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The Validity of the Tourism-induced EKC Hypothesis: The Case of Turkey

Turizm Kaynaklı EKC Hipotezinin Geçerliliği: Türkiye Örneği

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ABSTRACT

Keywords:

Tourism,
EKC hypothesis,
ARDL bounds
testing to
cointegration
Turkey,

This paper examines the existence of relationship between international tourist arrivals (TA), and Carbon dioxide emissions per capita (CO₂) in Turkey over the period 1960-2015. We also use energy use per capita (EU) and GDP per capita (GDP) as a control variables. The autoregressive distributed lag (ARDL) bounds test approach was applied to analyze the long-run relationship among the variables. The results confirmed the validity of the tourism-induced Environmental Kuznets Curve (EKC) hypothesis. An increased tourism demand increases environmental pollution up to a point where the sector attains a certain development level, after which emissions begin to fall. On the other hand, the results indicate that the EKC hypothesis between income and CO₂ emissions has not been confirmed. Energy usage has positive and significant effects on carbon dioxide emissions as expected. For sustainable tourism and to the reduction of emissions in Turkey, environmental protection and the use of renewable energy should be supported by policy makers.

ÖZET

Anahtar Kelimeler:

Turizm
ÇKE Hipotezi,
ARDL Sınır Testi,
Türkiye

Bu makale, 1960-2015 döneminde Türkiye'de uluslararası turist varışları (TA) ile kişi başına düşen Karbondioksit emisyonları (CO₂) arasındaki ilişkinin varlığını incelemektedir. Ayrıca, kontrol değişkenleri olarak kişi başına düşen enerji kullanımını (AB) ve kişi başına düşen GSYİH'yı (GSYİH) kullanıyoruz. Değişkenler arasındaki uzun dönemli ilişkiyi analiz etmek için otoregresif dağıtılmış gecikme (ARDL) sınırları testi yaklaşımı uygulandı. Sonuçlar, turizm kaynaklı Çevresel Kuznets Eğrisi (EKC) hipotezinin geçerliliğini doğruladı. Artan turizm talebi, çevre kirliliğini sektörün belirli bir gelişme düzeyine ulaştığı noktaya kadar artırmakta ve ardından emisyonlar düşmeye başlamaktadır. Öte yandan, sonuçlar, gelir ve CO₂ emisyonları arasındaki EKC hipotezinin doğrulanmadığını göstermektedir. Enerji kullanımının karbondioksit emisyonları üzerinde beklendiği gibi olumlu ve önemli etkileri bulunmaktadır. Türkiye'de sürdürülebilir turizm ve emisyonların azaltılması için çevrenin korunması ve yenilenebilir enerji kullanımı politika yapıcılar tarafından desteklenmelidir.

1. INTRODUCTION

In recent years, we have started to hear more and more about the terms “climate change” and “global warming” which refers to the rise in the average global temperatures by increased concentrations of greenhouse gases (GHG) in the atmosphere. They are among the most important problems because of the increase in the concentration of GHG, which has significant negative effects on humans and the environment worldwide. There are a lot of factors such as economic growth, gross capital formation, trade openness, urbanization, agriculture, energy use, tourism, etc. which lead to an increase in GHG emissions. The countries that heavily dependent on their natural resources and environment are affected much more negatively by global warming. It is necessary to take quick measures in all areas which include agriculture, forestry, energy, infrastructure, tourism, energy-intensive manufacturing industries, etc. Otherwise, global warming will increase hunger and water crises, health problems, low employment and growth, loss of biodiversity, spreads of pests and pathogens, etc. Tourism is a sector that provides significant income, employment, and foreign exchange for many countries. But on the other hand, it also causes pollution because of waste, energy use, and transportation. As the tourism industry is a rapidly growing industry and has a high level of relationship with other industries, it causes large amounts of carbon dioxide (CO₂) emissions and negative influence on climate change and the ecological environment.

The relationship between the international tourism sector, energy consumption and, greenhouse gases attracts the attention of many researchers in recent years (Chishti et al., 2020; Koçak et al., 2020; Balsalobre-Lorente et al., 2020; Ben Jebli, et al., 2019; Tang et al., 2018; Azam et al., 2018; Doğan and Aslan, 2017; Shakouri et al., 2017; Ben Jebli et al., 2015; Katircioğlu, 2014a; Katircioğlu, 2014b; Lee and Brahmasrene, 2013; Tiwari et al., 2013). Depending on the purpose, energy usage in the tourism sector can be divided into two groups as transportation and destination (accommodation, food, and beverage, touristic activities, etc.). For this reason, the relationship and estimates of energy consumption and GHG emissions in the tourism sector are very important in terms of policy recommendations (Wu and Shi, 2011). Becken and Simmons (2002) report that tourist attractions and activities increase energy demand which causes environmental pollutions.

There has been an increasing trend in global GHG emissions since the beginning of the 21st century. CO₂ emissions are the most important greenhouse gases generated from human activities and the main responsible for global warming (EPA, 2019). One of the GHG is CO₂ which is the largest contributor to climate change and comes heavily from the combustion of fossil fuels. GHG emissions have been increasing since the first industrial revolution which led to significant increases in energy use and output. A serious decline in carbon emissions is required to keep the world at a livable temperature. In 2019, China (30.34%), the United States (13.43%), India (6.83%), the EU27+UK (8.69%), Russia (4.71%), and Japan (3.03%)- the world's largest CO₂ emitters- together accounted for 67% of total global fossil CO₂. China and the US, are responsible for more than 40% of the global emissions. Turkey is responsible for 1.09% of the global emissions in 2019 (Crippa et al., 2020; WEFORUM, 2019). The statistics show that the level of carbon dioxide emissions increased during the last years in Turkey and rose from 205.7 million metric tons in 2000 to 383.3 million metric tons in 2019 (Statista, 2020). Turkey's high economic and population growth strongly increases the energy demand. In 2018, Turkey's primary energy supply consists of petroleum 29.2%, natural gas 28.6%, hard coal 17.4% lignite 10.5% and geothermal 5.8% which the share of fossil resources is 86.3%. They have negative effects on air and environmental pollution (MMO, 2020).

The energy sources for doing work are called nonrenewable and renewable. In many countries, most energy sources are nonrenewable such as fossil fuels (coal, natural gas and petroleum), hydrocarbon gas liquids and nuclear energy. Increasing consumption of fossil fuels in the world depending on industrialization, increase of the world population and the quality of life cause environmental pollution, which causes an increase in health risks and global climate change problem (Panwar et al., 2011). Energy requirements are largely met by transforming fossil fuels into various forms of energy but different GHG emissions are released into the atmosphere during this transformation process (Kelly & Williams, 2007).

International tourism is one of the largest and fastest-growing sectors in the world and now represents 10% of global employment and 10% of global GDP (World Tourism Organization (UNWTO) and International Transport Forum (ITF), 2019). The technical report in 2008, prepared by an expert team of the United Nations, is the first detailed initiative to determine the global share of tourism-induced CO₂ emissions (UNWTO et al., 2008). According to the report, tourism makes a significant contribution to climate change and emissions are expected to increase significantly in the future. It was estimated that between 3.7% and 5.4% of global CO₂ emissions in 2005 originated from the tourism-related sectors (transport, accommodations and activities) and the transportation sector causes around 75% of the CO₂ emissions generated by tourism (UNWTO et al., 2008). Transport-related

CO₂ Emissions of the Tourism Sector Report has been prepared to update the estimate of the largest component of tourism GHG emissions which are transport-related emissions by UNWTO and the International Transport Forum (ITF) in 2019. The estimation results for 2030 show that the total expected transport-related tourism emissions (excluding cruise) is 1.998 million tonnes of CO₂ which would represent 23% of the total expected transport emissions (UNWTO and ITF, December 2019). Gössling (2013) analyzed national emissions from tourism and indicate that emissions from tourism are equivalent to 5-15% of official national emissions and growing rapidly.

The COVID-19 pandemic shows that the world tourism industry is experiencing a negative trend due to the decline in tourism demand. For this reason, countries that are dependent on tourism in terms of foreign exchange earnings and employment have been adversely affected by the COVID-19 pandemic period. Under the international tourism 2020 scenarios (UNWTO, 7 May 2020), international tourism is expected to decrease by 60-80%. This means 850 million to 1.2 billion international tourists and 100 to 120 million tourism jobs lost. Therefore, it is estimated that tourism revenues will decrease by US\$910 billion to US\$1.2 trillion in 2020. Therefore, COVID-19 is not only causing a health-related crisis, but also an economic crisis. However, the decreasing demand in the tourism sector causes a decrease in CO₂ emissions in the world. Global greenhouse gas emissions fell suddenly roughly 10 to 30 per cent on average during April 2020 because of COVID-19-related restrictions (Forster et al., 2020). Liu et al. (2020) stated that in the first half of 2020, there was a sudden drop in global CO₂ emissions of 8.8% compared to the same period of 2019. According to Gössling et al. (2020), the main causes of increased CO₂ emissions and pandemic threats in the 21st century are similar. Factors such as increasing population, urbanization, industrialization, increase in production, transportation and increased mobility in the world are effective in the spread of pathogens.

Especially after the industrial revolutions, the dependence of production on energy and the predominance of fossil fuels in energy production cause environmental pollution. For this reason, there are studies and models investigating the relationship between production and environmental pollution. The environmental Kuznets curve (EKC) hypothesis (Grossman and Krueger, 1991; Grossman and Krueger, 1995) claims that while an increase in income at low-income levels has harmful effects on the environment after the income level reaches a certain level, the negative effect of the increase in income on the environment begins to decrease. This is because as the country develops and new technologies are found, environmentally friendly production begins. The hypothesis is called the inverted U-shaped hypothesis. Similar to the EKC hypothesis, it is expected an inverted U-shaped type relationship between tourism arrival and environmental degradation is called the tourism-induced EKC hypothesis. Because tourism demand is highly sensitive to environmental quality. An increased tourism demand increases environmental pollution up to a point where the sector attains a certain development level, after which emissions begin to fall.

Within the framework of the variables mentioned above, we analyze the long-term relationship among CO₂ emissions, the number of tourists' arrivals, economic growth, and energy usage for Turkey. We also investigate the question which whether or not does the tourism sector increase environmental pollution? The rest of the paper is organized as follows. The second section is a literature review explaining the relationship between tourism and environmental pollution with other explanatory variables. The third section reports the empirical results and their discussions. A summary of the analysis results and some suggestions for further research are presented in section four.

2. LITERATUR REVIEW

Academic studies on global warming and environmental pollution have been increasing in recent years. The impact of the tourism sector on global warming is one of the research topics (Chishti et al., 2020; Koçak et al., 2020; Balsalobre-Lorente et al., 2020; Ben Jebli, et al., 2019; Tang et al., 2018; Azam et al., 2018; Fang et al. 2018; Doğan and Aslan, 2017; Shakouri et al., 2017; Pandey, 2017; Hoogendoorn and Fitchett, 2016; Ben Jebli et al., 2015; Katircioğlu, 2014a and 2014b; Lee and Brahmaşreene, 2013; Tiwari et al 2013; Scott and Lemieux, 2010; Dwyer et al., 2009). Using different methods, they analyzed whether the tourism sector has an impact on GHG emissions. Lenzen et al. (2018) find that tourism's global carbon footprint has increased from 3.9 to 4.5 GtCO₂e between 2009 and 2013 using 160 countries data. They also state that the rapidly growing tourism sector will constitute an increasing part of the world GHG emissions due to its high carbon intensity in the future. Since the tourism industry is the most diverse business sector, It is not easy to determine tourism-related energy consumption. The results of the research on tourism and CO₂ emissions are inconclusive. Some studies have concluded that transport is the main driver of GHG emissions (Unger et al., 2016; Nepal, 2008; UNWTO, UNEP,

WMO, 2008; Sarrano-Bernardo et al., 2012). Liu et al. (2011) suggest that the input-output analysis could be used in computing CO₂ emission from energy consumption for different sectors related to the tourism industry. They also emphasize the important contribution of the transportation sector to carbon emissions. Solarin (2013), Katircioğlu et al. (2014), Hoyer (2000) and Saenz-de-Miera & Rossello (2014) found a positive relationship between tourist arrivals and emissions. On the other hand, some studies (Scott 2011; Weaver 2011; Lee and Brahma-srene 2013) indicate that sustainable tourism could cause a decrease in CO₂ emissions. That is why the relationship between tourism development and CO₂ emissions is not always positive. Balsalobre-Lorente et al. (2020), Shakouri et al. (2017), Sherafatian-Jahromi et al. (2017) and Paramati et al. (2016) found the tourism-induces EKC hypothesis between tourism and environmental pollutions. The tourism sector is a highly climate-sensitive economical sector and has affected by weather and climate variations. Thus, there may be a bilateral relationship between the tourism sector and climate changes. This result is very important and will cause problems like unemployment, inequality, poverty and migration in the future for the global economy. Some studies analyzing the relationship between CO₂ emissions and tourism are briefly summarized in Table 1 below.

Table 1. Summary of the Studies that Examined the Tourism-CO₂ Relationship

Author	Time period	Country	Methodology	Results
Chishti et al. (2020)	1980-2018	5 South Asian countries	Non-linear autoregressive distributed lag (NARDL) technique	Increased tourism demand has negative signs on pollution in Bangladesh, India and Pakistan, while adverse results are found in Nepal and Sri Lanka.
Khan et al. (2020)	1975-2017	Developing economies and Pakistan	ARDL and Granger causality tests	It is found a positive relationship between tourism and CO ₂ emissions both in the long- and short run.
Balsalobre-Lorente et al. (2020)	1994-2014	OECD countries	Fully modified ordinary least squares (FMOLS) model	An inverted U-shaped relationship exists between tourism and CO ₂ emissions.
Koçak et al. (2020)	1995-2014	Top 10 visited economies	Fully modified (CUP-FM) and the continuously updated bias-corrected (CUP-BC) estimators	Tourism arrivals contribute to carbon increase, while tourism receipts contribute to carbon reduction in the long-run.
Ben Jebli, et al. (2019)	1995-2010	22 Central and South American countries	FMOLS and dynamic ordinary least squares (DOLS) panel estimate methods	The number of tourist arrivals has a negative influence on emissions, while trade and economic growth have a positive effect on CO ₂ emissions.
Nepal et al. (2019)	1975-2014	Nepal	ARDL and Granger causality tests	Tourism has been found to have a positive relationship with carbon emissions.

Azam et al. (2018)	1990-2014	Malaysia, Thailand and Singapore	The fully modified ordinary least squared regression (FMOLS) Panel vector autoregression,	It is found a positive relationship between tourism and environmental pollution in Malaysia but there is an inverse relationship between the variables in Thailand and Singapore.
Shakouri et al. (2017)	1995-2013	12 selected Asia-Pasific countries	panel Granger causality test, Panel GMM-model	The tourism-induced EKC hypothesis is valid in Asia-Pacific countries.
Işik et al. (2017)	1970-2014	Greece	ARDL	Tourism expenditure has positive effects on Greece's CO_2 emissions.
Doğan and Aslan (2017)	1995-2011	The European Union and candidate countries	Heterogenous panel estimation techniques	Energy consumption increases emission level, while real income and tourism developments decrease CO_2 emissions.
Sherafatian-Jahromi et al. (2017)	1970-2010	Five Southeast Asian countries	Panel econometric methods	A nonlinear relationship exists between tourism and environmental pollutions confirming the tourism-induced EKC hypothesis.
Paramati et al. (2016)	1995-2012	26 developed and 18 developing economies.	Robust panel econometric techniques	An inverted U relationship exists between CO_2 emissions and tourism growth.
Ben Jebli et al. (2015)	1990-2010	Tunisia	ARDL and Granger causality test	International tourism affects positively CO_2 emissions and also CO_2 emissions decrease international tourism.
Sajjad et al. (2014)	1975-2012	South Asia, Middle East and North Africa (MENA), sub-Saharan Arica, and East Asia and Pacific regions	ARDL, Granger causality tests	There is a negative relationship between CO_2 emissions and international tourism expenditures in South Asia, the MENA region, and East Asia and Pasific but a positive relationship with sub-Saharan Africa.
Solarin (2014)	1972-2010	Malaysia	ARDL, Granger causality analysis and DOLS model	There is a positive correlation between carbon dioxide emissions and tourism arrivals.
Katircioğlu (2014)	1960-2010	Turkey	ARDL	Tourist arrivals increase CO_2 emissions, but the coefficient of tourist arrival is positively inelastic.
Durbarry and	1978-2011	Mauritius	ARDL	Although the increase in tourist demand has a positive effect on CO_2 emissions, the contribution of tourism to emissions is

Seetanah (2015)				relatively small compared to other explanatory variables.
Katircioğlu et al. (2014)	1970-2009	Cyprus	ARDL, Granger causality tests.	Increased tourism demand leads to CO_2 emissions.
Katircioğlu (2014b)	1971-2010	Singapore	DOLS model	It is found a U-shaped relationship between tourism and pollution confirming the tourism-induced EKC hypothesis.
Lee and Brahmašreṇe (2013)	1988-2009	European Union countries	Panel cointegration and fixed effects models	Economic growth has a positive effect while tourism and FDI have a negative influence on CO_2 emissions.
Tiwari et al. (2013)	1995-2005	25 OECD countries	Panel-data Vector Autoregression (PVAR)	Tourism has insignificant impact on CO_2 .

3. GENERATION OF THE DATA

3.1. Theoretical Model

As we mentioned above, there are different determinants of environmental pollution such as GDP, energy and electricity consumptions, tourism, trade openness, urbanization, financial development, agriculture. This study mainly examines the possible influence of tourism arrival (TA) on air pollution in Turkey which is the main tourism destination of the world. The dependent variable is CO_2 emission which accounts for over 50% of green gas emissions and is an indicator of air pollution. We used GDP and square of GDP as an independent variable to test the existence of the Environmental Kuznets Curve (EKC) hypothesis, which investigates the relationship between real income growth and environmental pollution. WE used also TA and square of TA to test tourism induced EKC hypothesis, which determines the relationship between tourist arrivals and environmental pollution. The other independent variable is energy consumption (EU). Tourism is an energy-dependent sector and is an important determinant of income in Turkey. Therefore, we included GDP, tourism arrivals and energy use as independent variables in the model to determine the effects of these variables on CO_2 emissions. The model is specified as follows:

$$CO_{2t} = f(GDP_t, GDP_t^2, TA_t, TA_t^2, EU_t)$$

We used the model which is the log-linear form and written as follows:

$$\ln CO_{2t} = \beta_0 + \beta_1 \ln GDP_t + \beta_2 \ln GDP_t^2 + \beta_3 \ln TA_t + \beta_4 \ln TA_t^2 + \beta_5 \ln EU_t + \mu_t$$

All data used in this study are annual and collected from the World Bank's (WB) World Development Indicators (WDI) database between 1960 and 2015, according to data availability. Table 2 indicates the variables as well as their definitions and sources of data. All variables are in natural logarithmic forms.

Table 2. Variables and definitions (1960-2015)

Symbol	Definition and units of measurement
CO_2	Carbon dioxide emissions measured as metric tons per capita
GDP	GDP per capita (constant 2010 US\$)
GDP^2	The squared term of GDP
TA	International tourism, number of arrivals

TA ²	The squared term of TA
EU	Energy use (kg of oil equivalent per capita)

The hypotheses of this paper are as follows.

Hypothesis 1: According to the Environmental Kuznets Curve (EKC) approach, it is expected that the β_1 parameter will be positive and the β_2 parameter will be negative ($\beta_1 > 0$, $\beta_2 < 0$).

Hypothesis 2: According to an inverted U-shaped relationship between TA and CO₂, the β_3 parameter is expected to be positive and the β_4 parameter to be negative ($\beta_3 > 0$, $\beta_4 < 0$).

Hypothesis 3: Increasing energy usage increases CO₂ emissions ($\beta_5 > 0$).

4. RESULTS

4.1. Unit Root Test

In the first stage of the analysis, Phillips-Perron (PP) and DF-GLS unit root tests were applied to investigate the stationarity level of the variables. The DF-GLS test stands out due to its strong performance in small samples (Elliot et al., 1996). The results of the unit root test which are applied intercept and intercept and trend form of PP are presented in Table 3. GDP, GDP2, TA and TA2 variables have unit roots in their level forms at a 5 per cent significance level and they are integrated after the first differences. On the other hand, we can reject the null of unit root for CO₂ variable which is found to be stationary in level.

Table 3. Phillips-Perron unit root analysis

Variable	Level		1st Difference	
	Constant	Constant&Linear Trend	Constant	Constant&Linear Trend
lnCO ₂	-3.6605* (0.0075)	-3.0081 (0.1394)	-	-
lnEU	-1.1352 (0.6956)	-2.5675 (0.2962)	-7.2167* (0.0000)	-7.2961* (0.0000)
lnGDP	0.3067 (0.9766)	-2.3060 (0.4236)	-7.2704* (0.0000)	-7.2178* (0.0000)
LnGDP ²	0.5898 (0.9882)	-1.9903 (0.5935)	-7.2003* (0.0000)	-7.1862* (0.0000)
lnTA	-1.6231 (0.4642)	-2.5727 (0.2939)	-7.8343* (0.0000)	-7.9982* (0.0000)
lnTA ²	-0.9539 (0.7633)	-2.5185 (0.3184)	-8.1397* (0.0000)	-8.1342 (0.0000)

*Significant at 5% level of significance. Null hypothesis: the series has a unit root

DF-GLS unit root test results are given in Table 4. GDP, GDP2 and TA2 variables are significant at the levels. Thus, the null hypothesis which variables contain a unit root are rejected. CO₂, TA, and EU variables are stationary at the first difference.

