDW (Cointegration Regression Durbin-Watson) test values obtained from long run relation are compared with Engle and Granger (1987) table values. When the resulting test values are higher than table values, a cointegration relation between series is considered to be present. Finally, error correction model is created with the series that have become stationary. Error correction model is as follows:

$$\Delta Y_1 = \alpha_0 + \alpha_1 EC_{t-1} + \alpha_2 \Delta X_1 + \varepsilon_1$$

This model also gives the relation in the short run.
Here, EC_{t-1} is the error correction term.

Data Set

The present study includes tourism revenues (TR) and foreign trade deficit (NX) data in the model. Data have been gathered from Turkish Statistical Institute (http://www.turkstat.gov.tr/Start.do) on a monthly basis.

Model

When data have been converted into an econometric model:
$NX_t = \alpha_0 + \alpha_1 TR_t + \mu t$ has been obtained.

Stationarity Tests

In order for a time series to be stationary, its mean and variance shouldn't change in time and the covariance between two periods should only be dependent on the distance between the two periods, and not on the period in which this covariance is calculated (Gujarati, 1999: 713). Due to the problem of spurious regression in the model estimated with non-stationary time series (Granger and Newbold, 1974), obtained results don't reflect the real relation.

In such a case, t and F tests lose their validity. The stationarity of series in the present study has been analyzed through ADF and PP tests. Dickey-Fuller (DF) test may be conducted based on three equations:

Test for a unit root $\Delta Y_t = \gamma Y_{t-1} + \mu_t$
Test for a unit root with drift $\Delta Y_t = \alpha_0 + \gamma Y_{t-1} + \mu_t$
Test for a unit root with drift and trend $\Delta Y_t = \alpha_0 + \alpha_1 t + \gamma Y_{t-1} + \mu_t$

DF statistics obtained as a result of these tests are compared with Mac Kinnon (1996) critical values and null hypothesis ($H_0: \gamma = 0$) is tested against alternative hypothesis ($H_1: \gamma \neq 0$). Null hypothesis indicates the non-stationary state of the series, in other words, that it has a unit root while alternative hypothesis indicates that the series is stationary. When the error term (μ_t) is internally correlated, the equation (5) is reformulated as follows:

$$\Delta Y_t = \alpha_0 + \alpha_1 t + \gamma Y_{t-1} + \beta_1 \sum_{i=1}^{m} \Delta Y_{t-1} + \mu_t$$

Here m indicates the length of lag, while Δ indicates difference operator. The length of lag depends on obtaining a model without internal correlation. This test is known as Augmented Dickey Fuller: ADF test. The results obtained through ADF test is shown in Table 4.

Table 4. ADF Test Results.

	ADF	*%1*	*%5*	*%10*
LNTR	*-2.350632*	*-3.482035*	*-2.884109*	*-2.578884*
LNNX	*-3.117122*	*-4.030157*	*-3.444756*	*-3.147221*
ΔLNTR	*-11.13746*	*-3.482035*	*-2.884109*	*-2.578884*
ΔLNNX	*-16.77305*	*-3.481217*	*-2.883753*	*-2.578694*

Note: Akaike information criterion (AIC) has been used as test statistics. For the significance level, Mac Kinnon's (1996) critical values have been used.

When the results in Table 4 are analyzed, tourism revenues and foreign trade balance have been seen to be stationary in their first difference. ADF test assumes that error terms are statistically independent and have constant variance. In this case, cointegration analysis could be conducted with Johansen System Cointegration Test method.

Long Run Analysis

Long run analysis is conducted with level values of series. Below is the long run model adapted to the present study:

$$NX_t = \alpha_0 + \alpha_1 TR$$

Long run models of the data included in the analysis have been estimated with EKK and the results are shown in Table 5.

Table 5. Long Run Analysis.

Vector Error Correction Estimates
Date: 11/18/14 Time: 13:33
Sample (adjusted): 2003M06 2013M12
Included observations: 127 after adjustments
Standard errors in ( ) & t-statistics in [ ]

Cointegrating Eq:	CointEq1
LNNXSA(-1)	1.000000
LNTR_SA(-1)	-1.527685 (0.31719) [-4.81628]
C	2.648355

$$LNNXSA(-1) = 2.648355 + 1.527685 LNTRSA + u_t$$

When the results shown in the table are analyzed, short run deviations between tourism revenues and foreign trade deficit are observed to be eliminated and tourism revenues are predicted to converge with foreign trade deficit in the long run in the balance value.

Cointegration Relation

Error term series have been obtained through long run analyses of the countries and these series have been subjected to ADF and CRDW tests. If the calculated test statistics are greater than the critical values in the table as absolute value, this would indicate the presence of a cointegration relation between series.

Table 6. Cointegration Relation.

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.087414	16.49543	15.49471	0.0352
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.087414	11.61709	14.26460	0.0272

The presence of a cointegration relation between series has been established after the analysis of Table 6. Based on this, series are determined to move together in the long run and analyses to be conducted with these series are considered not to include spurious regression. After observing a long term relation between series, the presence of a short term relation may be analyzed. The presence of short term causal relation between variables may be analyzed by using "Vector Error Correction" model (Tarı, Yıldırım, 2009:103).