Table 4. DF-GLS Unit Root Test

Variable	Level		1st Difference	
	Constant ^a	Constant&Linear Trend ^b	Constant ^a	Constant&Linear Trend ^b
lnCO ₂	1.5204	-1.4276	-7.9811*	-7.1508*
lnEU	1.8655	-2.5671	-6.2942*	-6.7649*
lnGDP	2.7460*	-2.3278	-	-
LnGDP ²	2.8847*	-2.0867	-	-

lnTA	1.7933	-1.9571	-7.7341*	-8.0457*
lnTA ²	2.0625*	-2.2465	-	-
*Significant at 5% level of significance. Null hypothesis: the series has a unit root a-Test critical value: 5% level -1.9468 b- Test critical value: 5% level: -3.1740				

4.2. ARDL Bound Test

Because we have a group of time-series, some I(0), others I(1), we employed the ARDL bound test to ensure the validity of long-run relationships among variables (Pesaran and Shin, 1998; Pesaran et al., 2001). In a classical cointegration test (Engle and Granger (1987), Phillips and Hansed (1990) and Johansen (1988)) all variables must be equally stationary. However, the ARDL model can be used if the variables are stationary to different degrees (except I (2)). ARDL model contains the lagged value(s) of the dependent variable, current and lagged values of regressors as explanatory variables. ARDL limit test developed by Pesaran et al. (2001) reveals long-term relationships between variables regardless of whether the series is I (0) or I (1). If variables are cointegrated after the boundary test, both short-run (ARDL) and long-run (VECM) models are used. The basic ARDL (p, q1, q2, q3, q4, q5) model used in the study around this advantage provided by the method can be expressed as follows:

$$\ln CO2_t = \alpha + \sum_{i=1}^p \beta_{1i} (\ln CO2)_{t-i} + \sum_{i=0}^{q1} \beta_{2i} (\ln GDP)_{t-i} + \sum_{i=0}^{q2} \beta_{3i} (\ln GDP^2)_{t-i} + \sum_{i=0}^{q3} \beta_{4i} (\ln TA)_{t-i} + \sum_{i=0}^{q4} \beta_{5i} (\ln TA^2)_{t-i} + \sum_{i=0}^{q5} \beta_{6i} (\ln EU)_{t-i} + \varepsilon_t$$

ARDL boundary test model adapted to work for cointegration;

$$\Delta \ln CO2_t = \alpha + \delta_1 \ln CO2_{t-1} + \delta_2 \ln GDP_{t-1} + \delta_3 \ln GDP^2_{t-1} + \delta_4 \ln TA_{t-1} + \delta_5 \ln TA^2_{t-1} + \delta_6 \ln EU_{t-1} + \sum_{i=1}^p \beta_{1i} \Delta (\ln CO2)_{t-i} + \sum_{i=0}^{q1} \beta_{2i} \Delta (\ln GDP)_{t-i} + \sum_{i=0}^{q2} \beta_{3i} \Delta (\ln GDP^2)_{t-i} + \sum_{i=0}^{q3} \beta_{4i} \Delta (\ln TA)_{t-i} + \sum_{i=0}^{q4} \beta_{5i} \Delta (\ln TA^2)_{t-i} + \sum_{i=0}^{q5} \beta_{6i} \Delta (\ln EU)_{t-i} + \varepsilon_t$$

ARDL bound test hypotheses are established as follows:

$$H0: \delta_1 = \delta_2 = \delta_3 = \delta_4 = \delta_5 = \delta_6 = 0 \quad (\text{no cointegration})$$

$$H1: \delta_1 \neq \delta_2 \neq \delta_3 \neq \delta_4 \neq \delta_5 \neq \delta_6 \neq 0 \quad (\text{cointegration})$$

Where Δ represents the first difference operator; α is the constant term; and $\delta_1, \dots, \delta_6$ are the long-run coefficients; β_1, \dots, β_6 represent the short-run coefficients; p, q_1, \dots, q_5 are optimal lag orders; ε_t represents the white noise error term.

The null hypothesis indicating that there is no cointegration among the variables is rejected when the calculated F statistic value is higher than the upper critical limit value (Pesaran et al. 2001). This result shows that there is a long-run relationship between variables. In case H0 is rejected, the next step is to estimate the Error Correction Model (ECM). At this stage, error testing is defined as follows to obtain short and long term dynamics:

$$\Delta \ln CO2_t = \alpha + \sum_{i=1}^p \beta_{1i} \Delta(\ln CO2)_{t-i} + \sum_{i=1}^{q1} \beta_{2i} \Delta(\ln GDP)_{t-i} + \sum_{i=1}^{q2} \beta_{3i} \Delta \ln GP^2_{t-i} + \sum_{i=1}^{q3} \beta_{4i} \Delta(\ln TA)_{t-i} + \sum_{i=1}^{q4} \beta_{5i} \Delta \ln TA^2_{t-i} + \sum_{i=1}^{q5} \beta_{6i} \Delta(\ln EU)_{t-i} + \lambda ECT_{t-1} + \varepsilon_t$$

The coefficient (λ) of the Error Correction Term (ECT_{t-1}) is expected to be negative and statistically significant. It shows how long it will take for short-term shocks caused by independent variables to disappear and approach the long-term equilibrium value. β_1, \dots, β_6 are the short-run dynamic coefficients of the model.

The long-run, as well as short-run results of income, income squared, tourist arrival, energy consumption on CO2, are reported in Table 5. Calculated F statistics (4.90608) is greater than the upper critical value (3.79) at a 5% level of significance. That is why the null hypothesis of no cointegration among variables are rejected. This confirms the presence of a long-run relationship among the variables.

Table 5. Estimated Coefficients from ARDL Model

Panel A: F Bound Test				
Model: ARDL(4, 1, 0, 0, 0)	F-Bounds Test Statistics	Significance	I(0)	I(1)
Case 3: Unrestricted Constant and No Trend	4.90608	%10 %5 %1	2.26 2.62 3.41	3.35 3.79 4.68
Panel B: Long-run elasticities Dependent Variable: lnCO₂				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNGDP	-0.011859	3.182400	-0.003726	0.9970
LNGDP2	0.014814	0.170866	0.086697	0.9313
LNTA	0.708563	0.279976	2.530798	0.0153
LNTA2	-0.023050	0.009038	-2.550330	0.0146
LNEU	0.935011	0.224230	4.169877	0.0002
EC = LNCO2 - (-0.0119*LNGDP + 0.0148*LNGDP2 + 0.7086*LNTA -0.0231*LNTA2 + 0.9350*LNEU)				
Panel C: Short-run elasticities and Error Correction Term				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.249239	1.088574	-5.740758	0.0000
D(LNCO2(-1))	-0.097670	0.056718	-1.722035	0.0926
D(LNCO2(-2))	0.034747	0.053888	0.644807	0.5226
D(LNCO2(-3))	-0.111973	0.052741	-2.123051	0.0398
D(LNEU)	1.037990	0.072903	14.23805	0.0000
CointEq(-1)*	-0.523960	0.091173	-5.746856	0.0000
Panel D: Diagnostic Test Statistics				
Adjusted R-squared: 0.8463 Durbin-Watson stat: 1.9332				
			Test istatistiği	Prob.
Heteroskedasticity Test: Breusch-Pagan-Godfrey			7.9096	0.6377

Breusch-Godfrey Serial Correlation LM Test	0.2901	0.8649
Jarque-Bera Normality Test	0.8774	0.6448
Ramsey RESET Test	0.2879	0.5945

Table 5 reports the results for short and long-run estimates for the model with CO2 emissions as the dependent variable and economic growth, international tourist arrival and energy usage as independent variables. The coefficients $\beta_1 < 0$ and $\beta_2 > 0$ are not statistically significant and do not confirm the existence of the EKC hypothesis between economic growth and environmental degradation. This finding is not similar to the majority of studies, such as in Zaman et al. (2016), Solarin (2014), Al-Mulali et al. (2015), Shahbaz et al. (2015), Lee and Brahma-srene (2013), Katircioğlu (2014) and Ben Jebli et al. (2019) and consistent with Tiwari et al. (2013). Some studies find an N-shape relationship between the variables (Destek et al. 2020).

On the other hand, the results ($\beta_3 > 0$ and $\beta_4 < 0$) support the hypothesis that increasing tourism demand increases environmental pollution up to a point where the sector attains a certain development level, after which emissions begin to fall. These results confirm an inverted U-shaped relationship between international tourist arrival and CO2 emissions. The result is consistent with Katircioğlu (2014b), Sherafatian-Jahromi et al. (2017), Balsalobre-Lorente et al. (2002), Shakouri et al. (2017) and Paramati et al. (2016).

The analysis results also show that energy usage (EU) has a positive and significant impact on CO2 in the long run. A 1% increase in EU increases CO2 emissions by 0.935%. An increase in income, tourism, transportation and communication increases the demand for energy sources which production depends on mainly fossil fuels such as gas, oil and coal which produce CO2 and other GHG emissions. The result consistent with Khan et al. (2020), Say&Yücel (2006), Katircioğlu et al. (2014) and Doğan&Aslan (2017), Al-Mulali&Sheau-Ting (2014).

The analysis results also show that there is a short-run relationship between CO2 and energy usage as shown in Panel C of Table 5. This result confirms that the most important source of CO2 emissions is energy usage in the long run and short run. As can be seen in Table 5, the coefficient of the error correction term ECT_{t-1} (- 0.523) is negative and statistically significant confirming a long-run relationship between CO2 emissions, tourist arrival, income growth and energy usage. In addition, the error correction term states that 52,3% of an imbalance that occurs in the short run will disappear in the first year. In other words, an imbalance in the short term will come back to long-term equilibrium approximately in 2 years ($1/0,523$).

The results of diagnostic tests for the error-correction model, i.e. serial correlation test, functional form specification, normality test and heteroscedasticity test are reported in Panel D of Table 5. The test results accept null hypotheses stating that there is no econometric problem in the model. The estimated model also passes the diagnostic tests of normality and functional form. The diagnostic test results suggest that the estimated model is stable over the sample period. The high R-squared is indicative of the good explanatory power of the model. To check the stability of the short-and long-run estimates, CUSUM and CUSUM of squares are also employed. Figure 1 and Figure 2 show CUSUM and CUSUM of squares where CO2 is the dependent variable. The plots of both statistics are well within the critical 5% bounds that confirm the stability of coefficients in the error-correction model.

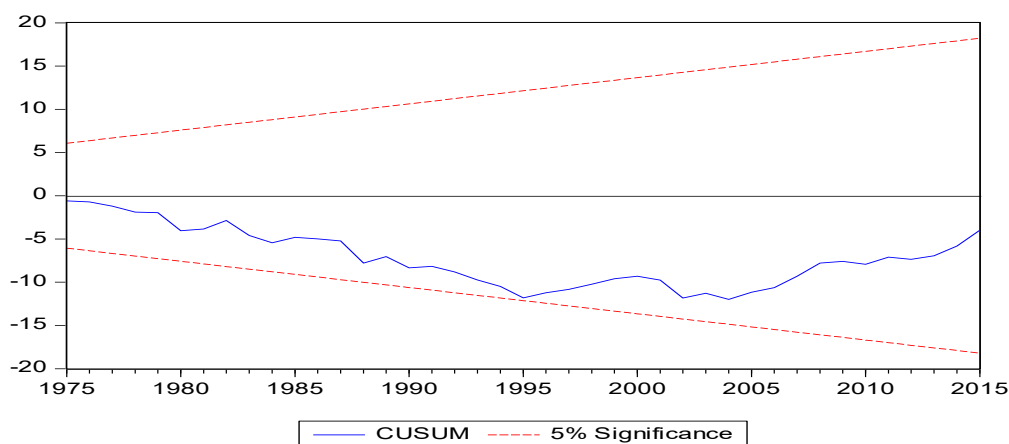


Figure 1. Plot of Cumulative Sum of Recursive Residuals

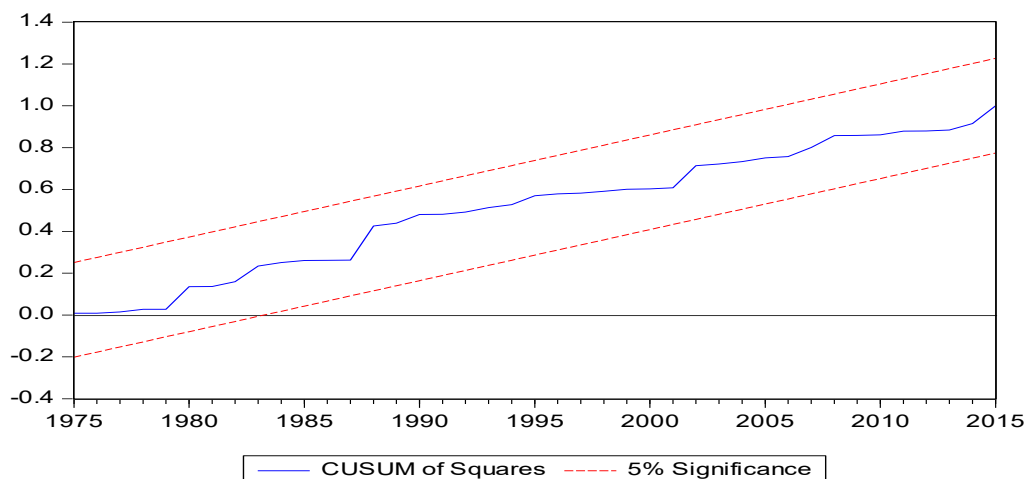


Figure 2. Plot of Cumulative Sum of Squares of Recursive Residuals.

5. DISCUSSION AND CONCLUSION

This paper examined the presence of a long-run relationship among CO2 emissions, tourist arrival, economic growth, and energy consumption in Turkey. ARDL Bound test results show the existence of a long-run relationship among the variables. These results confirm an inverted U-shaped relationship between international tourist arrival and CO2 emissions. The results are in line with Katircioğlu (2014b), Sherafatian-Jahromi et al. (2017), Balsalobre-Lorente et al. (2002), Shakouri et al. (2017) and Paramati et al. (2016). The tourism sector is an energy-intensive sector in many areas such as accommodation, heating/cooling, transportation and more tourist arrivals creates more demand for energy which translates to significant emissions. This finding supports the idea which more tourist arrivals create more demand for energy which translates to significant emissions. Then the analysis results of this paper confirm that energy use leads to increase CO2 emissions. Our analysis results do not provide any evidence for the EKC hypothesis between economic growth and CO2 emissions in Turkey during the period under study. This result is not similar to findings of Zaman et al. (2016), Solarin (2014), Al-Mulali et al. (2015), Shahbaz et al. (2015), Lee and Brahmasurene (2013), Katircioğlu (2014) and Ben Jebli et al. (2019) and consistent with Tiwari et al. (2013).

The tourism sector is an important sector for Turkey in terms of both income and employment. In 2019, the share of the tourism and travel sector in Turkey's GDP is 11.3%. On the other hand, the number of people working in the tourism sector in Turkey is about 2.6438 million people, and this figure is equivalent to 9.4% of total employment (TÜİK, 2020). The sector was following a positive trend before the pandemic and had 51,9 mn visitors and US\$34,5 bn total receipts in 2019 (EY Turkey, 2020). Tourism is an energy-dependent sector that causes a significant positive impact on environmental pollution in Turkey. For sustainable development, all sectors including tourism must improve infrastructure construction, enhance environmental awareness, investment in renewable energy services and focus on eco-friendly policies to reduce carbon emissions and environmental pollutions. This is also important to protect the environment and increase Turkey's competitiveness in the world. Energy, which causes industrial revolutions and a more comfortable life, has turned into a problem that threatens human life, such as climate changes and environmental pollution. It has vital importance for the whole world to support investments in clean energy and low-carbon technologies for sustainable development and sustainable tourism. These investments could avert the worst warming and reduce the negative effects of climate changes on tourism in the world. The subject of the next study will be to investigate the effects of the decrease in tourism demand due to global climate changes on employment, income and migration in tourism-dependent countries. Especially, international migration which is a big problem for Turkey and unemployment are going to be the most important problems in the future in the world. Therefore, to prevent environmental pollution and prevent global warming, increasing international joint efforts, especially in the field of energy, should be considered as an emergency for sustainable development and a peaceful world.

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The Impact of Economic Factors on Voter Preferences: The Case of Turkey

Ekonomik Faktörlerin Seçmen Tercihlerine Etkisi: Türkiye Örneği

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ABSTRACT

The current study investigates the relationship between the votes of political parties and per capita gross domestic product, unemployment and inflation rates in Turkey for the years between 1990 and 2019. ADF, PP and Carrion-i-Silvestre unit root tests with structural breaks were used to determine the degree of stationarity of the variables. Maki cointegration test and ARDL bounds test were used under multiple structural breaks to determine the cointegration and short and long-term relationships between the variables. Finally, Toda Yamamoto Granger causality test was used to determine the causality relationship between the variables. The results revealed that per capita gross domestic product positively affects the vote rates of political parties in the short-term, and inflation affects the vote rates of political parties negatively in the long-term. As a result of the Granger causality test, a one-way causality relationship was determined between inflation and the vote rates of political parties. According to this result, it is seen that the increase in the inflation rate causes a decrease in the vote rates of political parties in Turkey. Another important finding is that the unemployment rate has no effect on the vote rates of political parties.

Anahtar Kelimeler:

Ekonomik Oylama,

Seçmen Davranışı,

*Türkiye Seçmen
Davranışı,*

*ADRL ve Toda
Yamamoto
Nedensellik Testi*

ÖZET

Bu makale 1990-2019 yılları için Türkiye’de siyasi partilerin oyları ile kişi başı gayri safi yurt içi hasıla, işsizlik ve enflasyon oranları arasındaki ilişkiyi incelemektedir. Değişkenlerin durağanlık derecelerini belirlemek için ADF, PP ve Carrion-i-Silvestre kırılmalı birim kök testleri kullanılmıştır. Eşbütünleşme ve değişkenler arasındaki kısa ve uzun dönem ilişkilerini belirlemek için çoklu yapısal kırılmalar altında maki eşbütünleşme testi ve ARDL sınır testinden yararlanılmıştır. Son olarak değişkenler arasındaki nedensellik ilişkisinin tespiti için Toda Yamamoto Granger nedensellik testi kullanılmıştır. Sonuçlar, kısa dönemde kişi başı gayri safi yurt içi hasılanın siyasi partilerin oy oranını olumlu etkilediğini ve uzun dönemde ise enflasyonun siyasi partilerin oy oranını olumsuz etkilediğini ortaya koymaktadır. Granger nedensellik testi sonucunda, enflasyon ile siyasi partilerin oy oranı arasında tek yönlü bir nedensellik ilişkisi tespit edilmiştir. Bu sonuca göre, enflasyon oranındaki artış Türkiye’de siyasi partilerin oy oranlarının azalmasına neden olduğu görülmektedir. Elde edilen diğer bir önemli bulgu ise, işsizlik oranının siyasi partilerin oy oranları üzerinde bir etkisinin olmadığıdır.

1. INTRODUCTION

Today, the importance of voter preferences in the determination of political power within the scope of political marketing is increasing with each day. The determinants of factors that affect voter preferences seem to be a controversial issue in the literature. Voter preferences may differ from country to country depending on the level of development and growth of countries. However, as seen in many studies today, the most influential factors on voter preferences are related to economic changes (Erdoğan, 2013: 27-28). The relationship between economic factors and voter preferences is referred to as economic voting theory in the literature (Erikson, 1989; Nannestad and Paldam, 1994).

According to economic voting theory, voters reward the political parties having good economic performance with their votes at the ballot box, while they punish poor economic performance (Lewis-Beck, 1990). While making this decision, voters first support the political party that benefits them the most, with a sense of self-interest (Kramer, 1971: 132; Çinko, 2006: 102-104). Secondly, voters vote for political parties that they believe can overcome economic problems by evaluating the past and future performances of political parties (Downs, 1957; Lau and Redlawsk, 2006: 182; Fair, 1978: 158-160; Erdoğan, 2004: 105).

The use of economic variables that can be easily accessed and evaluated by voters in studies conducted in this context increases the reliability of the results to be obtained. Among these variables, the variables of per capita gross domestic product, unemployment and inflation rates are widely utilized in the literature (Powell and Whitten, 1993: 396; Lewis-Beck and Paldam, 2000: 119-120). Although there are many studies in the literature under the name of economic voting theory, economic shocks, political shocks and structural breaks in the model, which are thought to have an effect on per capita gross domestic product, unemployment rate, inflation rate and the vote rates of political parties, have been ignored.

In this connection, in the current study, the effects of the per capita gross domestic product, unemployment and inflation rate variables on the rate of votes received by political parties were investigated. In this context, there is no study to the best of our knowledge that uses the variables used in the current study together, taking into account the structural breaks in Turkey, and investigates the causality relationships between the variables together with short and long-term coefficient estimation. In this respect, the current study is important in terms of determining the economic variables that are effective in the preferences of voters in Turkey in a concrete way and thus helping fill that gap in the literature.

2. LITERATURE REVIEW

In studies investigating the effects of economic voting theory or of economic variables on the vote rates of political parties, it is seen that the effects of economic variables on the vote rates of political parties have been generally examined. This situation may differ depending on the development level of countries and voters, and consistent results cannot be obtained. For this reason, studies conducted under the theory of economic voting and studies examining the effects of economic variables on the vote rates of political parties will be included here.

The studies by Downs (1957), Mueller (1970), Goodhart and Bhansali (1970), Kramer (1971), Stigler (1973), Arcelus and Meltzer (1975), Hibbs (1977), and Fair (1978) are the seminal studies conducted within the framework of the Theory of Economic Voting. In the research methods used in these studies, it is generally argued that economic factors affect voter preferences. In this connection, voters affected by economic factors punish or reward the political party in the current government with their votes in the elections. When the relevant studies in the literature are examined, it is seen that the findings obtained yield different results from each other. This may be due to different observation intervals, different data sets, different econometric methods and countries with different levels of development.

According to the study of Downs (1957), voters take into account their personal economic interests while exhibiting their voting behaviours. In addition, another important finding in this study is that voters hold the party in government directly responsible for the changes in their personal economic situations. The study by Kramer (1971) supports this finding of Downs. In Kramer's study, it was determined that the economic changes in the USA have a significant effect on voter preferences. Another remarkable finding in this study is that voters are extremely sensitive to the changes in their personal income levels and they exhibit voting behaviour accordingly.

Bulutay and Yıldırım (1969) examined the relationship between voters' voting behaviour and personal income increases. According to the results obtained in the study, it was concluded that the economic performance of the governments is the most important factor affecting the voting behaviour of voters. Arcelus and Meltzer (1975)

examined the effects of the unemployment and inflation variables on the congress elections held in the USA between 1896 and 1970 with regression analysis. As a result of the analysis, it was determined that only inflation among the macroeconomic variables affects voter preferences and participation rates. Lewis-Beck (1986) investigated the effects of economic conditions on votes in the study they conducted in England, France, Germany and Italy. As a result of the analyses made, it was determined that the economic conditions are important on the voting behaviour of voters in these countries. In addition, another important finding in the study is that European voters make their voting decisions by conducting past and future-oriented analyses.

In their study, Kim and Fording (2001) investigated the reason for the changes in voter ideology by using economic indicators of 13 countries between 1952 and 1989. As a result of this study, it was determined that voter ideology is significantly affected by economic changes. In addition, while it was determined that the biggest effect on the change in voter ideology is inflation, no significant relationship was found between unemployment and economic growth and voter ideology. Stevenson (2001) found in his study on 14 countries that voter preferences shifted to the left with economic growth and to the right during the recession. However, in the study, it was determined that while the voter ideology is in the same direction with GDP and growth rates, it has an inverse correlation with inflation and unemployment rates.

Markussen (2008) conducted a study to investigate the effect of economic changes on the political sensitivities of voters in OECD countries. As a result of the study, it was determined that economic growth within the scope of political sensitivity shifts the preferences of voters to the left. In the study of De Neve (2009), the effect of changes in the economy on voter behaviour and ideology was investigated. As a result of the analysis, it was determined that the voter ideology is affected by the growth rate, inflation, unemployment, income growth rate, military expenditures and changes in the inequality index.

In their study, Dean and Croft (2009) found that the voters make decisions according to their own interests and that they make a cost-benefit analysis while determining which party to vote for. Çınar (2010) determined that the most important macroeconomic variable affecting voter preference is inflation. Kapusizoğlu (2011) investigated the behaviour of voters against economic crises. As a result of this study, it was determined that economic crises are an important factor in voter preferences. According to the study of Başlevent and Kirmanoğlu (2016), economic conditions are an important factor in the party preferences of voters. Eroğlu (2019) examined the effect of economic growth on the vote rates of political parties. As a result of the study, it was determined that domestic economic growth has a positive effect on the vote rates of the party in the current government.

3. MODEL AND DATA

Given the delineations in the introduction and literature review sections, it can be argued that the vote rates of political parties are affected by positive and negative developments in economic factors. Vote rates of political parties can be defined as a function of per capita gross domestic product, unemployment and inflation rates. The time series form of the model used in the current study can be expressed as follows;

$$\ln VOT_t = \beta_0 + \beta_1 \ln GDP_t + \beta_2 \ln UNE_t + \beta_3 \ln INF_t + \vartheta_t$$

In this time series model, $\ln VOT_t$ represents the votes of political parties, $\ln GDP_t$ represents per capita gross domestic product, $\ln UNE_t$ represents the unemployment rate, $\ln INF_t$ represents the inflation rate calculated by using the consumer price index (CPI), which measures the rate of change of consumer goods and services over time and μt represents the error term. Since the results of the growth rates yield more reliable results than the linear forms, the percentage growth rates of all the series were used in the current study. The data used consist of observations between 1990 and 2019. The series used in the study were obtained from the Supreme Election Council (SEC), World Development Indicators (World Bank), International Financial Statistics (IMF) and Turkish Statistical Institute (TSI) database.

4. METHODS AND FINDINGS

In the current study, the effects of per capita gross domestic product, unemployment and inflation rates on the vote rates of political parties were investigated. In this context, unit root tests, cointegration analysis tests, short and long term-coefficient estimation tests and causality test were used to examine the relationship between

variables in the study. A four-stage process was followed for the analysis of the created time series model. First, unit root tests were performed to determine the stationarity of the variables. Secondly, cointegration tests were carried out considering structural breaks. Third, short and long-term coefficient estimation was made with the autoregressive distributed lag bounds test. Finally, the causality test was conducted to determine the causality relationship and its direction between the variables.

In this context, first of all, in order to make the cointegration relationship between the variables and to make the short and long term coefficient estimation, it is necessary to determine the variables' degree of stationarity. To this end, Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests were used. In the ADF and PP unit root test assumption, in the H0 hypothesis, it is accepted that the series has a unit root, that is, the series is not stationary, while in the H1 hypothesis, it is decided that the series is stationary, that is, it does not have a unit root (Tekbaş, 2020: 99). If the series is not stationary, the unit root analysis is continued by taking the difference of the series. The results of ADF and PP unit root tests that do not take into account structural breaks are shown in Table 1.

Table 1. Unit Root Tests without Structural Breaks

Augmented Dickey-Fuller (ADF) Test				
Variables	Level		First Differences	
	Constant	Constant and Trend	Constant	Constant and Trend
VOT	-0.876 (0.781)	-2.608 (0.279)	-5.736 (0.000)	-5.573 (0.000)
GDP	-5.660 (0.000)	-5.640 (0.000)	-9.248 (0.000)	-9.080 (0.000)
INF	-4.486 (0.001)	-2.309 (0.414)	-2.218 (0.204)	-3.731 (0.037)
UNE	-1.030 (0.728)	-2.222 (0.460)	-4.771 (0.000)	-4.757 (0.003)
Phillips-Perron (PP) Test				
Variables	Level		First Differences	
	Constant	Constant and Trend	Constant	Constant and Trend
VOT	-0.889 (0.777)	-2.649 (0.263)	-5.744 (0.000)	-5.583 (0.000)
GDP	-5.755 (0.000)	-6.689 (0.000)	-22.352 (0.000)	-25.181 (0.000)
INF	-0.888 (0.777)	-1.877 (0.639)	-5.435 (0.000)	-5.334 (0.000)
UNE	-1.058 (0.718)	-2.216 (0.463)	-4.903 (0.000)	-4.989 (0.002)

Note: The values specified in parentheses are the values of prob.

According to the results of the ADF and PP unit root tests shown in Table 1, the VOT, INF and UNE variables are with the unit root at level values; that is, they are not stationary. For these variables, the H1 hypothesis was rejected and the H0 hypothesis was accepted. When the first difference of the VOT, INF and UNE variables was taken, it was determined that they are not with the unit root, that is, they are stationary. In this context, the H0 hypothesis was rejected and the H1 hypothesis was accepted. The GDP variable was found to not contain a unit root at both the level value and the first difference value, that is, it is stationary. For the GDP variable, the H0 hypothesis was rejected at the level value and the H1 hypothesis was accepted.

In addition, the CS multiple structural break unit root test, which was developed by Carrion-i-Silvestre et al. (2009) and allows structural breaks related to the variables examined, was used. This test detects break points using the Bai and Perron (2003) algorithm with the help of the quasi-GLS (Generalized Least Squares) method.

CS is based on the test statistics they developed while examining the unit root test under structural breaks. When the test statistics calculated in the CS test are less than the critical value at the 5% significance level, it is accepted that there is a unit root under the structural breaks (H0 hypothesis). If the calculated test statistics are greater than the critical value at the 5% significance level, it is accepted that there is no unit root under structural breaks (H1 hypothesis). The results of the CS test are shown in Table 2;

Table 2. Carrion-i-Silvestre et al. (2009) Unit Root Test Results

Variables	P_T	MP_T	MZ_α	MSB	MZ_t	Break Dates (3)
<i>VOT</i>	16.25 [5.72]	17.22 [5.72]	-11.00 [-31.55]	0.21 [0.12]	-2.31 [-3.95]	1992; 1998; 2001
<i>UNE</i>	6.22 [4.61]	6.23 [4.61]	-22.27 [-27.69]	0.14 [0.14]	-3.33 [-3.68]	1993; 1996; 2007
<i>GDP</i>	2.00* [5.94]	2.03* [5.94]	-98.02* [-31.79]	0.07* [0.12]	-6.98* [-3.97]	2001; 2004; 2009
<i>INF</i>	4.43* [5.45]	4.45* [5.45]	-40.24* [-31.54]	0.11* [0.12]	-4.48* [-3.94]	1994; 1998; 2005
ΔVOT	3.93 * [6.22]	3.86 * [6.22]	-51.97 * [-30.99]	0.09 * [0.12]	-5.07 * [-3.91]	-
ΔUNE	4.26 * [5.54]	4.47 * [5.54]	-20.45* [-17.32]	0.15 * [0.16]	-3.19 * [-2.89]	-
ΔGDP	1.20 * [6.02]	1.18 * [6.02]	-161.39 * [-31.01]	0.05 * [0.12]	-8.97 * [-3.89]	-
ΔINF	3.77 * [4.61]	3.78 * [4.61]	0.04 [-27.69]	1.16 [0.14]	4.90 [-3.68]	-

Note: The numbers in brackets are critical values generated with bootstrap at 5 percent level, * indicates significance at 5 percent level.

Table 2 shows the results of the Carrion-i Silvestre (2009) multiple structural break unit root test based on quasi-GLS. According to the results of the CS unit root test, three important break points were determined for each variable within the scope of the time span examined. As can be seen in Table 2, the VOT and UNE variables are not stationary at their level values and are stationary when the first difference is taken. The GDP and INF variables were determined to be stationary at both level values and first difference values. When some break points of the vote rates of political parties are evaluated, it is seen that the 1997 break point may be due to the effect of the post-modern coup occurring in Turkey with the decisions made by the NSC (National Security Council) on 28 February 1997. The break point in the votes of political parties in 2001, on the other hand, refers to the great political instability and political crisis in Turkish politics, which started with the debate between then-President Ahmet Necdet Sezer and then-Prime Minister Bülent Ecevit at the NSC meeting on February 19, 2001. It is seen that the 2001 break point in the GDP variable may be caused by the global economic crisis in 2001, the 1998 break point in the INF variable may be caused by the Russian crisis, and the 2007 break point in the UNE variable may be caused by the great economic recession that started in the USA in 2007 and affected the whole world until 2009. From this point of view, it is seen that the break points determined by the CS test have successfully detected many important internal and external political and economic events in Turkey during the examined period.

In the presence of structural breaks, the results obtained in the cointegration tests that examine the long-term relationship between the variables, as in the unit root tests, may yield biased results (Westerlund and Edgerton,

2006). In addition, for the analyses made on non-stationary time series to be significant and reflect the real relationships, there should be a cointegration relationship between the series (Gujarati, 1999: 725-726). Considering all these assumptions, in order to test the cointegration relationship in the current study, the cointegration test developed by Maki (2012) and which takes structural breaks into account internally was used. The Maki (2012) structural break cointegration test allows up to five structural breaks. The hypotheses for the Maki cointegration test are; H0: There is no cointegration under structural breaks, H1: There is cointegration under structural breaks. The results of the Maki (2012) structural break cointegration test are shown in Table 3.

Table 3. Maki (2012) Cointegration Test Under Multiple Structural Breaks

Test Statistics	Critical Value			Break Dates
	(%1)	(%5)	(%10)	(5)
-20.088***	-6.784	-6.250	-5,976	1994, 1997, 2000, 2005, 2009

Note: *, **, *** indicate the existence of cointegration relationship at the significance level of %1, %5, %10, respectively. Model 1, which gave the most significant result, was used in the analysis. Break dates are structural break dates determined internally by the test. Critical values are taken from the study of Maki (2012).

As can be seen in Table 3, the test statistics calculated is -20.008. Since this test statistics value is smaller than the critical values calculated at the 5% significance level, it is accepted that there is a cointegration relationship between the variables. According to the test results obtained, the H0 hypothesis was rejected and the H1 hypothesis was accepted. In addition, the five structural break dates detected by the Maki cointegration test are shown in Table 3.

The break date in 1994 seems to be related to the 1994 economic crisis, the break date in 1997 seems to be related to the effect of the post-modern coup that took place with the decisions of the National Security Council on February 28, 1997, the break date in 2000 seems to be related to the 1998 Russian crisis and the delayed effect of two very large earthquakes in Turkey in 1999, the break date in 2005 seems to be related to the effect of the economic recession after the excessive foreign exchange outflow in Turkey, and the 2009 break data seems to be related to the lagged effect of the 2008 global crisis.

After determining the cointegration relationship between the vote rates of political parties and per capita gross domestic product, unemployment rate and inflation rate, the autoregressive distributed lag bounds test (ARDL) was used to estimate the short and long-term coefficients. When the diagnostic test results of the autoregressive distributed lag bounds test model were evaluated, it was found that there is no variance problem in the model according to the Breusch-Pagan-Godfrey and ARCH test, that there is no autocorrelation in the model according to the Breusch-Godfrey LM test, that the error term is normally distributed according to the Jarque-Bera test, that the model is constructed according to correct specifications and that the calculated F bond value is significant at the level of 5% (Tekbaş and Oğuz, 2020: 145).

In this connection, ARDL test can be performed to determine the long and short-term relationships between the series. ARDL test results are given in Table 4. The break dates determined in Maki (2012) cointegration test were included in the analysis as dummy variables in ARDL test (DUM1:1994, DUM2:1997, DUM3:2000, DUM4:2005 and DUM5:2009).

Table 4. Short and Long-Term ARDL Cointegration Coefficients Results

ARDL Short-Term Coefficients				
Dependent Variable: VOT				
Variable	Coefficient	Std.Error	t-Statistic	Prob.
CointEq(-1)	-1.037455	0.142240	-7.293709	0.0000*
D(UNE)	-0,485192	0.467874	-1.037014	0.3173
D(GDP)	0.221695	0.085360	2.597172	0.0211**
D(İNF)	0.091019	0.057783	1.575176	0.1375
D(DUM 1)	0.506554	3.149153	0.160854	0.8745
D(DUM 2)	12.105213	3.093503	3.913108	0.0016**
D(DUM 3)	-3.122324	2.637408	-1.183861	0.2562
D(DUM 4)	-7.569492	2.579007	-2.935041	0.0109**
D(DUM 5)	5.305814	2.609897	2.032959	0.0615***
ARDL Long-Term Coefficients				
Dependent Variable: VOT				
Variable	Coefficient	Std.Error	t-Statistic	Prob.
UNE	-0.767918	0.548724	-1.399460	0.1834
GDP	0.129445	0.171931	0.752889	0.4640
İNF	-0.479533	0.102536	-4.676734	0.0004*
DUM 1	-0.499685	4.258839	-0.117329	0.9083
DUM 2	7.545964	4.577912	1.648342	0.1215
DUM 3	-1.800367	4.019707	-0.447885	0.6611
DUM 4	-11.108926	4.591601	-2.419401	0.0297**
DUM 5	2.594105	2.640444	0.982450	0.3426
C	63.309145	10.837090	5.841895	0.0000*

Note: DUM1:1994, DUM2:1997, DUM3:2000, DUM4:2005 and DUM5:2009 dummy variables indicating the breaks in the given years. *, **, *** indicate the significance of the series at the levels of 1%, 5%, 10%, respectively.

As can be seen in Table 4, per capita gross domestic product affects the vote rates of political parties in a positive and statistically significant way in the short-term. It is seen that an increase in per capita gross domestic product in a short term will increase the vote rates of political parties. This might be because voters positively evaluate any increase in their personal incomes that may occur in a short-term, but they become insensitive to the increase in their personal incomes in a long-term. In the short-term, the DUM2 and DUM5 dummy variables have a positive effect, while the DUM4 dummy variable has a negative effect on the vote rates of political parties. In the long-term, a relationship was found between the inflation rate and the vote rates of political parties. An increase in the inflation rate decreases the vote rates of political parties in the long-term. However, it was determined that only the DUM4 dummy variable has a negative effect on the vote rates of political parties in the long-term. After estimating the short and long-term coefficients of the variables, the causality relationship between the variables was investigated with the Toda-Yamamoto Granger causality test. The results of the Toda-Yamamoto Granger causality test are given in Table 5.

Table 5. Toda-Yamamoto Granger Causality Test Results

Dependent Variable	VOT	UNE	GDP	İNF
VOT	-	0.844 (0.6556)	1.151 (0.5622)	11.958 (0.0025) ***
UNE	0.168 (0.9190)	-	0.641 (0.7255)	3.666 (0.1599)
GDP	0.036 (0.9819)	3.623 (0.1634)	-	1.266 (0.5309)
INF	0.912 (0.6338)	0.068 (0.9662)	1.525 (0.4664)	-

Note: *, ** and *** indicate statistical significance at 10, 5 and 1 percent levels respectively. Numbers in brackets are prob. values.

According to the results of the Toda-Yamamoto Granger causality test in Table 5, there is a one-way causality relationship from only the inflation rate to the vote rates of political parties. While this one-way relationship, which is determined from the inflation rate to the vote rates of political parties, is statistically significant at the 5% level, the coefficient of this relationship was determined to be 11.958. On the other hand, a causality relationship from per capita gross domestic product and unemployment rate to the vote rates of political parties could not be determined. The results obtained when per capita gross domestic product, unemployment rate and inflation rate are dependent variables are not statistically significant, and there is no causal relationship between these variables.

5. CONCLUSION AND DISCUSSION

The current study examined the relationships between the vote rates of political parties and per capita gross domestic product, unemployment rate and inflation rate in Turkey for the years between 1990 and 2011. In order to analyze this relationship, firstly, the degree of cointegration of the variables was determined with unit root tests. Secondly, the cointegration relationship between the variables was investigated with the Maki cointegration test, which takes into account structural breaks internally. Third, the autoregressive distributed lag bounds test (ARDL) was used to determine the short and long-term coefficients of the variables. Finally, the Toda-Yamamoto Granger causality test was used to determine the causality and direction of causality between the variables. On the basis of the results of the analyses, it was determined that the VOT and UNE variables are stationary at the first difference $I(1)$, while the GDP and INF variables are stationary at the level values $I(0)$. According to the cointegration test under multiple structural breaks, there is a cointegration relationship between the variables and they move in the same direction in the long-term. On the other hand, according to the ARDL bounds test results, there is a statistically significant and positive relationship between per capita gross domestic product and the vote rates of political parties in the short-term. However, in the long-term, there is a statistically significant and negative relationship between the inflation rate and the vote rates of political parties. Finally, the results of the causality test have revealed that there is a one-way Granger causality relationship from the inflation rate to the vote rates of political parties in Turkey.

The one-way causality relationship between the inflation rate and the vote rates of political parties indicates that the economic policies to be made towards inflation will affect the vote rates of political parties. Based on this finding, it can be said that Turkish voters will punish political parties with their votes at the ballot box in the face of negative inflationary policies. In fact, the results obtained from the long-term coefficient estimation support this finding because the negative developments in the inflation rate do not directly affect all voters at the same time, reducing their quality of life. The finding of the current study that the high inflation reduces the vote rate of the ruling party concurs with the findings reported by Lewis-Beck (1990), Durr (1993), Stevenson (2001), Kim and Fording (2001), De Neve (2009), Markussen (2008), Adaman et al., (2001), Chappel and Veiga (2000), Ercins (2007), Armutcu and Tan (2021) and Çarkoğlu (1997).

On the other hand, it can be said that voters reward political parties with their votes at the ballot box in the short-term, in the face of positive developments in per capita gross domestic product. This shows that voters will continue to support the political party in the current government due to a sense of self-interest and an increase in

their personal income in the short-term. The finding of the current study that the increasing per capita gross domestic product increases the vote rate of the ruling party is similar to the findings reported by Kramer (1971), Kim and Fording (2001), Nordhaus (1975), Tuft (1980), Bulutay and Yıldırım (1969), Başlevent, Kirmanoğlu and Şenatalar (2009), Çarkoğlu (1997), Akarca and Tansel (2006), Akarca and Tansel (2009) and Fair (1996).

Another important finding of the current study is that the unemployment rate does not have an effect on the preferences of voters, both in the causality analyses and in the short and long-term coefficient estimates. The reason for this might be that the unemployment rate does not affect all voters at the same time and at the same rate, and it may be due to the successful economic policies applied to the unemployed citizens in Turkey. When all these findings are evaluated, it is seen that the economic voting theory is valid in Turkey. It is suggested to political parties and policy makers in Turkey that they take into account the factors of inflation and per capita GDP within the scope of political marketing and that they can maintain or increase their votes with successful campaigns and policies.

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Investigation of The Effect of Turkish Tv Series Watched by Arab Tourists on Their Preference for Visiting Turkey

Arap Turistlerin Türkiye'ye Gelme Sebeplerinde İzledikleri Türk Dizilerinin Etkilerinin İncelenmesi

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ABSTRACT

Keywords:
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Turkish TV series are broadcast in many continents from the Middle East to the Balkans, Africa to Central Asia, the Far East and South America, and are watched by 700 million people in about 156 countries. In this respect, TV series have become one of the effective soft power tools of Turkey in different parts of the world. The adventure of Turkish TV series to conquer the world is an important issue that increases the material and moral gains of Turkey day by day, and thus they should be prioritized. In this study, it was aimed to determine the effect of the Arab people's attitude towards Turkish series and their perception of the image of the on their preference for visiting Turkey. It is a known fact that TV series and movies have the power to direct the and create awareness. In the current study, Turkey was evaluated as a rising soft power that can play an active role in the regional and global arena through its various soft power sources such as its culture, values, foreign policy and economic success, and the effects of Turkish TV series on Arab people and especially the effects of their attitudes towards the TV series and perceptions of the image of the country on their preference for visiting the country were aimed to be examined. To this end, a survey was conducted on 500 Arabs who came to Turkey for touristic purposes. As a result of the analyses, a statistically significant positive relationship was determined between the attitudes towards Turkish TV series and Turkey's image and the effect of Turkish TV series on the participants' preference for visiting Turkey. In addition, Arab tourists' attitudes towards TV series and their perception of the image of Turkey were found to be varying significantly depending on some demographics.