Conclusion

Tourism sector which has become significantly important for the economies in the world in recent years is known as the top foreign currency source after exportation within Turkish economy. Tourism revenues have a major importance in meeting foreign trade deficits of our country. The present study conducted an empirical analysis on the relation between Turkey's tourism revenues and its foreign trade deficit, using monthly data of the period of 2003-2013. The results of the empirical study suggested that there was a significant cointegration relation between tourism revenues and foreign trade deficits. Thus, the importance of tourism revenues in meeting foreign trade deficits of Turkey has been observed. That is why the importance attached to tourism sector in our country should be increased in order to reduce our foreign trade deficits more effectively. Turkey has a great potential in the field of tourism. But some investments need to be made in this field in order to obtain much more tourism revenue in the future. Increased tourism revenues will not only balance the payments but also will help in reducing the current deficit which has been a major problem of our country for decades, and by doing so, it will also provide a competitive advantage to our country in the international arena. As previous empirical studies show, as the second major foreign currency source, tourism contributes greatly to our country's economy. More importance should be attached to winter tourism since tourism sector in Turkey has more of a seasonal character. We could make better use of our existing potential if tourism revenues spread through the year more evenly since this would in turn create increase in revenue.

References

1. AKIN,A., ŞİMŞEK, M.Y. and AKIN. A. (2012), *The Importance and Place of Tourism in Economy,* Akademik Araştırmalar ve Çalışmalar Dergisi, 4(7).
2. BAHAR, O. (2006), *The Effect of Tourism Sector on the Economic Growth of Turkey: VAR Analysis Approach* Celal Bayar Üniversitesi İ.İ.B.F,Yönetim ve Ekonomi Dergisi,13(2).
3. BALAGUER, J., & CANTAVELLA-JORDA, M. (2002), *Tourism As A Long Run Economic Growth Factor: The Spanish Case,* Applied Economic, 34(7), 877-884.
4. BOZ, C. (2006), *Employment and Working Conditions of Tourism Industry in World,* Marmara Üniversitesi Sosyal Bilimler Enstitüsü Yüksek Lisans Tezi.

5. ÇELİK UĞUZ, B. (2014), *Current Account Balance in Turkey and Importance of Tourism,* Karamanoğlu Mehmetbey Üniversitesi, Sosyal ve Ekonomik Araştırmalar Dergisi, 16(26), 18-22.
6. ÇETİNTAŞ, H., BEKTAŞ, Ç. (2008), *The Long and Short Term Relationships between Tourism and Economic Growth in Turkey ,* Turizm Araştırma Dergisi, 19(1).
7. ÇİL YAVUZ, N. (2006) , *Test for The Effect of Tourism Receipts on Economic Growth in Turkey: Structural Break and Causality Analysis,* Doğuş Üniversitesi Dergisi,7(2) 2006,162-171.
8. ÇOBAN, O., ÖZCAN, C.C. (2013), *The Relationship Between Economic Growth and Tourism Income of Turkey: A Casuality Analysis (1963-2010),* EskiŞehir Osman Gazi Üniversitesi İ.İ.B.F Dergisi.
9. DEMİRKAYA, H. (2011), *Competition in Tourism Sector and Administration of Human Resources: Do Orientation and Organizational Socialization Be Useful in A Short Period?*
   http://akademikpersonel.kocaeli.edu.tr/harundemirkaya/bildiri/harundemirkaya01.08.2011_14.11.04bildiri.pdf
10. DICKEY, D. and FULLER, W. A. (1979), *"Distribution of the Estimates For Autoregressive Time Series With a Unit Root*", Journal of the American Statistical Association, no:74, pp. 427-431.
11. DİLBER, İ. (2007), *The Evaluatin of Tourism Sector's Effect on Turkish Economy Trough Input-Output Table,* University of Celal Bayar
12. ENGLE, Robert and GRANGER, C. W. J. (1987), *"Co-Integration and Error Correction: Represention, estimation and Testing"*, Econometrica, no: 55(2), pp. 251-276.
13. EŞİYOK, A.B. (2012), *Current Account Deficit Problem in Turkish Economy and its Reasons*, Finans Politik&Ekonomik Yorumlar 2012, 49(569).
14. GRANGER, C. W. J. and NEWBOLD, P. (1974), *"Spurious Regressions in Econometrics." Journal of Econometrics,* no:2(2), pp. 111-120.
15. GUJARATI, D. N. (1999), *Basic Econometrics*, Mc Graw Hill, Literatür Yayıncılık, 3 rd edition, İstanbul.
16. GÜNDÜZ, L.,& HATEMİ-J, A. (2005), *Is The Tourism-Led Growth Hypothesis Valid For Turkey,* Applied Economics Letters, 12(8), 499-504.
17. KARA, O., ÇÖMLEKÇİ, İ., & KAYA, V. (2012), *The Relation of Tourism Revenues and Various Macroeconomic Indicators: The Case of Turkey (1992-2011),* Ekonomik Ve Sosyal Araştırmalar Dergisi, 8(1), 75-100.
18. Repuplic of Turkey Ministry of Culture and Tourism, http://www.kultur.gov.tr/TR,23265/turizm-cesitleri.html
19. ÖNEN, M. O. (2008), *Tourism in The World and Turkey,* Türkiye Kalkınma Bankası A.Ş.
    http://www.kalkinma.com.tr/data/file/raporlar/esa/ga/2008-ga/dunyada_ve_turkiyede_turizm.pdf
20. ÖZKÖK, F., TUFAN, E. & HAMARAT, B. (2007), *Effect Of Tourism Receipts in Turkey*, The İnternational Trade Journal, 22(1), 39-62.
21. SARIÇAY, N.S. (2012), *Foreign Trade Deficit and Tourism*, İzmir Ticaret Odası,AR-GE Bülten 2012 Aralık-Sektörel.
22. TARI, Recep. (2008), *Econometric*, Avcı Ofset, 5. Baskı, İstanbul.
23. Turkish Statistical Institute, Foreign Trade Deficit and Tourism Statistical, Turkish Statistical Institute http://www.turkstat.gov.tr/Start.do
24. Development Bank of Turkey, Reports, http://www.kalkinma.com.tr/
25. VOGELVANG, Ben. (2005), *Econometrics : Theory and Applications With Eviews*, Pearson Addison Wesley.