ÖZET

Anahtar Kelimeler:

Türk Dizileri,
Arap Turistler,
Yumuşak Güç,
Türkiye imajı

Türk Yapımı Televizyon dizileri Orta Doğu'dan Balkanlar'a, Afrika'dan Orta Asya'ya, Uzak Doğu'dan ve Güney Amerika'ya kadar pek çok kıtada yayınlanmakta ve yaklaşık 156 ülkede 700 milyon kişi tarafından izlenmektedir. Bu yönüyle diziler Türkiye'nin dünyanın farklı coğrafyalarındaki etkili yumuşak güç araçlarından biri haline gelmektedir. Türk dizilerinin dünyayı fethetme serüveni, Türkiye'nin maddi manevi kazanımlarını günden güne artıran ve önemsenmesi gereken mühim bir konudur. Bu çalışmada Arap halkının Türk dizilerine karşı tutumunun ve Türkiye imaj algısının Türkiye'yi ziyaret etmelerindeki etkisinin tespit edilmesi amaçlanmıştır. Dizi ve filmlerin toplumlara yönlendirme ve farkındalık yaratma gücü bilinen bir gerçektir. Bu çalışmada, Türkiye, kültürü, değerleri, dış politikası ve ekonomik başarısı gibi çeşitli yumuşak güç kaynakları nedeniyle bölgesel ve küresel alanda aktif rol oynayabilecek yükselen bir yumuşak güç olarak değerlendirilmiş ve Türk dizilerinin Arap halkı üzerindeki etkileri ve özellikle dizilere karşı tutumun ve ülkeye karşı oluşan algının Arap halkının Türkiye'yi ziyaret etmesindeki etkileri incelenmiştir. Bu amaçla araştırma Türkiye'ye turistik amaçla gelmiş 500 Arap üzerinde bir anket uygulanmıştır. Yapılan analizler sonucunda Türk dizilerine yönelik tutum ile Türkiye imajı, Türk dizilerinin Türkiye'yi ziyaret etme etkisi arasında pozitif ve istatistiksel olarak anlamlı bir ilişki tespit edilmiştir. Ayrıca Arap turistlerin demografik özelliklere göre Türk dizilerine karşı tutum ve Türkiye imaj algısı farklılaştığı belirlenmiştir.

1. INTRODUCTION

During the 2000s, series and films produced in Turkey started to be exported to the Arab world, which led to changing perception of Turkey among Arab people, increasing interest in Turkey, Arab people's increasing questioning of their social structure, reduction of the political gap between the Middle East geography and Turkey and re-interpretation of the elements of Turkish foreign policy. Turkey's foreign policy approaches gaining the sympathy of Arab people recently and increasing interest in Turkish TV series motivated Arab people to visit Turkey for touristic purposes (Dinçer and Kutlay, 2012).

The power of TV series and movies to direct societies and create awareness is known (Zavalsız and Soydaş-Dağcı, 2019). Initially, the importance of this power was not taken into consideration in the export of Turkish TV series and movies to the Middle East, but later on, Turkish politicians realized that this export sector would yield significant gains for Turkey in bilateral political relations both globally and regionally (Budak, 2019: 148).

The international dissemination of Turkish television series took place rapidly in a short time between 2005 and 2011. The total number of hours of television series and movies exported to 76 countries is 36,000. Up to 2015, more than 100 Turkish series were exported to 80 countries (Yeşil, 2015). Turkish TV series have been exported to different cultures such as the Middle East, Balkans, Russia, Africa, Europe and Latin America (Kantarıcı, Başaran and Özyurt, 2015). Approximately 6% of these dramas are broadcast on Middle Eastern and North African Arab televisions (Yanardağoğlu and Karam, 2013). The broadcasting of Turkish series in the Middle East and North African countries was started by the manager of the MBC media company who happened to watch a Turkish TV series in a hotel room in Turkey while he was on holiday. Since then, MBC has been buying Turkish TV series (Alankuş and Yanardağoğlu, 2016). In 2010, the rate of those who watched Turkish TV series in Arab countries is 78%, and it was the highest in Iraq and Syria (Yoruk and Vatikiotis, 2013).

With Turkish series, Turkey aimed to take Arab people under its influence by using its fourth power effectively (Öztürk and Atik, 2016: 68-69). This was thought to make positive contributions to the promotion of Turkey, its export revenues, tourism income, house sales, the emergence of new holiday destinations, accordingly to its economy (Nuroğlu, 2013; Yılmaz, 2014: 31; Aslan, 2019: 33).

There are many reasons why Arabs like Turkish TV series so much. The physical attraction of the actors, natural landscapes with colours of green and blue, romance, emotional scenarios, quality productions, natural acting, historical and modern attractive places and music can be counted among these reasons (TÜROB, 2018). In addition, this popularity of Turkish series can also be related to the fact that the people of the Middle East find the closeness that cannot be found in Brazilian and American TV series in Turkish TV series (Pinto, 2012), that they can see that one can be both Muslim and modern, and to the elements such as common culture, history, language and religion (Deniz, 2010: 61).

The first Turkish TV series export to Kazakhstan started in 2001 with the *Deli Yürek* series (Öztürk and Atik, 2016: 74), but the *Gümüş* series is known as the first series to be exported mostly because of its incredible popularity in the market (Deniz, 2010: 51). This continued in 2008 with the export of the *Bin Bir Gece* series to Bulgaria (Ökmen and Göksu, 2019) and the *Gümüş* series to the Middle East (Deniz, 2010: 51).

Through the influence of the *Gümüş* series, İstanbul became a popular destination for Arab tourists and the number of Syrian tourists increased from 41,000 in 2007 to 100,000 in 2008. Through the influence of the *Gümüş* series, the rate of tourists coming from Arab countries and Israel to Turkey increased by 56% in the first six months of 2011 and up to 2011, the number of tourists visiting the mansion where the series was filmed by paying a \$50 entry fee was 30,000 (Akdu and Akın, 2016).

The popularity gained by the *Gümüş* series was far beyond the expectations, the series' finale was watched by 85 million people in the Arab world and the *Ihlamurlar Altında* series reached 67 million Arab viewers and all these developments caused the Turkish TV series industry to attach special importance of Arab market. Today, 75 Turkish TV series are broadcast on more than 40 Arab TV channels. These series provided more effective publicity than the advertisements that could have been made possible by paying too much money. Historical samples of Ottoman heritage and beautiful sceneries of İstanbul shown in these series increase Arab people's interest in Turkey (Dinçer and Kutlay, 2012). The momentum gathered by the unexpected success of the *Gümüş* series, broadcast with the name of *Noor* in the Middle East, resulted in Turkey's being the second in the series export market after America in the world today (Öztürk and Atik, 2016: 74).

In this connection, the purpose of the current study is to determine the effect of the Arab people's attitude towards Turkish series and their perception of the image of the Turkey on their preference for visiting Turkey. In addition, it is also aimed to investigate whether Arab tourists' attitudes towards Turkey and the perception of the image of Turkey vary significantly depending on some demographic variables (gender, age, income, education and marital status). To this end, a survey study was conducted on 500 Arabs who came to Turkey for touristic purposes.

2. LITERATURE REVIEW

Turkey started to sell its TV series to foreign countries in 2001. The export of TV series has increased in recent years and Turkish TV series have begun to reach a large audience in the Middle East and the Balkans. This has made positive contributions to international viewers' perception of the image of Turkey (Brljavac, 2011) and positively affected their opinions about Turkey (Öktem, 2010). The growing popularity of Turkish television series in the Middle East and the Balkans has been observed to lead to increases in trade and tourism revenues from the countries in these regions to which Turkish TV series have been exported (Balli, Balli and Cebeci, 2013). It is widely accepted that the general consumption of television series tends to increase and that they are an effective tool of promotion (Pervan and Martin, 2002; Miller, 1995).

The study conducted by Deniz (2010) is one of the first studies in the literature on the subject. Deniz (2010) examined the sociological effects of the *Gümüş* series in particular and Turkish TV series in general in social media environments. According to Deniz, Turkey should consider this process as a means of achieving global and regional achievements within the context of soft power taking into consideration its political and economic effects.

Akova (2014) used the sample of Serbia, Montenegro and Bosnia and Herzegovina. The aim of the study was to contribute to the literature on intercultural communication by examining the concepts of TV series, diplomacy and tourism. Reception technique was used in the study; face-to-face interview and in-depth analysis techniques were also used. From the study, it was concluded that Turkish TV series served as a constructive mortar in Balkan countries, assumed the role of cultural ambassadors between Turkish culture and Balkan culture and strengthened the existing intercultural communication (Akova, 2014).

Matar (2017) examined how Turkish series affected Arab viewers in terms of their intention to visit Turkey. In this qualitative study, in-depth interviews were conducted with Arab tourists visiting Turkey (30 people). Findings showed that TV series are critical in destination marketing and play a role in increasing the number of tourists.

Temina (2019) investigated the effect of Turkish series on the society, particularly the effect of Turkish series watched in Algeria on the Algerians' perception of Turkey, and the effect of TV series on the society and family, religion and socio-cultural issues. In the study, the questionnaire method was used to collect the data. From the study, it was concluded that Algerians who watched Turkish TV series in general admired the TV series because they found sections of their own lives in these series (Temina, 2019).

In the study conducted by Yukarı, Veyseller, Öykü, and İyigün (2018), it was aimed to evaluate the favourite series of *Muhteşem Yüzyıl*, which was mostly exported to the Middle East and watched with appreciation, in terms of destination preference. The primary data of the study were collected through semi-structured in-depth interviews with tourists from the Middle East. This study was conducted with 10 tourists from 5 Middle Eastern countries (Saudi Arabia, UAE, Bahrain, Oman and Qatar) to elicit their opinions only on the *Muhteşem Yüzyıl* series. In the study, it was concluded that the cultural traces and similarities such as intercultural common words, common meals and common customs and traditions attract Arab tourists.

In the study conducted by Akşen (2016), the reasons for which Turkish TV series and actors are named phenomena by the Arab people have been examined in the example of *Gümüş*. In the study, some social findings were obtained from the analysis of the *Gümüş* TV series, which was watched with great admiration in the Arab world, and the results were evaluated. The study took the TV series as the unit of analysis and the *Gümüş* TV series as the universe. The reason why this TV series became so popular is thought to be the longing of Arab women for freedom and their seeing secular Turkey as the guarantor of freedom.

In the study conducted by Akdu and Akın (2016), it was aimed to examine the effects of films on consumers' destination preferences and to present suggestions in this regard. When the results of the study are examined, it is seen that 35.5% of the participants stated that they visited the country to see and experience the locations and cultural values shown in the series, 26.3% stated that they visited the country to see the natural beauties shown in the series and 23.9% stated that they visited the country to see the historical places shown in the series.

Geçer (2015) conducted a study to make socio-cultural evaluations on the basis of the series produced in Turkey. The study investigated the popular culture interactions brought about by the increasing number of made-in-Turkey series shown in Turkish TV channels nationally and internationally and claimed to cause a cultural transformation and cultural emphases shaping these interactions based on the discussions made about the series together with a literature review.

The study conducted by Ozturk and Waste (2016) took the series as its subject of investigation as one of the most important reflections of the global market policies put into effect in Turkey and of the growth observed in the

media sector in the 2000s. Three of each 4 Turkish series filmed were exported to 103 countries and it was estimated that the series reached 400 million viewers. Thus, it was concluded that after America, Turkey is the country exporting the highest number of series to the world.

Yigit (2013) stated that with TV series considered to be one of the cornerstones of soft power, Turkey has become successful in introducing modern Turkey to the world and that actors and actresses from Turkish series have been used to promote export from other sectors to the Middle East. The most important outcome of this popularity of Turkish series in the Arab world is the perception of Turkey as a modern country by Arab people. Other concrete outcomes are Arab people's increasing interest in Turkish culture and language and the increasing number of Arab tourists visiting Turkey.

3. METHOD

In the section, the research model, population, sample and data collection tools used in the current study, validity and reliability studies and the statistical methods used in the analysis of the collected data are presented.

3.1 Research Model

In this quantitative study, the data were objectively revealed and analysed. The current study is a correlational study employing the questionnaire technique to collect data. The relational survey model aiming to determine the presence and degree of the relationship between the variables was used in the current study. The correlation method was also used to determine whether the variables of the study showed a consistent covariance.

3.2. Population and Sample

The population of the current study is comprised of the Arab tourists coming to Turkey to visit İstanbul and Antalya. The data were collected through the face-to-face administration of the data collection tool. The data collection was presented to the participants tool and they were asked to respond to it on a volunteer basis. The questionnaire was administered to tourists at Antalya and İstanbul and Sabia Gökçen Airports and the Arab tourists staying in the Dedeman Hotel (with the assistance of the personnel) and the questionnaire was also administered to tourists at Sultanahmet square, Gülhane, Eminönü, Maiden's Tower, Çamlıca hill and in Cevahir shopping mall.

According to the data issued by TÜİK (Turkish Statistical Institute), 200 thousand Arab tourists visit Turkey on average every year. These 200 thousand Arab tourists constitute the population of the current study. From among these 200 thousand tourists, a total of 500 tourists coming to visit İstanbul and Antalya were selected by means of the random sampling method. When calculated considering the population size of 200 thousand and the sample size of 500, the error margin resulting from the sample of the study was found to be 4.38% at the 95% confidence level.

3.3. Data Collection Tools

The data of the current study were collected by means of the questionnaire technique. In the current study, a total of two scales called the Image of Turkey and The Effect of Turkish Series were used. The first scale (The Image of Turkey) was developed by Aliyev (2014). The second scale (The Effect of Turkish Series) was developed by Örgün (2012). The required permissions were obtained from the authors to use these scales. The validity and reliability studies of the scales had already been conducted by the authors.

The questionnaire used in the current study was first prepared in Turkish. Then it was translated into Arabic by an official translator of Syrian origin registered to the 2nd Notary Public in the city of Malatya with the name of Baraa Rihavi. After the necessary controls were conducted on the questionnaire, it was administered to Arab tourists.

The questionnaire used in the current study consists of four parts. In the first part of the questionnaire, there is the personal information form developed by the researcher to elicit some demographics of the participants such as age, marital status, education level, gender and income level. In the second part of the questionnaire, there is the 8-item Turkish Series Attitude Scale; in the third part, there is the 8-item Scale of the Effect of Turkish Series on a visit to Turkey. These two scales were adapted from the scales developed by Abisheva (2019). In the fourth part of the questionnaire, there is the 21-item the Image of Turkey Scale adapted to Turkish by Aliyev (2014).

3.4 Data Collection

First, the necessary permissions were obtained to use the scales in the current study and then the questionnaire form was face-to-face administered to the participants within a two-month period and thus, the data of the study were collected. In order to collect demographic information of the participants, the personal information form developed by the researchers was used. The participation in the study was voluntary and no incentive was offered to the participants in return for their participation. No information about the identity of the participants was requested and it took the participants 5-10 minutes to complete the questionnaire. The protection of the obtained data for two years in compliance with the principles of confidentiality and ethics will be under the responsibility of the researcher.

3.5 Data Analysis

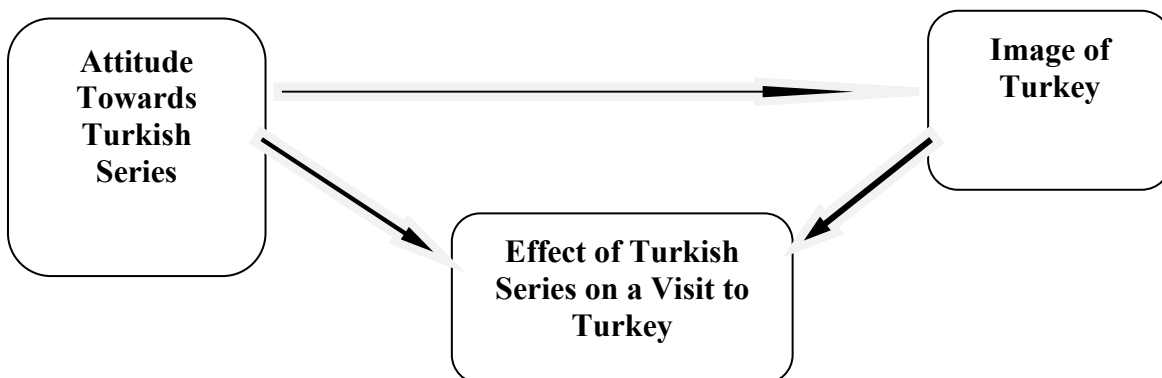
First, the responses of the participants to the scales were examined and the scales observed to be incomplete or erroneous were discarded from the analysis. Moreover, the scales of the respondents who were found to have responded insincerely or without even reading the items in the scales were excluded from the analysis. As a result, the data obtained from the questionnaires of 19 respondents were found to be unsuitable for analysis and thus excluded from the study. As some of the participants found the items in the questionnaire discomforting, they did not want to complete the scales and correspondingly the data of 8 participants were excluded from the study. As a result, the data collected from 500 participants were found to meet the criteria of analyzability and thus the analyses of the study were conducted on the data obtained from 500 participants.

The data in the current study were collected by means of the questionnaire method. The questionnaires were administered to the participants face-to-face. In the analysis of the collected data, SPSS 22.00 program package was used. In the study, first, the demographic information of the participants is presented. Then, the reliability calculations of the three scales used in the study are given. In order to determine whether the data distributed normally, Kurtosis and skewness values were calculated. After it was determined that the data distributed normally, ANOVA and t-test were run to determine whether the variables varied significantly depending on the demographic variables. Pearson correlation and regression methods were used to determine the interaction between the variables.

3.6. Research Model and Hypotheses

In the current study, the following model was developed to determine the effect of the attitudes towards Turkish series and the perception of the image of Turkey on Arab tourists' preference for visiting Turkey:

Figure 1. Research Model



- H_1 = Arab people's perception of the image of Turkey has a significant effect on their preference for visiting Turkey.
- H_2 = Arab people's attitudes towards Turkish series has a significant effect on their preference for visiting Turkey.
- H_3 = There is a significant correlation between Arab people's attitudes towards Turkish series and perception of the image of Turkey.
- H_4 = Arab people' attitudes towards Turkish series and perception of the image of Turkey vary significantly depending on gender.
- H_5 = Arab people' attitudes towards Turkish series and perception of the image of Turkey vary

- significantly depending on marital status.*
- *H₆= Arab people' attitudes towards Turkish series and perception of the image of Turkey vary significantly depending on age.*
 - *H₇= Arab people' attitudes towards Turkish series and perception of the image of Turkey vary significantly depending on education level.*
 - *H₈= Arab people' attitudes towards Turkish series and perception of the image of Turkey vary significantly depending on income level.*
 - *H₉= Arab people' attitudes towards Turkish series and perception of the image of Turkey vary significantly depending on whether having visited Turkey before.*
 - *H₁₀= Arab people' attitudes towards Turkish series and perception of the image of Turkey vary significantly depending on whether they follow the Turkish series.*
 - *H₁₁= Arab people' attitudes towards Turkish series and perception of the image of Turkey vary significantly depending on whether they follow actors and actresses having appeared in Turkish series in social media.*

4. FINDINGS

In this section of the study, the results of the reliability analysis of the scales and the results of ANOVA and t-test conducted to determine whether the participants' scores taken from the Image of Turkey Scale, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey vary significantly depending on the demographic variables are presented. Moreover, the results of the regression and correlation analyses conducted to determine the correlations between the Image of Turkey Scale, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey are also presented.

4.1. Demographic Features of the Participants

In this section of the study, the demographic features of the participating Arab tourists and the data about the frequency of their having visited Turkey and having watched Turkish series before are presented.

Table 1. Demographic Features of the Participants

	Variables	N	%
Gender	Female	248	49.6
	Male	252	50.4
Age	18-25	141	28.2
	26-35	156	31.2
	36-50	119	23.8
	51 and older	84	16.8
Income Level	1000 \$ and less	128	25.6
	1001-2000 \$	122	24.4
	2001-3000 \$	186	37.2
	3001 \$ and more	64	12.8
Education Level	Elementary education and lower	56	11.2
	High school	149	29.8
	Associate's degree	100	20.0
	Undergraduate or graduate degree	195	39.0
Marital Status	Married	301	60.2
	Single	199	39.8

In Table 1, demographic information of the participants is presented. Nearly half of the participants are females and 60% of them are married. Moreover, 31.2% of the Arab tourists are in the age group of 26-35, 37.2% have income ranging from 2001 to 3000 \$ and 39% have undergraduate or graduate degree.

Table 2. Information about the Participants' Attitudes towards Turkish Series

	Variables	N	%
Have you ever been to Turkey before?	First time	222	44.4
	Second time	104	20.8
	Third time	84	16.8
	Fourth time or more	90	18.0
What is your frequency of watching Turkish TV series?	Never	150	30.0
	Once a month	79	15.8
	Once a week	147	29.4
	More than once a week	59	11.8
	Everyday	65	13.0
How many Turkish series have you watched from the beginning to the end?	None	121	24.2
	1	91	18.2
	2	95	19.0
	3	61	12.2
	4 and more	132	26.4
What is your reason for visiting?	Touristic	426	85.2
	Business	24	4.8
	Education	37	7.4
	Others	13	2.6
Do you follow actors and actresses having appeared in Turkish series in social media?	Yes	122	24.4
	No	378	75.6

In Table 2, information about the participants' attitudes towards Turkish series is given. The great majority of the participants have visited Turkey for touristic purposes and do not follow the actors or actresses having appeared in Turkish series on social media. Moreover, 44.4% of the Arab tourists have been to Turkey for the first time and 30% of them have never watched Turkish TV series. On the other hand, 26.4% of the participants have watched 4 or more Turkish series from the beginning to the end.

4.2. Reliability and Normality Tests

In this section of the study, the results of the reliability and normality tests of the Scale of Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey are presented.

Table 3. Reliability of the Scales Used in the Study

Scales	Number of	Cronbach's
Image of Turkey	21	0.964
<i>Holiday Image</i>	14	0.952
<i>General Image</i>	7	0.919
Turkish Series Attitude Scale	8	0.961
Scale of the Effect of Turkish Series on a visit to Turkey	8	0.977

In Table 3, the reliability values of the Scale of Image of Turkey, the Turkish Series Attitude Scale and the Scale of Effect of Turkish Series on a visit to Turkey are presented. When the results of the reliability test are examined, it is seen that the scales used in the current study are "highly reliable" (>.80).

Table 4. Descriptive Statistics of the Scales Used in the Study

Scales	N	Mean	Std. Deviation	Skewness	Kurtosis
Image of Turkey	500	4.1142	.79341	-1.431	1.430
<i>Holiday Image</i>	500	4.1740	.80961	-1.453	1.725
<i>General Image</i>	500	3.9946	.86621	-.958	1.068
Turkish Series Attitude Scale	500	3.5268	1.24970	-.646	-.537
Scale of the Effect of Turkish	500	3.3055	1.33559	-.241	-1.198

In Table 4, the descriptive statistics of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series to Visit Turkey are shown. According to Tabachnick and Fidell (2013), George and Mallery (2010), if the skewness and Kurtosis values are between +2.0 and -2.0, it can be argued that the distribution is normal and thus, parametric tests should be used. As the skewness and Kurtosis values of the Scale of Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series of a visit to Turkey were found to be ranging from +2.0 and -2.0, independent samples t-test, one-way variance analysis, Pearson correlation and regression analyses were used in the current study.

4.3. Comparison of the Perception of the Image of Turkey and Attitudes towards Turkish Series According to the Demographic Variables

In this section of the study, the results of t-test conducted to determine whether the perceptions of the image of Turkey and attitudes towards Turkish series vary significantly depending on marital, status, gender, age, education level and income level are presented.

Table 5. Comparison of the Perceptions of the Image of Turkey and Attitudes towards Turkish Series according to Gender

Scales	Groups	N	\bar{X}	Ss	T	P
Image of Turkey	Female	248	4.0611	.86842	-1.487	.138
	Male	252	4.1665	.70978		
Holiday Image	Female	248	4.1250	.88504	-1.344	.180
	Male	252	4.2222	.72635		
General Image	Female	248	3.9332	.93566	-1.574	.116
	Male	252	4.0550	.78917		
Turkish Series Attitude Scale	Female	248	3.3196	1.27285	-3.725	.000
	Male	252	3.7307	1.19430		
Scale of the Effect of Turkish Series on a visit to Turkey	Female	248	3.1174	1.35253	-3.151	.002
	Male	252	3.4906	1.29490		

In Table 5, the results of the t-test conducted to determine whether the participating Arab tourists’ mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey vary significantly depending on gender are presented. As a result of the t-test, it was concluded that the mean scores taken from the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit Turkey varied significantly depending on gender ($p < 0.05$). In other words, the mean scores taken by the male Arab tourists from the Turkish Series Attitude Scale and the Scale of Effect of Turkish Series on a visit to Turkey are significantly higher than those of the female tourists. On the other hand, the mean scores taken from the Scale of the Image of Turkey were found to be not varying significantly depending on gender ($p > 0.05$). That is, the female and male Arab tourists’ perceptions of the image of Turkey are similar to each other.

Table 6. Comparison of the Perceptions of the Image of Turkey and Attitudes towards Turkish Series according to Marital Status

Scales	Groups	N	\bar{X}	Ss	T	P
Image of Turkey	Married	301	4.1362	.70518	.763	.446
	Single	199	4.0809	.91167		
Holiday Image	Married	301	4.1984	.72775	.828	.408
	Single	199	4.1371	.92041		
General Image	Married	301	4.0119	.78692	.549	.583
	Single	199	3.9684	.97549		
Turkish Series Attitude Scale	Married	301	3.5681	1.15764	.910	.363

	Single	199	3.4642	1.37800		
Scale of the Effect of Turkish Series on a Visit to Turkey	Married	301	3.2471	1.28373	-1.203	.229
	Single	199	3.3938	1.40911		

In Table 6, the results of the t-test conducted to determine whether the participating Arab tourists' mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey vary significantly depending on marital status are presented. As a result of the t-test, it was concluded that the mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey did not vary significantly depending on marital status ($p>0.05$). That is, the mean scores taken by the married and single Arab tourists from these scales are similar.

Table 7. Comparison of the Perceptions of the Image of Turkey and Attitudes towards Turkish Series according to Whether Following the Actors and Actresses Having Appeared in Turkish Series in Social Media

Scales	Groups	N	\bar{X}	Ss	T	P
Image of Turkey	Yes	122	4.4820	.52130	6.100	.000
	No	378	3.9955	.82949		
<i>Holiday Image</i>	Yes	122	4.5322	.51328	5.801	.000
	No	378	4.0584	.85328		
<i>General Image</i>	Yes	122	4.3817	.64556	5.865	.000
	No	378	3.8696	.89175		
Turkish Series Attitude Scale	Yes	122	4.4027	.76187	9.699	.000
	No	378	3.2440	1.24597		
Scale of the Effect of Turkish Series on a Visit to Turkey	Yes	122	4.0789	1.10388	7.783	.000
	No	378	3.0559	1.30917		

In Table 7, the results of the t-test conducted to determine whether the participating Arab tourists' mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey vary significantly depending on whether following actors and actresses having appeared in Turkish series in social media are presented. As a result of the t-test, it was concluded that the mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey varied significantly depending on whether following the actors and actresses having appeared in Turkish series in social media ($p<0.05$). In other words, the mean scores taken by the Arab tourists following Turkish actors and actresses in social media from the scales are significantly higher than those of the Arab tourists not following Turkish actors and actresses.

Table 8. Comparison of the Perceptions of the Image of Turkey and Attitudes towards Turkish Series according to Education Level

Scales	Groups	N	\bar{X}	Ss	F	P
Image of Turkey	Elementary education and lower	56	3.9541	1.10063	5.503	.001
	High school	149	4.0668	.78691		
	Associate's degree	100	3.9462	.93421		
	Undergraduate and graduate	195	4.2825	.55299		
<i>Holiday Image</i>	Elementary education and lower	56	4.0344	1.17353	5.545	.001
	High school	149	4.1294	.80386		
	Associate's degree	100	3.9857	.93974		
	Undergraduate and graduate	195	4.3447	.54514		

<i>General Image</i>	Elementary education and lower	56	3.7934	1.07075	4.320	.005
	High school	149	3.9415	.86020		
	Associate's degree	100	3.8671	.99954		
	Undergraduate and graduate	195	4.1582	.69387		
Turkish Series Attitude Scale	Elementary education and lower	56	3.2254	1.45235	2.759	.042
	High school	149	3.5025	1.19388		
	Associate's degree	100	3.3938	1.19254		
	Undergraduate and graduate	195	3.7000	1.24097		
Scale of the Effect of Turkish Series on a Visit to Turkey	Elementary education and lower	56	3.0558	1.36513	.819	.484
	High school	149	3.3817	1.33398		
	Associate's degree	100	3.3213	1.16535		
	Undergraduate and graduate	195	3.3109	1.40950		

In Table 8, the results of the ANOVA test conducted to determine whether the participating Arab tourists' mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey vary significantly depending on education level are presented. As a result of the ANOVA test, it was concluded that the mean scores taken from the Scale of the Image of Turkey and the Turkish Series Attitude Scale varied significantly depending on education level ($p < 0.05$). In other words, with the increasing education level of the Arab tourists, their perceptions of the image of Turkey and attitudes towards Turkish series also developed positively. On the other hand, the mean scores taken from the Scale of the Effect of Turkish Series on a visit to Turkey were found to be not varying significantly depending on education level ($p > 0.05$).

Table 9. Comparison of the Perceptions of the Image of Turkey and Attitudes towards Turkish Series according to Age

Scales	Groups	N	\bar{X}	Ss	F	P
Image of Turkey	18-25	141	4.1550	.79461	0.982	0.401
	26-35	156	4.0259	.80802		
	36-50	119	4.1713	.74868		
	51 and older	84	4.1287	.82524		
<i>Holiday Image</i>	18-25	141	4.2305	.79174	1.009	0.388
	26-35	156	4.0820	.82851		
	36-50	119	4.2119	.78157		
	51 and older	84	4.1964	.84208		
<i>General Image</i>	18-25	141	4.0041	.89832	0.938	0.422
	26-35	156	3.9139	.86854		
	36-50	119	4.0900	.80531		
	51 and older	84	3.9932	.89088		
Turkish Series Attitude Scale	18-25	141	3.5523	1.31476	0.436	0.728
	26-35	156	3.5986	1.14775		
	36-50	119	3.4380	1.29821		
	51 and older	84	3.4762	1.26206		
Scale of the Effect of Turkish Series on a Visit to Turkey	18-25	141	3.4051	1.33119	0.594	0.619
	26-35	156	3.2091	1.35741		
	36-50	119	3.2763	1.28292		
	51 and older	84	3.3586	1.38418		

In Table 9, the results of the ANOVA test conducted to determine whether the participating Arab tourists' mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey vary significantly depending on age are presented. As a result of the ANOVA test, it was concluded that the mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey did not vary significantly depending on age ($p>0.05$). In other words, similar perceptions of the image of Turkey and attitudes towards Turkish series are possessed by Arab tourists from different age groups.

Table 10. Comparison of the Perceptions of the Image of Turkey and Attitudes towards Turkish Series according to Income Level

Scales	Groups	N	\bar{X}	Ss	F	P
Image of Turkey	1000 \$ and lower	128	4.3534	.64096	6.357	.000
	1001-2000 \$	122	4.0558	.93952		
	2001-3000 \$	186	3.9721	.83479		
	3001 \$ and higher	64	4.1600	.48111		
<i>Holiday Image</i>	1000 \$ and lower	128	4.4146	.61609	6.650	.000
	1001-2000 \$	122	4.0913	.95219		
	2001-3000 \$	186	4.0303	.86495		
	3001 \$ and higher	64	4.2679	.53619		
<i>General Image</i>	1000 \$ and lower	128	4.2310	.79025	4.968	.002
	1001-2000 \$	122	3.9848	.99430		
	2001-3000 \$	186	3.8556	.88923		
	3001 \$ and higher	64	3.9442	.53852		
Turkish Series Attitude Scale	1000 \$ and lower	128	3.6553	1.25968	1.279	.281
	1001-2000 \$	122	3.4877	1.29938		
	2001-3000 \$	186	3.5457	1.18347		
	3001 \$ and higher	64	3.2891	1.31174		
Scale of the Effect of Turkish Series on a Visit to Turkey	1000 \$ and lower	128	3.3721	1.50740	1.788	.148
	1001-2000 \$	122	3.3227	1.25019		
	2001-3000 \$	186	3.3710	1.26551		
	3001 \$ and higher	64	2.9492	1.30089		

In Table 10, the results of the ANOVA test conducted to determine whether the participating Arab tourists' mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey vary significantly depending on income level are presented. As a result of the ANOVA test, it was concluded that the mean scores taken from the Scale of the Image of Turkey varied significantly depending on income level ($p<0.05$). In other words, the participants with the income level of 1000\$ and lower have a significantly more positive perception of the image of Turkey than the other income groups. On the other hand, the mean scores taken from the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey were found to be not varying significantly depending on income level ($p>0.05$). In other words, Arab tourists from different income groups have similar attitudes towards Turkish series.

Table 11. Comparison of the Perceptions of the Image of Turkey and Attitudes towards Turkish Series according to the Frequency of Having Visited Turkey

Scales	Groups	N	\bar{X}	Ss	F	P
Image of Turkey	First time	222	4.1094	.78404	.186	.906
	Second time	104	4.1635	.81273		
	Third time	84	4.0918	.91136		

	Fourth time and more	90	4.0899	.67824		
<i>Holiday Image</i>	First time	222	4.1834	.78788	.133	.940
	Second time	104	4.1923	.82978		
	Third time	84	4.1241	.95851		
	Fourth time and more	90	4.1762	.69064		
<i>General Image</i>	First time	222	3.9614	.89187	.957	.413
	Second time	104	4.1058	.86839		
	Third time	84	4.0272	.90608		
	Fourth time and more	90	3.9175	.75440		
Turkish Series Attitude Scale	First time	222	3.5090	1.27039	8.592	.000
	Second time	104	3.5865	1.20704		
	Third time	84	3.0298	1.44185		
	Fourth time and more	90	3.9653	.83149		
Scale of the Effect of Turkish Series on a Visit to Turkey	First time	222	3.3874	1.35883	1.665	.174
	Second time	104	3.2308	1.49826		
	Third time	84	3.0506	1.24337		
	Fourth time and more	90	3.4278	1.13006		

In Table 11, the results of the ANOVA test conducted to determine whether the participating Arab tourists' mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey vary significantly depending on the frequency of having visited Turkey are presented. As a result of the ANOVA test, it was concluded that the mean scores taken from the Turkish Series Attitude Scale varied significantly depending on the frequency of having visited Turkey ($p < 0.05$). In other words, the attitudes of the Arab tourists having visited Turkey fourth time or more have more positive towards Turkish series than the Arab tourists having visited Turkey less. On the other hand, the mean scores taken from the Scale of the Image of Turkey and the Scale of the Effect of Turkish Series on a visit to Turkey were found to be not varying significantly depending on the frequency of having visited Turkey ($p > 0.05$). In other words, the perceptions of the image of Turkey possessed by Arab tourists visiting Turkey in differing frequencies are similar.

Table 12. Comparison of the Perceptions of the Image of Turkey and Attitudes towards Turkish Series according to the Frequency of Following Turkish Series

Scales	Groups	N	\bar{X}	Ss	F	P
Image of Turkey	Never	150	4.0746	.88055	1.545	.188
	Once a month	79	4.0482	.71532		
	Once a week	147	4.0651	.85729		
	More than once a week	59	4.2179	.65895		
	Everyday	65	4.3026	.59048		
<i>Holiday Image</i>	Never	150	4.1533	.89687	1.786	.130
	Once a month	79	4.0986	.75665		
	Once a week	147	4.1006	.85921		
	More than once a week	59	4.2954	.68144		
	Everyday	65	4.3692	.60208		
<i>General Image</i>	Never	150	3.9171	.97542	1.111	.350
	Once a month	79	3.9476	.74973		
	Once a week	147	3.9942	.92247		
	More than once a week	59	4.0630	.70250		

	Everyday	65	4.1692	.71379		
Turkish Series Attitude Scale	Never	150	2.6175	1.27880	45.592	.000
	Once a month	79	3.5443	.98751		
	Once a week	147	3.7908	1.16171		
	More than once a week	59	4.2119	.62812		
	Everyday	65	4.3846	.68298		
Scale of the Effect of Turkish Series on a Visit to Turkey	Never	150	2.7225	1.38081	14.886	.000
	Once a month	79	3.3101	1.34553		
	Once a week	147	3.4039	1.25360		
	More than once a week	59	3.8157	.94040		
	Everyday	65	3.9596	1.17595		

In Table 12, the results of the ANOVA test conducted to determine whether the participating Arab tourists' mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey vary significantly depending on the frequency of following Turkish series are presented. As a result of the ANOVA test, it was concluded that the mean scores taken from the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey varied significantly depending on the frequency of following Turkish series ($p < 0.05$). In other words, with the increasing frequency of following Turkish series by the Arab tourists, their attitudes towards Turkish series become more positive. On the other hand, the mean scores taken from the Scale of the Image of Turkey were found to be not varying significantly depending on the frequency of the following Turkish series ($p > 0.05$). In other words, the images of Turkey of the Arab tourists following Turkish series in differing frequencies are similar.

Table 13. Comparison of the Perceptions of the Image of Turkey and Attitudes towards Turkish Series according to the Frequency of Having Watched Turkish Series Before

Scales	Groups	N	\bar{X}	Ss	F	P
Image of Turkey	None	121	4.0476	.92406	4.347	.002
	1	91	3.8629	.95449		
	2	95	4.1353	.74401		
	3	61	4.2576	.61846		
	4 and more	132	4.2670	.57963		
<i>Holiday Image</i>	None	121	4.1482	.93519	4.938	.001
	1	91	3.8838	.98955		
	2	95	4.1647	.74770		
	3	61	4.3232	.61301		
	4 and more	132	4.3355	.59480		
<i>General Image</i>	None	121	3.8465	1.03282	3.225	.012
	1	91	3.8210	.95869		
	2	95	4.0767	.82509		
	3	61	4.1265	.72002		
	4 and more	132	4.1299	.67156		
Turkish Series Attitude Scale	None	121	2.4153	1.26432	55.772	.000
	1	91	3.4299	1.22704		
	2	95	3.6566	1.11117		
	3	61	4.0840	.77752		
	4 and more	132	4.2614	.66278		
Scale of the Effect of Turkish Series on a Visit to Turkey	None	121	2.5589	1.35833	16.891	.000
	1	91	3.2500	1.35913		
	2	95	3.4079	1.15823		
	3	61	3.7910	1.07256		
	4 and more	132	3.7301	1.23694		

In Table 13, the results of the ANOVA test conducted to determine whether the participating Arab tourists' mean scores taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey vary significantly depending on the frequency of having watched Turkish series are presented. As a result of the ANOVA test, it was concluded that the mean scores taken from the Scale of Image of Turkey, the Turkish Series Attitude Scale, the Scale of the Effect of Turkish Series on a visit to Turkey varied significantly depending on the frequency of having watched Turkish series ($p < 0.05$). In other words, with increasing frequency of watching Turkish series, the Arab tourists' perceptions of the image of Turkey and attitudes towards Turkish series also improved.

4.4. Interactions between the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey

In this section of the study, the results of the regression and correlation analyses conducted to reveal the interactions between the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey are presented.

Table 14. Correlations between the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of the Turkish Series on a Visit to Turkey

	Image of	<i>Holiday</i>	<i>General Image</i>	Turkish Series	Scale of the
Image of Turkey	1				
<i>Holiday Image</i>	.978**	1			
<i>General Image</i>	.920**	.818**	1		
Turkish Series	.408**	.375**	.418**	1	
Scale of the Turkish	.448**	.388**	.506**	.582**	1

In Table 14, the results of the Pearson correlation analysis conducted to determine the correlations between the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey are presented. As a result of the analysis, it was concluded that there is a positive and significant correlation between the image of Turkey, attitudes towards Turkish series and the effect of Turkish series on a visit to Turkey ($p < 0.05$). In other words, with improving attitudes towards Turkish series, the image of Turkey and the effect of Turkish series on a visit to Turkey also improve.

Table 15. Effect of Turkish Series on the Image of Turkey

Model Dependent Variable: Image of Turkey	Non-standardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Deviation	Beta		
(Constant)	3.234	.085		38.126	.000
Attitudes towards Turkish Series	.266	.024	.448	11.188	.000
Sig.	0.000				
F	125.167				
R ²	0.199				

With the regression analysis shown in Table 15, the effect of the attitudes towards Turkish series on the image of Turkey was revealed. As a result of the regression analysis, the attitudes towards Turkish series were found to have a significant effect on the image of Turkey. In other words, with improving attitudes towards Turkish series,

the image of Turkey also improves. 19.9% of the total variance in the image of Turkey is explained by the attitudes towards Turkish series.

Table 16. Effect of Turkish Series on Holiday Image

Model Dependent Variable: Holiday Image	Non-standardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Deviation	Beta		
(Constant)	3.396	.089		38.060	.000
Attitudes towards Turkish Series	.235	.025	.388	9.395	.000
Sig.	0.000				
F	88.272				
R ²	0.149				

With the regression analysis shown in Table 16, the effect of the attitudes towards Turkish series on the holiday image was revealed. As a result of the regression analysis, the attitudes towards Turkish series were found to have a significant effect on the holiday image. In other words, with improving attitudes towards Turkish series, the holiday image also improves. 14.9% of the total variance in the holiday image is explained by the attitudes towards Turkish series.

Table 17. Effect of Turkish Series on General Image

Model Dependent Variable: General Image	Non-standardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Deviation	Beta		
(Constant)	2.909	.089		32.563	.000
Attitudes towards Turkish Series	.328	.025	.506	13.097	.000
Sig.	0.000				
F	171.532				
R ²	0.255				

With the regression analysis shown in Table 17, the effect of the attitudes towards Turkish series on the general image was revealed. As a result of the regression analysis, the attitudes towards Turkish series were found to have a significant effect on the general image. In other words, with the improving attitudes towards Turkish series, the general image also improves. 26.5% of the total variance in the general image is explained by the attitudes towards Turkish series.

Table 18. Effect of Turkish Series on a Visit to Turkey

Model Dependent Variable: Attitudes towards Turkish Series	Non-standardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Deviation	Beta		
(Constant)	1.728	.122		14.211	.000
Effect of Turkish Series	.544	.034	.582	15.957	.000
Sig.	0.000				
F	254.632				
R ²	0.337				

With the regression analysis shown in Table 18, the effect of Turkish series on a visit to Turkey was revealed. As a result of the regression analysis, Turkish series were found to have a significant effect on a visit to Turkey. In

other words, with improving attitudes towards Turkish series, the tendency to visit Turkey also increases. 33.7% of the total variance in the intention to visit Turkey is explained by the attitudes towards Turkish series.

5.RESULTS AND SUGGESTIONS

Turkish series which have a large audience in the four corners of the world, from the Middle East to the Balkans, from Europe to Latin America and to Central Asia is one of Turkey's most influential soft power tools. Turkey ranks second after America in exporting series to the world. It is aimed to increase the annual income obtained from the export of TV series to 156 countries to 1 billion dollars in 2023. Export of Turkish series is an issue that includes many dynamics. Along with the series that are exported, many intangible and tangible values such as Turkish culture, customs, traditions, language, art, music, food, fashion, city, region, architecture, and local brands are also exported. In this way, local productions turn into the most important means of exporting Turkish culture. The return of cultural export, which is applied as the marketing of social life style and cultural accumulation, is more profitable and permanent in the long term than the marketing of industrial products. Turkish TV series have increased the interest in Turkish brands and thus allowed Turkish companies to penetrate into the markets of the countries where they have been broadcast more easily and they and led to increasing admiration for Turkey and this admiration has naturally turned into a desire to visit the country. Especially middle and upper-class tourists coming from oil-rich countries in the Arab geography have made important contributions to the Turkish economy with their high spending capacities.

In the current study, the attitudes of Arab people towards Turkish series, their perceptions of the image of Turkey and the effect of these attitudes and perceptions on a visit to Turkey were investigated. Moreover, it was explored whether Arab tourists' attitudes towards Turkish series and perceptions of the image of Turkey varied significantly depending on some demographic variables such as gender, age, income level, education level and marital status. To this end, a questionnaire was administered to 500 Arab tourists visiting Turkey.

As a result of the analyses conducted, it was concluded that the mean scores taken from the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey varied significantly depending on gender. In other words, the male Arab tourists have more positive attitudes towards Turkish series and a greater tendency to visit Turkey than the female Arab tourists.

Moreover, the mean scores taken from the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey were found to be varying significantly depending on whether following Turkish actors and actresses in social media. In other words, the mean scores of the Arab tourists following Turkish actors and actresses in social media taken from the Scale of the Image of Turkey, the Turkish Series Attitude Scale and the Scale of the Effect of Turkish Series on a visit to Turkey are significantly higher than those of the Arab tourists not following them in social media. In addition to this, it was also found that with the increasing level of education of the Arab tourists, their attitudes towards Turkish series and image of Turkey were found to be improving.

Another important finding of the study is that there is a positive and significant correlation between the attitudes towards Turkish series and the image of Turkey and the effect of Turkish series on a visit to Turkey. In other words, watching Turkish series positively affects Arab tourists' intention to visit Turkey. Thus, it can be argued that with the improving attitudes of Arab tourists towards Turkish series, their image of Turkey improves and their intention of visiting the country increases as well.

In this context, TV series that will contribute to the promotion of national culture should be supported, the success already achieved should be preserved, the international competitiveness of the cinema sector should be increased, and research that will contribute to these issues should be conducted.

In the current study, the effect of Arab people's attitudes towards Turkish series and perceptions of the image of Turkey on their intention to visit Turkey was revealed. In this context, one limitation of the study is that it was conducted on 500 Arab tourists visiting Antalya and İstanbul. Moreover, time, method and calculation-related mistakes that can occur in any questionnaire study may have occurred in the current study. Similar research can be conducted on different samples and then the results can be compared with the results of the current study.

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APPENDIX

INVESTIGATION OF THE EFFECT OF TURKISH SERIES ON ARAB TOURISTS' PREFERENCE FOR VISITING TURKEY

دراسة أثر المسلسلات التركية على قدوم السياح العرب الى تركيا

The current survey is conducted within the context of a master's thesis. Your responses will only be used for scientific purposes not for any other purpose. We thank you for your participation.

نود إعلامكم بأننا نقوم بهذا الاستبيان من أجل رسالة الماجستير. وبالتالي فإن إجاباتكم سيتم استخدامها لأهداف علمية بحتة ولن تستخدم خارج نطاق هذا الاستبيان. وقبل أن نبدأ أشكركم شكرا جزيلاً على مساهمتكم تلك، ولكم مني فائق الاحترام والتقدير لمشاركتكم في هذه الدراسة.

1. Gender: () Female () Male
1. الجنس: () أنثى () نكر
2. Age:.....
2. العمر
3. Marital status: () Married () Single
3. الحالة المدنية: () متزوج () عازب
4. Education level: () Elementary education and lower () High school () Associate's degree () Undergraduate degree () Graduate degree
4. المستوى التعليمي: () ابتدائي () ثانوية وما دون () معهد () جامعة () ماجستير
5. The total income of your family in \$
5. مجموع الدخل العائلي شهريا بقيمة الدولار
6. What is your frequency of having visited Turkey before?
() First time () Second time () Third time () Fourth time and more
6. عدد المرات التي قدمتم فيها إلى تركيا؟
() مرة واحدة () مرتين () ثلاث مرات () أربع مرات وما فوق
7. What is your frequency of following Turkish series?
() Never () Once a month () Once a week
() More than once a week () Everyday
7. كم مرة في العادة تتابعون المسلسلات التركية؟
() أبداً () مرة في الشهر () مرة في الأسبوع () مرة وما فوق في الأسبوع () مرة في اليوم
8. Do you follow the actors and actresses having appeared in Turkish series in social media?
() Yes (Who do you follow)
() No
8. هل تتابعون أخبار الفنانين في تركيا على مواقع التواصل الاجتماعي؟
نعم () (إذا كان الجواب نعم، فمن تتابعون؟.....)
لا ()
9. Have many Turkish series have you watched from the beginning to the end so far?
() None () 1 () 2 () 3 () 4 and more
9. كم مسلسل تركي شاهدتموه كاملاً إلى الآن؟
() أبداً () واحد () اثنين () ثلاثة () أربع وما فوق
10. Which country did you come from?.....
10. من أي البلاد قدمتم؟.....
11. Why did you come? (You can mark more than one option)
() Touristic () Business () Education () Others.....
11. سبب القدوم؟ (يمكنكم تظليل أكثر من خيار)
السياحة () العمل () التعليم () أسباب أخرى ()
12. What are the Turkish series you like the most?.....
12. ما هو أكثر مسلسل تركي تحبون؟.....

INVESTIGATION OF THE EFFECT OF TURKISH SERIES ON ARAB TOURISTS' PREFERENCE FOR VISITING TURKEY

دراسة أثر المسلسلات التركية على قدوم السياح العرب الى تركيا

Strongly Agree أوافق بالتاكيد	Agree أوافق	Undecided لست متأكدا	Disagree لا أوافق	Strongly Disagree لا أوافق أبدا	Turkish Series Attitude Scale درجة التعلق بالمسلسلات التركية
					I like Turkish series. أحب المسلسلات التركية.
					I find Turkish series qualified. أجد المسلسلات التركية ذات نوعية عالية.
					I like Turkish series actors and actresses. أنا معجب بالمثلين الأتراك.
					I like watching Turkish series. أستمتع بمشاهدة المسلسلات التركية.
					I like the places and settings where Turkish series are filmed. أنا معجب بالديكور والأماكن التي يتم فيها تصوير المسلسلات التركية.
					I think that the quality of actors and actresses in Turkish series is good. أظن أن الممثلين الأتراك ذات كفاءة عالية.
					I like the story and scenario of Turkish series. أنا معجب بسيناريو و نص المسلسلات التركية.
					I like the costumes and accessories used by actors and actresses (hair, make-up, jewellery, etc.). أنا معجب بلباس الممثلين الأتراك وأدوات الزينة لديهم (الشعر، المكياج، حُلِي الخ..).

INVESTIGATION OF THE EFFECT OF TURKISH SERIES ON ARAB TOURISTS' PREFERENCE FOR VISITING TURKEY

دراسة أثر المسلسلات التركية على قدوم السياح العرب الى تركيا

Strongly Agree أوافق بالتاكيد	Agree أوافق	Undecided لمست متأكدا	Disagree لا أوافق	Strongly Disagree لا أوافق أبدا	Scale of the Image of Turkey مقدار الإنطباع الذهني عن تركيا
					Turkey is a nice country to have a holiday. بلد رائع لقضاء العطلة.
					Turkey is a nice country to be away from stress, to rest and to relax. مكان مناسب للاستجمام والاستراحة و للهروب من الضغوط النفسية.
					I think Turkey is an exciting country. أعتقد أن تركيا مكان ذو إثارة.
					Accommodation facilities are highly convenient. مكان جيد للغاية لإمكانية الإقامة.
					Tourism infrastructure is sufficient. البنية التحتية السياحية فيها كافية.
					Turkish people are friendly and sincere. الشعب صدوق وحنون.
					Weather conditions are suitable for a nice holiday. الطقس فيها ملائم لقضاء العطلة.
					It has unique sceneries and different natural beauties. جمالها الطبيعي مختلف ومناظرها الخلابة لا مثيل لها.
					Its local food is delicious. أطعمتها المحلية لذيذة.
					It is a nice place to explore a new culture. مكان جميل للكشف عن ثقافة مختلفة.
					It has interesting historical places. فيها أماكن تاريخية مثيرة للاهتمام.
					It offers attractive shopping opportunities. إمكانيات التسوق لديها جذابة.
					Its general environmental conditions are in good compliance with hygiene standards. شروط البيئة العامة موافقة لمعايير النظافة والحفاظ على الصحة.
					Accommodation facilities are in good compliance with hygiene standards. مرافق الإقامة موافقة لمعايير النظافة.
					It has a positive image. تُكوّن عندك انطباعات ذهنية إيجابية.
					It is respectful to human rights. تحترم حقوق الإنسان.
					Security is high. تتميز باستتباب الأمن فيها.
					It is a secular country. دولة علمانية.
					It is a country of tolerance. دولة التسامح.
					Its technological infrastructure is sufficient. بنيتها التحتية والفوقية والتكنولوجية كافية.
					It is a modern country. دولة معاصرة.

INVESTIGATION OF THE EFFECT OF TURKISH SERIES ON ARAB TOURISTS' PREFERENCE FOR VISITING TURKEY

دراسة أثر المسلسلات التركية على قدوم السياح العرب الى تركيا

Strongly Agree أوافق بالتاكيد	Agree أوافق	Undecided لمست متاكدا	Disagree لا أوافق	Strongly Disagree لا أوافق أبدا	Scale of Effect of Turkish Series درجة تأثير المسلسلات التركية
					The fact that I follow Turkish series is influential on my visit to the country. متابعتي للمسلسلات التركية أثرت على زيارتي لتركيا.
					The fact that Turkish series are quality is influential on my visit to the country. جودة المسلسلات التركية أثرت على زيارتي لتركيا.
					The fact that I like Turkish series is influential on my visit to Turkey. شغفي بالمسلسلات التركية أثر على زيارتي لتركيا.
					The fact that I like Turkish series actors and actresses is influential on my visit to the country. شغفي بالممثلين الأتراك أثر على زيارتي لتركيا.
					The fact that I like the costumes and accessories worn by Turkish series actors and actresses is influential on my visit to the country. إعجابي بلباس وزينة الممثلين الأتراك أثرتا على زيارتي لتركيا.
					The fact that I like the settings where Turkish series are filmed is influential on my visit to the country. إعجابي بالديكور والأماكن التي يتم فيها تصوير المسلسلات التركية أثر على زيارتي لتركيا.
					The popularity of Turkish series is influential on my visit to the country شهرة المسلسلات التركية أثرت على زيارتي لتركيا.
					Advertisements and promotion of Turkish series are influential on my visit to the country. الإعلانات التي يتم ترويجها للمسلسلات التركية أثرت على زيارتي لتركيا.

Investigating the Effect of Advertising on the Perception of the Target Audience with the CAPI Technique

Reklamın Hedef Kitle Algısına Etkisinin CAPI Tekniđi ile Arařtırılması

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ABSTRACT

Keywords:

Advertisement,

CAPI Technique,

Target Audience Perception

By creating brand awareness and marketing strategies with effective advertising practices, the effect of advertising on consumer perception can be understood. The aim of the study, which is built on this understanding, is to examine the advertisement film used in the marketing and promotion activities of a hotel business operating in the tourism sector with the CAPI technique. From this point of view, the research was implemented in three big cities, namely Istanbul, Izmir and Ankara. As a result of the field research, 150 meaningful data could be obtained due to the limitations such as the face-to-face application and the time-consuming nature of CAPI and narrowing of the criteria for those who will participate in the survey under the effect of the pandemic conditions. The data were subjected to the SPSS 20 program. As a result of the statistical analysis, it has been determined that the advertisement appeals to consumer emotions.

ÖZET

Anahtar Kelimeler:

Reklam,

CAPI Tekniđi,

Hedef Kitle Algısı

Etkili reklam uygulamaları ile marka bilinirliđi ve pazarlama stratejileri oluşturularak, reklamın tüketici algısı üzerindeki etkisi anlaşılabilir. Bu anlayış üzerine inşa edilen çalışmanın amacı, turizm sektöründe faaliyet gösteren bir otel işletmesinin pazarlama ve tanıtım faaliyetlerinde kullandığı reklam filmini CAPI tekniđi ile incelemektir. Bu noktadan hareketle araştırma İstanbul, İzmir ve Ankara olmak üzere üç büyük şehirde gerçekleştirilmiştir. Alan araştırması sonucunda, CAPI'nin yüz yüze uygulanması ve zaman alıcı olması gibi sınırlılıklar ve ankete katılacak olanlar için pandemic koşullarından dolayı kriterlerin daraltılması nedeniyle 150 anlamlı veri elde edilebilmiştir. Veriler SPSS 20 programına tabi tutuldu. İstatistiksel analiz sonucunda reklamın tüketici duygularına hitap ettiđi tespit edilmiştir.

1. INTRODUCTION

In a brutal competitive environment, the success of the firm largely depends on how professionally the marketing communication elements are used. In this respect, advertising has a very critical role in achieving the stated goal. This is the productive part of the issue. However, the consumer side should definitely be emphasized, because all these and similar efforts by the producers are to convince the consumers. In order for consumers to realize a purchase behavior, they must be aware of the product. Therefore, ensuring that the consumer has this information during the purchasing process will accelerate the process in question and ensure the realization of the purchasing behavior (Tayfur, 2010). In this respect, it can be said that advertising is a powerful promotional weapon used in the field of marketing (Steel, 2000).

In the field of tourism, marketing communication tools have critical importance in determining the marketing strategy and consumer needs and demands. In addition, sensitivity to commercial advertisements (Koenigs & Tranel, 2007) affects consumers' purchasing decisions (Bargh, 2002; Shrum et al, 2012). This situation is of greater importance for service businesses, and hotels have a serious influence among service businesses as a matter of fact. Service businesses need more image factors than businesses in the manufacturing sector. The main reason for this is that the companies in the service sector have relatively little opportunity to benefit from the visuals of their products in order to differentiate themselves from their competitors, increase their popularity and be preferred. The advertising factor comes to the fore in meeting this argument that service businesses are lacking. However, one of the two main difficulties experienced at this point is the cost of advertising expenditures; The other is that the rate of companies creating effective advertisements is statistically low. The shortcomings of classical research methods due to their cult characteristics, at the point of revealing the effectiveness of advertising, the level of interest of the advertisements in the target consumer group and whether they can establish the right communication with them, have led to the emergence of new techniques thanks to the radical developments in technology. The CAPI technique, on the other hand, emerged as a technique that eventually embodied these evolutions. With the development of computer-assisted interview systems, the computerized form of face-to-face interviews is called computer-assisted personal interviews (CAPI). When evaluated from a general perspective, it is a system that enables the compilation of data by using computer-assisted, registered question forms and conducting the survey face-to-face via computer (Ventura, 2003).

This study is expected to contribute to the literature in terms of both researching the effectiveness of advertising in hotel businesses and using a different technique in the field of marketing such as CAPI. Because in the literature, the number of studies conducted to investigate the advertisement with the CAPI technique is limited. The study is also important in terms of filling this gap. In this context, in the study, the commercial ad film used in the marketing and promotion activities of a hotel business operating in the tourism sector was examined with the help of the CAPI technique. The research was carried out in three big cities, namely Istanbul, Izmir and Ankara. As a result of the field research, 150 meaningful data could be obtained due to the limitations such as the face-to-face application of CAPI and the time consuming and narrowing of the scope of the criteria sought for those who will participate in the survey because of pandemic conditions. The data were subjected to the SPSS 20 program. As a result of the statistical analysis, it has been determined that the advertisement appeals to consumer emotions. In future studies, conducting the research with more samples and using different techniques and analyzes, both qualitative and quantitative, will enable to reach different results.

The study continues with a literature review after the introduction. The third part is the material and method. In this section, the purpose, importance, universe, and sample of the research are included. In the following section, the findings obtained through statistical analysis are given. In the fifth chapter, the conclusion and discussion, there are both general evaluations, limitations and administrative practices. (Düzenlendi)Orijinali geri yükle

2. LITERATURE REVIEW

Researchers have dealt with advertising in many dimensions and included various definitions. According to Classer (1972), advertising is the actions taken to present a message about a good or service to the market units verbally or visually. McLuhan (2005) claims that advertising is 20th century cave art. Cohen (2015) defines it as the promotion of the advertiser in mass media in a way that provides credible communication to achieve its goals (Richards and Curran, 2002). Jefkins (2000) says that advertising is the tool that makes known what we have to buy or sell. Foster (1997) stated that "Advertising is not a science, it is a work of persuasion and persuasion is an art". Tikveş (2005) describes it as a mass and paid sales effort conveyed by the marketer to the units embodying a particular market.

Advertising in hospitality business is the name given to a collection of different marketing techniques used to promote a hotel and its services. In general, the main purpose behind advertising for hospitality businesses is to portray the business in a positive way and connect with the target audience in a way that makes them more likely to become a paying customer. Advertising is often persuasive in nature, tends to target an audience rather than individuals, and aims to deliver improvements in business results in the short term or long term. This is why advertisements are one of the most important ways for hospitality businesses to generate interest and promote their unique offers. Advertising is also one of the elements of the promotion mix (Kotler et al., 2003). Advertising in the hospitality business is the promotion of an accommodation business and its services to consumers and buyers in the target market through mass media for a fee (Bltyhe, 2001)

Since the main purpose behind the advertising strategies of accommodation businesses is to create more business, it is possible for many businesses to follow their branding goals, create customer awareness, communicate their values, and emphasize their qualities, and ultimately communicate with the target audience and create sympathy and customer headlines through advertising activities. Advertising is one of the main ways hospitality businesses stand out from their competitors and communicate their unique selling points. A successful advertisement will also encourage customer loyalty. Hospitality businesses and destination advertising play an important role as a source of communication for both passengers and destination managers. Business managers often rely on their advertisements to attract tourists who tend to plan their itineraries around such advertisements. Destination advertising has the potential to successfully increase tourist demand (Byun & Jang, 2015).

With the development of computer-assisted interview systems, the computerized form of face-to-face interviews is called computer-assisted personal interviews (CAPI). This system enables the compilation of data by making face-to-face questionnaires via computer using supported questionnaires saved on the computer. It refers to the collection of survey data by a computer user to administer the survey and a face-to-face interviewer who computerizes the answers. This interview technique is a relatively new development in survey research, made possible by the personal computer revolution. In other words, it is a blended and advanced version of the classical survey method with technology. This method has some advantages over the traditional survey method. Routing problems in the survey are eliminated. Interviewers cannot miss questions or ask the wrong questions. Questions can be customized correctly. Mathematical calculations can be made within the program. The program checks for unacceptable or inconsistent responses and errors caused by different data entry are eliminated. Moreover, images can be included in the survey in a rich and colorful way, allowing videos to be added and watched. CAPI practitioners can control whether the participants watch the visuals and prevent memorized answers. Today's popular techniques such as Computer-Assisted Telephone Interviewing (CATI) and Computer-Assisted Personnel Interviewing (CAPI) will be used more frequently as their superior aspects are adopted compared to traditional questionnaire preparation (Ventura, 2003).

Ahmed and Ashfaq (2013) revealed that a creative and well-executed advertisement always has a great influence on consumers' purchasing tendencies or purchasing behavior. According to Fatima and Lodhi (2015), advertisements are very effective in creating awareness among people, but fail to have strong perceptions in the consumer's mind. Rai (2013) built his work on two main objectives, namely the effect of advertising on purchasing behavior and consumer attitude formation. He concluded that advertisements affect purchasing behavior and consumer attitude not only in India but all over the world.

There are many studies in the literature to measure the effects of advertising in the tourism sector. Jones (1995) analyzed hundreds of ads along with advertisers' sales charts and concluded that the strongest ad campaigns could triple sales, while the weakest could contribute to a more than 50 percent drop in sales. Making a few observations about internal momentum, Jones (1995) concluded that as a brand's market share grows, its advertising expenditure tends to increase at a decreasing rate, and as the brand grows, its reputation with consumers increases. Therefore, brand awareness reduces the advertising and promotion costs of businesses (Uzkurt and Bölükbaşı, 2008).

3. MATERIALS AND METHOD

As a research methodology, this application has been compiled under several headings in this section. In the first stage, a general introduction of the company included in the research was made. Afterwards, why the subject was researched and what was aimed with the results obtained at the end of the research were discussed in the aim of the research. Contributions to the theory or the field of practice through research are mentioned in the importance part of the research. In the method part of the research, answers were sought to questions such as how the collected data were obtained, what is the scope and universe of the research, what kind of problems this information solved

and how it was used, which methods and techniques were used in this process. The resulting findings were also analyzed and interpreted.

3.1 Introduction of the Company Included in the Research

It is a luxury hotel with a total of 125 deluxe rooms, including Royal Suites, and 103 standard deluxe and 14 junior suites, 6 queen and 8 king suites in the other block, affiliated with a chain of 5-star group hotels operating in the tourism sector under Merit Royal brand name. It is established in two blocks operating on the Mediterranean coast in North Cyprus, it has 16 king suites, 32 queen suites, 4 junior suites, 71 standard deluxe rooms,

3.2 Research Problematic

Marketing research is critical in determining the marketing strategy and consumer needs and demands in the field of tourism. People are sensitive to commercial advertisements (Koenigs & Tranel, 2007), and the main purpose of all types of marketing is to influence consumers' purchasing decisions (Bargh, 2002; Shrum et al, 2012). In line with this information, answers to the following questions are sought:

How do consumers react to hotel advertising?

What do consumers pay attention to in hotel advertisements?

What results does the hotel advertisement show with CAPI, which is considered a classical quantitative research method on the basis of consumer reactions?

3.3 Purpose and Importance of the Research

This study is expected to contribute to the literature in terms of both researching the effectiveness of advertising in hotel businesses and using a different technique in the field of marketing, such as CAPI. Because in the literature, the number of studies conducted to investigate the advertisement with the CAPI technique is limited. This study is also important to fill this gap. In this context, in the study the commercial film used in the marketing and promotion activities of a hotel business operating in the tourism sector was examined with the help of the CAPI technique.

3.4 Research Method

In the research, CAPI (Computer Assisted Personnel Interviewing) method, which is a computer-assisted face-to-face interview technique, was used as a non-experimental method. With the development of computer-assisted interview systems, the computerized form of face-to-face interviews is called computer-assisted personal interviews (CAPI). It is a system that enables the data to be compiled by making face-to-face surveys via computer using supported questionnaires stored on the computer. It refers to the collection of survey data by a computer user to administer the survey and a face-to-face interviewer who computerizes the answers. This interview technique is a relatively new development in survey research, made possible by the personal computer revolution. This method has some advantages over the traditional survey method. Routing problems in the survey are eliminated. Interviewers cannot miss questions or ask the wrong questions. Questions can be customized correctly. Mathematical calculations can be made within the program.

The program checks for unacceptable or inconsistent responses and errors caused by different data entry are eliminated. Moreover, images can be included in the survey in a rich and colorful way, allowing videos to be added and watched. CAPI practitioners can control whether the participants watch the visuals and prevent memorized answers. Accordingly, the CAPI research was conducted in three big cities, namely Istanbul, Izmir and Ankara. As a result of the field research, 150 meaningful data could be reached due to the limitations such as the face-to-face application of CAPI and the time consuming and narrowing of the scope of the criteria sought for the people who will participate in the survey, completely due to the effect of the pandemic conditions. These data were analyzed with the SPSS 20 program.

4. RESULTS

In this section a quantitative research technique, computer-assisted personal interview method and the analysis and numerical results of its results were used in order to make general evaluations for hotels in Cyprus, for brand awareness, and evaluations for commercials. Since the Merit Royal Hotel, whose advertising effectiveness is being measured, is a 5-star hotel in Cyprus, the pre-criteria sought for the participants for the CAPI study were determined as follows:

-Those who travel to Cyprus and prefer 5-star hotels to stay

-Those who decide on their own choice of hotel

- Those who watch TV at least once a week

The demographic characteristics of the participants in this research, which aims to measure the effectiveness of Merit Royal Hotel's commercials on the basis of certain topics, are as follows:

Table 1. Demographic Characteristics of the Participants

Demographics	Percentage
Gender	
Female	50
Male	50
Total	100
Age	
20-35 years old	50
35-50 years old	50
Total	100
Marital status	
Single	65
married	35
Total	100
child ownership	
yes	36
no	64
Total	100
Province	
Ankara	20
Istanbul	60
Izmir	20
Total	100
Socioeconomic status	
EU	64
C1	36
Total	100
Frequency of going to Cyprus	
1 in a year	40
1 in two years	34
once a month	7
1 in 4-6 months	7
1 in 2-3 months	5
every 2 weeks	5
once a week	2
Total	100
TV viewing frequency	
Every day	63
Every other day	11
Twice a week or less	13
Once a week	13
Total	100

According to this table, 75 people corresponding to 50% of the 150 participants in the study were women; It is seen that 75 people, corresponding to the other 50%, are men. When the distribution of the participants in the

study by age is examined, it is seen that 50% of them are in the age range of 20-35, and 50% of them are in the age range of 35-50. According to these data, the average age is 35 years. It is seen in the table that 65% of the participants in the study are single and 35% are married. While 36% of the participants have children, it is seen that 64% do not have children. 60% of the participants are in Istanbul, 20% in İzmir and 20% in Ankara. According to the data in this table, where occupational groups are coded according to socioeconomic status, 64% of the participants have AB group occupations and 36% have C group occupations. When the frequency of going to Cyprus is examined, 40% of the participants once a year, 34% once every 2 years, 7% once a month, 7% once in 4-6 months, 5% every 2-3 months. It is seen that once a month, 5% of them travel to Cyprus once every 2 weeks and 2% of them once a week. 63% of the sample group participating in the study watch television every day, 11% watch television every other day, 13% watch television twice a week or less, and 13% watch television once a week.

4.1 Evaluations for Brand Awareness

The aim of this part of the research is to reveal the extent to which Merit Royal Hotel, differs as a brand among the 5-star hotels operating in Cyprus before the commercial film is watched. First of all, questions were asked to the participants in order to obtain general data on the recall of the hotels. "Can you tell me the first 5 hotels that come to your mind when you say Cyprus?" When the answers of the participants to the question were examined, it was determined that the Merit Royal Brand was in the first place in this list with a composite average of 40% first and secondary utterances. It is followed by Cratos Premium Hotel with an average of 29%, Elexus Hotel with an average of 23%, Limak Deluxe Hotel with an average of 20% and Noah's Ark Delux Hotel with an average of 9%. The rate of mentioning the name Merit Royal as the first brand was determined as 31%.

Table 2. Distribution of Brands Remembered Without Assistance

Brand name	Percentage
Merit Royal Hotel	40
Cratos Premium Hotel	29
Elexus Hotel	23
Limak Deluxe Hotel	20
Nuh'un Gemisi Deluxe Hotel	9

When the brands were asked to be remembered by using certain reminders for other brands that could not be remembered unaided, the Merit Royal brand was remembered by 85% and ranked first. Other assisted brands and their recall levels are given in the table below. During the assisted reminding, the participants were asked whether they remembered the commercials of these hotel brands. According to the answers received, the rate of remembering the commercials of the hotel brands and the recall rate of the brand's name are given in the table below.

Table 3. Distribution of Brands and Ads Recalled with Assistance

Brand	Recalling Percentage	Ad Recalling Percentage
Merit Royal Hotel	85	27
Limak Deluxe Hotel	70	8
Elexus Hotel	64	9
Cratos Premium Hotel	64	13
Golden Bay Beach Hotel	58	8
Kaya Palazzo Resort	55	7

As can be seen in this table, with an assisting reminder both the brand name and the commercial of Merit Royal Hotel were remembered at a higher rate than the others. The rate of users who stated that they remembered the commercial is 27%.

4.2 Evaluations on Accommodation Habits

When the respondents were asked for what purpose they usually stay in hotels in Cyprus, 79% of them stated that they stayed for holiday purposes and 21% of them stated that they stayed for business purposes.

Table 4. Reasons for Participants to Accommodate in Cyprus

Reason	Percentage
Holiday	79
Business	21
Total	100

In order to determine the hotels they prefer to accommodate in when they travel to Cyprus, the participants were asked to say the name of the Hotel they stay most frequently in Cyprus and the names of the other hotels they stayed in Cyprus. Accordingly, the rates of preference among the most frequently and other hotels are as follows:

Table 5. Distribution of Hotels Preferred for Accommodation in Cyprus

Brand	Most Frequent Accommodation Rate	Secondary Accommodation rate	Total Accommodation Rate
Nuh'un gemisi Deluxe Hotel	%6	%50	%56
Merit Royal Hotel	%30	%11	%41
Cratos Premium Hotel	%19	%17	%36
Elexus Hotel	%18	%9	%27
Limak Deluxe Hotel	%12	%11	%23

According to the data in the table, among the brands that the participants in the study preferred to stay in their past travels, the brand with the highest rate of total visitors was Noah's ship Deluxe Hotel with 56%. While Merit Royal Hotel is in the second place with a total accommodation rate of 41%, Cratos Premium Hotel is in the 3rd place with 36%. The rate of participants staying at Elexus Hotel is 27%. Limak Delux Hotel, on the other hand, ranks fifth with a total accommodation rate of 23%. Merit Royal Hotel ranks first with 30% in the most frequent accommodation rate.

When users were asked to rate their level of satisfaction with the hotel they stayed at over 10 points, 48% of them expressed an opinion in the range of 10-9 points, and 51% in the range of 8-7 points.

Table 6. Satisfaction with the Most Frequently Stayed Hotel

Satisfaction Level	Percentage
I am very satisfied (10-9 points)	48
I am satisfied (8-7 points)	51
I am neither satisfied nor not (6-5 points)	1
I am not satisfied (4-3 points)	0
Not at all satisfied (2-1 points)	0
Total	100

According to the table, the satisfaction level of the participants from the hotel they stay most frequently in Cyprus is quite high. The satisfaction level of the participants who stated that they stayed at Merit Royal Hotel was determined as 8.8 out of 10. The average satisfaction level of other Hotel customers was determined as 8.5 out of 10.

Table 7. Comparative Average Hotel Satisfaction Scores

Customer Type	Average satisfaction out of 10 points
Merit Royal Customers	8.8
Other Hotel Customers	8.5

According to these findings, the satisfaction average of the participants who stayed at the Merit Royal Hotel is slightly higher than the others.

4.3 Evaluations for the Advertising Film

The ad appreciation level grouped by demographic characteristics and the average appreciation scores are as follows:

Table 8. Level of Appreciation by Demographic Groups

By City	Average Score (out of 10)
Istanbul	8.4
Ankara	7.1
Izmir	8.2
By Gender	Score
Female	8.3
Male	7.9
By Age Group	Score
20-35	7,8
36-55	8,3
By Marital Status	Score
married	8,1
Single	8,1
According to the Status of Being a Hotel Customer	Score
Merit Royal Customers	8.5
Other Hotel Customers	7.8

According to this table, the participants in Istanbul and Izmir liked the commercial more than the participants in Ankara. On the basis of gender, the average score of appreciation of women is higher than that of men; female participants liked the ad more. Looking at the age groups, it is seen that the participants between the ages of 36-55 liked the advertisement more than the other participants.

Table 9. The Success of the Advertisement to Remind the Brand

Level of Ad Success	Percentage
A very successful commercial.	31
A highly successful commercial.	57
Not a very successful commercial.	5
This movie could have been for any hotel commercial	7
Total	100

The total ratio of the answers to “a very successful commercial film” and “a highly successful commercial film” is 88%; This high level reveals that the advertisement is successful in reminding the brand. However, the 12% of the participants who did not find the advertisement successful stated the reasons for this as being ordinary, clichéd, not descriptive, and the lack of Merit Royal emphasis.

Table 10. Distribution of Finding the Advertisement Different

	General	İstanbul	Ankara	İzmir	Female	Male	20-35	36-55	A	B	C1
Base	150	90	30	30	75	75	75	75	43	53	54
TB %	20	28	7	10	21	18	16	24	19	17	24
T2B %	74	79	63	71	69	79	63	85 (f)	70	74	78

A similar situation emerged according to gender. Accordingly, the level of finding the advertisement different in men is higher than in women. This situation, which continued according to age groups, resulted in the 36-55 age group finding the advertisement significantly different from the 20-35 age group.

The evaluations regarding the power of the advertisement to direct to the brand, which is another important element of the advertisement, are as follows:

Table 11. The Power of Advertising to Direct The Brand

Desire of Accommodation at Merit Royal Hotel after Ad	Percentage
I would definitely like to stay	42
I want to stay	49
I'm undecided	5
I don't want to stay	2
I definitely don't want to stay	2
Total	100

According to this table, which presents the findings about the extent to which users want to stay at Merit Royal Hotel after watching the commercial, 91% of the participants stated that they would like to stay. This high rate reveals that the advertisement is quite strong in directing the brand.

Considering the distribution of evaluations for the advertisement, significant differences were found between Ankara and Istanbul participants. Throughout the table, it is seen that Merit Royal customers approach the advertisement more positively than the customers staying in other hotels. Relevant data are detailed in the table below.

Table 12. Distribution of Evaluations for Advertising

Base		General	İstanbul	Ankara	İzmir	Female	Male	20-35	36-55	Married	Single	Merit Customer	Other Customer
		150	90	30	30	75	75	75	75	53	97	53	55
It is an advertisement that appeals to the upper segment.	T4B (%)	92	92	80	87	89	93	87	96	92	91	92	91
	Avr (/10)	8.7	8.8	8.2	8.8	8.6	8.8	8.5	8.9	8.9	8.6	8.9	8.6
It's an exciting ad. It is an ad that evokes a sense of happiness.	T4B (%)	88	87	80	100	85	91	82	95	94	85	60	61
	Avr (/10)	7.8	7.9	7.3	8.0	7.8	7.8	7.3	8.3	7.9	7.7	8.0	7.7
It's an attention-grabbing ad. It's a comforting ad.	T4B (%)	88	87	80	100	85	91	82	95	94	85	60	61
	Avr (/10)	7.8	7.9	7.3	8.0	7.8	7.8	7.3	8.3	7.9	7.7	8.0	7.7
It's a friendly ad. It is an exaggerated and meaningless advertisement.	T4B (%)	87	88	77	93	85	88	80	93	89	86	60	53
	Avr (/10)	8.0	8.2	7.2	8.2	8.1	7.9	7.7	8.3	8.0	8.0	8.2	7.9
It's a boring ad	T4B (%)	74	80	57	71	71	76	66	81	74	73	79	70
	Avr (/10)	7.4	7.9	6.4	7.1	7.5	7.4	7.1	7.8	7.4	7.5	7.7	7.2
It's a stressful ad.	T4B (%)	65	72	60	48	73	57	61	69	53	71	69	62
	Avr (/10)	7.2	7.7	6.5	6.5	7.6	6.9	6.9	7.5	6.9	7.4	7.5	7.0

Base		General	İstanbul	Ankara	İzmir	Female	Male	20-35	36-55	Married	Single	Merit Customer	Other Customer
		150	90	30	30	75	75	75	75	53	97	53	55
It's an annoying ad. It is an advertisement that appeals to the upper segment.	T4B (%)	20	27	17	3	23	17	25	15	13	23	26	16
	Avr (/10)	4.0	4.3	3.8	3.5	4.2	3.9	4.5	3.6	3.9	4.1	4.5	3.7
It's an exciting ad.	T4B (%)	13	18	7	3	11	14	16	9	4	17	18	9
	Avr (/10)	3.3	3.5	3.1	3.1	3.1	3.5	3.5	3.1	2.9	3.6	3.8	3.0
It is an ad that evokes a sense of happiness. It's an attention-grabbing ad.	T4B (%)	12	18	7	-	11	13	13	11	8	14	15	10
	Avr (/10)	3.2	3.5	3.1	2.7	3.2	3.3	3.5	3.0	3.0	3.4	3.6	3.0
It's a comforting ad.	T4B (%)	11	13	13	-	9	12	13	8	2	15	16	7
	Avr (/10)	3.0	3.0	2.9	2.8	2.7	3.2	3.1	2.8	2.4	3.3	3.4	2.6

According to the table, there are significant differences between the age group of 36-55 and 20-35 in terms of finding the advertisement exciting. The older age group finds the advertisement more exciting. In the same proposition, a similar situation exists between married and unmarried; married couples found the ad more exciting. It is seen that the participants in Ankara have a lower level of participation, especially in the positive propositions related to the advertisement, compared to the participants in Istanbul. It is a general inference that the older age group has higher participation in positive propositional statements among age groups. In general, advertising evoked more positive connotations in the upper age group than in the lower age group.

5. CONCLUSION and DISCUSSION

Advertising is also of great importance for hotel businesses; hotel advertisements play a preparatory role for potential customers to visit accommodation establishments. Businesses in the service sector need to differentiate themselves from their competitors, increase their awareness and be preferred. But advertising is an expensive process; moreover, making high-value investments in an advertisement or promotional image often does not guarantee success. The deficiencies of classical research methods due to their cult characteristics, at the point of revealing the effectiveness of advertising, the level of interest of the advertisements in the target consumer group and whether they can establish the right communication with them, paved the way for the emergence of neuromarketing as a discipline as a result of the revolutionary developments in technology combined with new searches. From this point of view, the effect of the advertisement film, which is used as a marketing and promotional tool by a hotel business, on the perception of the target audience has been tried to be revealed by using the CAPI technique.

When evaluating the results obtained using the CAPI technique; Considering the general appreciation of the advertisement, it is seen that approximately one out of every 2 people likes the advertisement very much. When we look at the T4B (top 4 box score) values, that is, the sum of the ratios of the highest four scale (10-9-8-7 points) values, it is seen that almost everyone likes the advertisement. Regardless of the sector, the fact that the T4B rate of likes is 90% indicates that the advertisement is highly liked. The advertisement promotes the hotel well and includes images about the hotel, giving the hotel's view, location, service quality, etc. It is thought to show general elements. It clearly gives the image of prestige and luxury it wants to give and conveys this image very clearly to the audience. In general, it is seen that the recall level of the advertisements in the hotel category is (25%). Among the participants, the movie-assisted recall rate of the Merit Royal commercial was 26%, the brand-assisted recall rate was 26%, the category-assisted recall rate was 15%, and the unaided recall rate was 15%. Merit Royal advertisement's unaided-category-assisted recall rate is low (15%) when evaluated on the basis of all participants; but this should be evaluated together with the formats of general advertisements in the sector and the concepts they embrace. The fact that 5-star hotel advertisements are based on similar concepts such as "luxury", "elite",

“sea, beach” causes consumers not to remember the same type of advertisements or to confuse brands. The fact that the advertisement was found to be different was also in the background compared to other titles in which it was successful due to these reasons. On the other hand, in this platform created by hotel ads, recall rates should not be considered as the only component in advertising effectiveness. Components such as being perceived correctly in terms of content, clear transmission of messages, directing to the hotel should be evaluated holistically with the rate of recall due to the synergy it will create. It is seen that the advertisement highlights the issues that lead to the hotel in its perceived messages and reasons for appreciation. It is noteworthy that the reasons for liking mostly include emotional expressions based on the senses. In this respect, it is possible to say that advertising appeals to consumer emotions. It has been observed that the advertisement has achieved its purpose by inspiring the desire of accommodation in the hotel .

These data confirm Lanseng's (2016) findings that there are a significant number of studies showing that the use of sexual attraction in advertisements can be attractive and entertaining. On the other hand, according to the CAPI findings, the unaided recall level of the advertisement was found to be 15%. The result that emerged at this point is compatible with Baker (1961) and Lachance et al.'s (1977) research, which stated that sexual attraction used in advertisements increases the attractiveness and admiration level of the advertisement but decreases the recall rate. However, the advertisement is generally of a nature that attracts the attention of the audience and keeps the audience's reaction awake. It has been determined that the advertisement creates a positive perception on the target consumer group.

As a result, Merit Royal advertisement is successful when it is considered on the basis of factors such as conveying the messages it wants to give to the consumer, directing them to the hotel, making the brand attractive and the advertisement being gripping. However, the fact that these factors are at a lower level in other brand customers is an important point to be considered.

5.1 Limitations and Future Research

As in any study, this study also has some limitations. In the study, the population and sample can be changed and increased quantitatively. The fact that the research coincided with the pandemic period caused serious difficulties in obtaining data. While more data could be accessed than in the normal period, the unexpected course of the process hindered this situation. In this respect, different results can be reached by changing the population and sample in future studies. Increasing the number of samples will also contribute to this difference.

The research was carried out in the tourism sector. High value-added contributions to the literature can be made with similar studies in the health sector, agriculture sector, pharmaceutical sector and industrial sector. In fact, the results to be obtained from the studies to be carried out in these different sectors can be compared with the research in the tourism sector, and the pros and cons can be revealed.

A quantitative method was adopted in this study. In future research, qualitative methods can be used as well as different quantitative methods. In particular, neuromarketing techniques, which have made a great impression in the field of marketing recently, can be utilized. More consistent results can be achieved with techniques such as eye tracking, eeg, pet, facial coding. And the results achieved can be demonstrated in comparison with traditional marketing techniques

5.2 Managerial Implications

The use of more modern techniques such as CAPI in the field of tourism can provide a significant advantage in creating applications that can create a strong competitive advantage, while providing the opportunity to have a specific and clear information about the desires and expectations of consumers in real time. The aim of marketing in the tourism context today should be to know and understand the customer, thus maximizing the harmonization of the offered product with the customer. At this point, the blending of traditional tourism marketing and modern techniques will help destination brand positioning, reaching new demands, effective price positioning, better knowing what potential visitors really want, understanding whether visitor preferences are rational and the role the brain plays in purchasing preferences and increased tourist satisfaction. It has the potential to contribute to the underlying perception of tourists' behavior to reach more realistic data on points such as their intention to revisit. Both confirmatory classical research results and primary data from experimental studies confirm this. At this point, it is essential for business professionals to take these outputs into account in the decisions they will make in their strategic marketing plans. In addition, making this achievement sustainable seems possible only with the integration of university-industry cooperation.

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The Effect of Organizational Culture on Supply Chain Integration and the Mediating Role of Environmental Uncertainty

Örgüt Kültürünün Tedarik Zinciri Entegrasyonuna Etkisi ve Çevresel Belirsizliğin Aracılık Rolü

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ABSTRACT

While companies are integrating into the business environment where organizational culture is effective, they cannot predict what the impact of the organizational culture will be and how to act in an unknown and changing environment. Thus, the mediating role of environmental uncertainty in the effect of organizational culture on supply chain integration will be determined in the current study. The model was tested with the structural equation model (SEM). The population of the study consists of manufacturing companies in the Free Zone and the Organized Industrial Zone in the City of Mersin. The study as a subject and sample is original. A total of 238 questionnaires were applied in the current study. As a result of the analysis, the effect of organizational culture on supply chain integration and the effect of environmental uncertainty on supply chain integration was found to be statistically significant. However, the effect of organizational culture on environmental uncertainty was found to be statistically insignificant.

ÖZET

Anahtar Kelimeler:

*Tedarik Zinciri
Entegrasyonu,*

Örgüt Kültürü

Çevresel Belirsizlik

Şirketler, örgüt kültürünün etkili olduğu iş ortamına entegre olurken, örgüt kültürünün etkisinin ne olacağını ve bilinmeyen ve değişen bir ortamda nasıl hareket edeceklerini kestirememektedirler. Bu noktada örgüt kültürünün tedarik zinciri entegrasyonuna etkisinde çevresel belirsizliğin aracılık rolü tespit edilecektir. Model yapısal eşitlik modeli (YEM) ile test edilmiştir. Çalışmanın evrenini Mersin ilinde Serbest Bölge ve Organize sanayi bölgesinde imalat firmaları oluşturmaktadır. Konu ve örneklem olarak çalışma orjinaldir. Bu çalışmada toplam 238 anket uygulanmıştır. Analiz sonucunda örgüt kültürünün tedarik zinciri entegrasyonu üzerindeki etkisi ile çevresel belirsizliğin tedarik zinciri entegrasyonu üzerindeki etkisi istatistiksel olarak anlamlı bulunmuştur. Ancak örgüt kültürünün çevresel belirsizlik üzerindeki etkisi istatistiksel olarak anlamsız bulunmuştur.

1. INTRODUCTION

Culture is the web of understandings, boundaries, common language, and shared expectations that the members of an organization embrace over time (Kim, 2011: 30). Culture is a powerful feature when it maintains and supports communication and facilitates organizational decision-making, control, collaboration, and fosters commitment in the organization (Bashah, 1989: 62). The function of culture is to construct meaning and reduce ambiguity by organizing experiences (Cooke and Rousseau, 1988: 247). In addition, culture influences the behaviour of the group as it consists of “a set of values and judgments” and determines “what is right and what is wrong, what is good and what is bad” (Şeşen et al., 2014: 95). Culture consists of elements that a random group learns over a period of time while solving “vital problems in the external environment and integration problems inside.” In fact, this process encompasses a “continuous behavioural, insightful and emotional” process (Akbaba, 2002: 6). Organizations have turned to new organizational forms and management approaches and new searches in order to quickly adapt to environmental changes. In this process, culture brings to the fore a new conceptual structure to be used in solving the problems that appear in the social domain (Ergün, 2007: 266).

Differences specific to the sector in which the organization is located affect the organizational culture and make the structures in the sector similar. The industrial sector in which the organization operates, the ideas it develops and its working principles determine its attitudes towards its customers, competitors and even governments. Managers continue to survive or produce with the strategies, structures and processes they develop in accordance with these (Özkalp, 1999: 437).

When both business life and the related literature are examined, it is seen that the concepts of organizational culture, supply chain integration and environmental uncertainty are becoming more important and the interest in these issues is increasing day by day. For this reason, it is important to examine the concepts of organizational culture and supply chain, their determinants, their effects and their relations with each other in terms of organizational life and success.

In the literature, there is not much research investigating the relationship between organizational culture and supply chain integration. There is also a relative lack of research on the impact of organizational culture in the operation management literature (McDermott and Stock, 1999: 521, Nahm et al., 2004: 580). The aim of the research is to examine the effect of organizational culture on supply chain integration and the effect of environmental uncertainty on supply chain integration. In this respect, a model was developed and hypotheses were tested with the structural equating model (SEM). In this connection, the research question of the study was set to be “Does organizational culture affect supply chain integration and firm performance?” The model, hypotheses, universe, reliability and validity analysis methodology of the research and the findings of the analysis were examined and, as an approach, the reliability and validity analysis of the general application was made after the pilot application.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

When the studies that scientifically investigate the relationship between organizational culture and supply chain integration are examined, it is seen that extremely competitive and dynamic market environment reveals the need for changes in organizational processes (Braunscheidel et al., 2010: 883; Cao et al., 2015: 25). Supply chain experts state that supply chain integration is a key factor in organizational improvements and the creation of sustainable competitive advantage (Cao et al., 2015: 36). Supply chain integration means reorganizing and linking the cultures of more than one company. Managers recognize that firms must not only optimize individual firm performance but also align operations with other channel partners to improve costs, delivery, service levels and performance (Braunscheidel et al., 2010: 884). Integration between channel partners includes major cultural changes such as building trust and eliminating negative behaviour to foster collaboration and partnerships between companies (Braunscheidel et al., 2010: 884). On the other hand, Lawrence and Lorsch (1986) define integration as the quality of cooperation between departments (as cited in Lee, 2001: 80).

Coordination of the supply chain is strategically important as new forms of organization have evolved and become unrestricted (Akyüz and Erkan, 2010: 5137). Supply chain integration is believed to be related to organizational culture and collaboration (Cao et al., 2015: 36). Relational view theorists point out that increased interaction among supply chain members improves the trust and relationship links that are critical to supplying chain integration (Johnson et al., 2014: 2).

Organizational culture is an intangible but ever-present reality that “provides meaning, direction, and the basis for action” (Oden, 1999: 68). Schein (1993) explained that organizational culture has a positive effect on behaviour, which is reflected in shared values and beliefs among the members of an organization (as cited in Porter, 2016:

5). Organizational culture influences internal behaviours such as knowledge sharing, ethical decision making, teamwork, and risk-taking (Porter, 2016: 6). Moreover, according to Cameron and Quinn (1999), organizational culture is divided into four different types that emerge when an axis with an internal focus on one end and external focus on the other crosses an axis with flexibility and dynamism on one end and stability and control on the other. In addition, Cameron and Quinn (1999) classified organizational culture into the types of Adhocracy, Clan, Hierarchy, and Market Culture and this classification was named as “Competitive Values Model”. Additionally, each of the types of organizational culture can contribute to the success of the firm, depending on the needs of the external environment and the strategic management of the organization (Acar, 2013: 11).”

Although integration is an important concept in supply chain management, it is not clear in the literature whether it is an activity, a process or the result of an organizational structure. Integration is the act of coordinating parts of the system to control it. Thus, supply chain integration refers to any measure taken to maintain control over the supply chain (Lee, 2001: 80). Güzel and Demirdöğen (2016: 364) say that integration is implemented in two parts as technological and logistics integration. According to the existing research, technological integration is defined as the remodelling process, new product creation and development, information sharing and transfer between any supplier and any buyer, while logistics integration requires cooperation and coordination in managing material and information flow throughout the supply chain (Vachon, 2003: 19). In the 1970s, the need for integration in the physical distribution of products was started to be voiced. In this direction, intense global competition has forced many organizations to form cooperative, mutually beneficial partnerships with suppliers and distributors (Wisner and Tan, 2000: 34).

Environmental uncertainty is a concept with different definitions in the literature such as complexity, variability and vulnerability (Kara and Kayis, 2004: 467). Environmental uncertainty poses a challenge for supply chains, and business leaders recognize that they must take action to manage it (Nagarajan et al., 2013: 785). Organizational theorists consider how companies should organize their structures to respond to uncertainty in the external environment. For example, Pagell and Krause emphasize the need for a more organizational structure as a firm’s environment becomes more complex and unpredictable (Pagell and Krause; 2004: 630). At the same time, much of the work in organizational theory deals with how firms should estimate environmental factors such as competitors, customers, and suppliers (Chang et al., 2002: 4767). In addition, decision theorists such as Knight (1921), Luce and Raiffa (1957) define uncertainty as situations where each outcome is a known probability and the likelihood of the result of any action against risk situations is not known (Duncan, 1972: 317).

Various authors have conceptualized and measured environmental uncertainty in different ways (Liao, 2006: 41). In this connection, Wernerfelt and Karnani (1987: 189) evaluated environmental uncertainty using four dimensions: demand, supply, competitive and external uncertainty. Process uncertainty refers to environmental uncertainties arising from supplier uncertainty, customer uncertainty, and control uncertainty (Liao, 2006: 41). According to Zhang et al. (2002: 562), uncertainty is related to customers, suppliers, technologies and competitors. Uncertainty can be such that it affects the decisions of firms in an industry individually or collectively (Wernerfelt and Karnani; 1987: 189).

Storey et al. (2005: 257) point out that organizational and behavioural barriers challenge supply chain initiatives and are a possible detriment to supply chain integration performance. Organizations may fail to meet their integration goals if there is no cultural harmony among channel members. It is important to understand that interaction is between an organization’s internal and external culture or organizational image. In other words, the perceptions of channel members are heavily influenced by the employees who manage business relationships (McAfee et al., 2002: 3). Internal organizational culture and external culture must be harmonized to ensure the effectiveness of supply chain integration (Porter, 2016: 6). Previous research has shown that collaboration and logistics integration is achieved within the boundaries of a business by connecting external suppliers, carrier partners and customers (Chen and Paulraj, 2004: 127).

Lin (2016) emphasizes that organizations are open systems and have to interact with the environment. In this connection, to survive, companies must make sound judgments about their environment and avoid costly mistakes. It is emphasized that although the environment has many features, the main point that can affect the reactions of companies is always the degree of uncertainty (Lin, 2006: 439). Many studies in organization theory deal with the issue of environmental uncertainty. In this context, most of these studies deal with the estimation of environmental factors such as competitors, customers and suppliers of firms (Chang et al., 2002: 4767). According to Tung (1979: 673), environmental uncertainty is defined as the rate of change or variability in the external environment of the organization, which primarily consists of customers, competitors, government regulations and labour unions. Ariöz and Yıldırım (2012: 173) define uncertainty as situations in which many different outcomes

of an option can occur in the decision-making process of businesses, but the probability of accomplishment of these different outcomes is unknown. Uncertainty, which affects the decision maker's view of the future and emerges as a surprise, can occur in three main ways: price uncertainty, technological uncertainty, and price-technology uncertainty. In light of the literature review, the hypotheses of the current study are worded as follows:

H₁: Organizational culture has a positive effect on supply chain integration.

H₂: Organizational culture has a negative impact on environmental uncertainty.

H₃: Environmental uncertainty has a negative impact on supply chain integration.

H₄: Environmental uncertainty has a mediating role in the effect of organizational culture on supply chain integration.

3. METHODOLOGY

The model was tested with the structural equation model (SEM). In the scales, it was expressed as a five-point likert, remaining true to the original structure. A total of 238 questionnaires were administered. The research was analyzed with SPSS and AMOS programs.

The structural scheme and hypotheses of the research model are given in Figure 1.

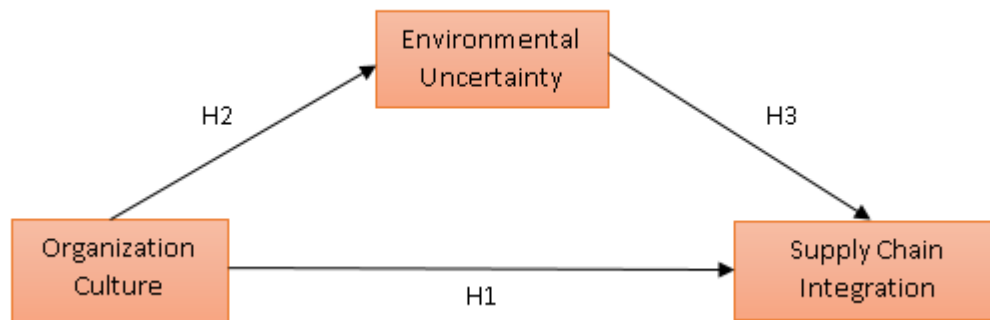


Figure 1. Structural scheme of the research model

Considering the principle that the research population should be similar in terms of field of activity and size, the population of the current study was determined as Mersin Free Zone and Mersin Organized Industrial Zone companies operating in the manufacturing sector in the city of Mersin. According to the framework and limitations of the study, it was deemed appropriate to have the sample size at the level of 95% confidence and 5% sensitivity. A total of 238 companies were administered a questionnaire. The simple random sampling method was used as the sampling method.

The data of the study were collected with the questionnaire method. The first part of the questionnaire included items to elicit information about the companies such as how long the firm has been operating, the number of employees, and the sector in which they operate. The second part of the questionnaire consists of scales related to the variables expressed in the research problem. The scales are in the form of a five-point Likert scale.

The scale developed by Cameron and Quinn (1999) was used to determine control flexibility and internal-external focus judgments in organizational culture. Çetindaş (2018) used a supply chain integration scale consisting of 14 questions from Wong, Boon-ittb and Wong, (2011) in his study of "The regulatory role of environmental uncertainty in the effect of supply chain integration on logistics performance in manufacturing enterprises". It was thought that the environmental uncertainty scale, which was prepared by making use of the study of Sreedevi and Saranga (2017), "Uncertainty and supply chain risk: Moderate role of supply chain flexibility in risk reduction" would be appropriate in this study.

4. FINDINGS

In this section, firstly, the reliability analysis information about the findings obtained in the research is given. After it was seen that the reliability and validity values of the scales used in the research were at the desired level,

the analysis of the research model was started. The first stage of the analysis is to determine that the research model meets the criteria of goodness of fit. At this stage, four criteria used in structural equation models were calculated and the findings were interpreted. After it was seen that the model met the criteria of goodness of fit, the findings obtained from the model were interpreted.

The Cronbach alpha coefficients for the scales and dimensions used in the questionnaire are given in Table 1. According to the findings obtained, it is seen that the reliability of the scales is high.

When the CFA findings for the structural validity of the scales used in the current study are examined in Table 1, it is seen that all the scales have acceptable goodness-of-fit values.

Table 1. The Cronbach Alpha Coefficients of the Scales Used in the Study and their Sub-Dimensions According to the Findings and CFA Findings for the Structural Validity of the Scales Used in the Study

Scales	CMIN/df	GFI	CFI	TLI	RMSEA	Number of Items	Cronbach Alpha
Critical Values	<5	<0.90	<0.90	<0.90	<0.08		
Organizational Culture	1.903	0.966	0.989	0.982	0.062	9	0.950
Environmental Uncertainty	2.052	0.973	0.983	0.971	0.067	6	0.848
Supply Chain Integration	1.983	0.945	0.983	0.973	0.064	12	0.937

The distribution of the participating companies across the sectors in which they operate is given in Table 2. According to the findings, 27.3% of the participating companies are companies operating in the food sector.

The distribution of the participating companies by capital structure is given in Table 2. According to the findings, 86.1% of the participating companies are companies with domestic capital, 10.1% with domestic-foreign partnerships and 3.8% with foreign capital.

The distribution of the participating companies according to the number of employees is given in Table 2. According to the findings, 60.9% of the participating companies have 1-50 employees, 19.3% have 51-100 employees and 19.7% have 101 or more employees.

The distribution of the participating companies according to how long they have been operating is given in Table 2. According to the findings, 22.3% of the participating companies have been operating for 1-5 years, 46.2% for 6-15 years and 31.5% for 16 years and more.

Table 2. Statistical Information about the Companies Participating in the Study

Sectors in which they operate	Number	Percentage
Food	65	27.3
Textile	33	13.9
Metal	24	10.1
Chemistry-Pharmaceutical	18	7.6
Others	98	41.1
Capital structure of the companies		
With domestic capital	205	86.1
Domestic-Foreign partnership	24	10.1
With foreign capital	9	3.8
Number of employees of the companies		

1-50 people	145	60.9
51-100 people	46	19.3
101 people and more	47	19.7
How long the companies have been operating		
1-5 years	53	22.3
6-15 years	110	46.2
16 years and more	75	31.5
Total	238	100

In the current study, the suitability of the scale and its sub-dimensions to the normal distribution was examined with the Q-Q plot method and it was decided that it was suitable for the normal distribution.

Table 3. Descriptive Statistics

Scales/dimensions	Mean	Std. Deviation	Skewness	Kurtosis
Control dimension	3.31	1.044	-0.006	-0.967
Internal-external control dimension	3.18	0.952	0.197	-0.728
Organizational culture	3.25	0.970	0.063	-0.933
Customer integration	3.16	0.857	0.131	-0.454
Internal integration	3.22	0.966	0.037	-0.774
Supplier integration	3.34	1.070	0.043	-1.029
Supply chain integration	3.24	0.852	0.116	-0.825
Environmental uncertainty	2.99	0.751	0.287	-0.507

The SEM model was established for the “Effect of Organizational Culture on Supply Chain Integration and the Mediating Role of Environmental Uncertainty”. The goodness-of-fit coefficients found for the model are given in Table 4. According to these values, the model satisfies the fit criteria.

Table 4. Goodness-of-Fit Coefficients for the SEM Model

Goodness-of-fit criterion	SEM goodness-of-fit coefficients
CMIN/DF	1,925
GFI	0,915
CFI	0,908
RMSEA	0,062

In the analysis of the research model, the findings regarding the mediating role of environmental uncertainty in the effect of organizational culture on supply chain integration are given in Table 5. According to the analysis,

the effect of organizational culture on the supply chain and the effect of environmental uncertainty on the supply chain was found to be statistically significant, but the effect of organizational culture on environmental uncertainty was found to be statistically insignificant. When the effect coefficients are examined, it is seen that the effect of organizational culture on supply chain integration is positive and high. According to the total effect coefficient, it is expected that 1 unit increase in organizational culture will lead to 0.973 unit increase in supply chain integration. It is seen that environmental uncertainty has a negative effect on the supply chain. Accordingly, it is expected that 1 unit increase in environmental uncertainty will cause 0.212 unit decrease in supply chain integration. Since the effect of organizational culture on environmental uncertainty was found to be statistically insignificant, it was not statistically accepted that environmental uncertainty had a mediating role in the effect of organizational culture on the supply chain.

Table 5. Investigation of the Mediating Role of Environmental Uncertainty in the Effect of Organizational Culture on Supply Chain Integration

		Supply chain integration	Environmental uncertainty
Direct effect	Organizational culture	0.963 (p=0.000)	-0.046 (p=0.103)
	Environmental uncertainty	-0.212 (p=0.001)	
Mediating effect		0.010	
	Environmental uncertainty		
Total effect	Organizational culture	0.973	-0.046
	Environmental uncertainty	-0.212	

According to these results, H1 and H3 hypotheses were accepted; H2 and H4 hypotheses were not accepted.

5. DISCUSSION AND CONCLUSION

In the current study, the mediating role of environmental uncertainty in the effect of organizational culture on supply chain integration was examined. The model design was made by assuming the mediating role of environmental uncertainty in the effect of organizational culture on supply chain integration (Lee et al., 2009; Yunus and Tadisina, 2016; Wong and Boon-itt, 2018).

The effect of organizational culture on supply chain integration and the effect of environmental uncertainty on supply chain integration was found to be statistically significant. However, the effect of organizational culture on environmental uncertainty was found to be statistically insignificant.

When evaluated in terms of the number of employees and the age of the firm, although there is no statistically significant difference in the perception of environmental uncertainty of the companies, it is seen that the perception of environmental uncertainty decreases as both the number of employees and the age of the firm increase. Considering that the items of the environmental uncertainty scale are negative, this result can be concluded as the number of employees and the age of the firms increase. It can be concluded that they are less affected by environmental uncertainty.

When the effect coefficients are examined, it is seen that the effect of organizational culture on supply chain integration is positive and high. It is expected that 1 unit of improvement in organizational culture will lead to 0.973 unit change in supply chain integration. On the other hand, environmental uncertainty is seen to have a negative effect on the supply chain. Accordingly, it is expected that 1 unit increase in environmental uncertainty will cause 0.212 unit decrease in supply chain integration.

In the current study, the structural model of the interaction between organizational culture, environmental uncertainty and supply chain integration, which have an important place in the field of organization management, was revealed. Both the model itself and the statistical significance of the model are important contributions to the literature.

When the study is evaluated in terms of the sector:

It was revealed that organizational culture and environmental uncertainties are effective parameters in developing supply chain integration, which is an important goal for the company. Especially the negative effect of environmental uncertainties and the high positive effect of organizational culture is a result that should be taken into account.

As can be seen in the study, the model is designed on the role of the mediator. Again, when the relevant literature is reviewed, it is seen that there are also variables that have a regulatory effect on organizational culture and supply chain integration. An important example of these variables is whether the firm is a family business or not (Yunus and Tadisina; 2016). A new dimension can be added to the research by adding variables that have a regulatory effect on the study model.

In this study, it has been revealed that organizational culture has a high effect on supply chain integration. When examined from this aspect, the development of organizational culture should be seen as a necessity in terms of supply chain integration.

Managers should consider the organization's attitudes and behavior patterns when creating decision strategy, plans and policies in the supply chain integration process. In addition, projects should be developed and trainings should be organized in order to be faithful to the organizational values created in a way that the organizational culture will react to change and technological development early and to ensure the sustainability of corporate success.

One of the remarkable findings of the study is the negative effect of environmental uncertainties on supply chain integration. Sector managers and policy makers taking measures in this regard, that is, developing practices that minimize environmental uncertainties, will improve supply chain integration.

The findings obtained within the scope of the study are limited to the Free Zone and Organized Industrial Zone in the city of Mersin. For this reason, analyzing the relationship between the variables that are the subject of the current study on different populations and comparing their results with the results of the current study can bring a broader perspective to the field of organizational culture and supply chain integration.

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