Chapter 6

Economic Growth Population and Cultural Economy in Türkiye

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Abstract

This research examines the relationship between economic growth, population and cinema culture in Türkiye. To determine the relationship between these variables, the time series analysis method was preferred. Based on the results of the unit root tests, the autoregressive distributed lag (ARDL) bounds test and the Toda-Yamamoto causality test were used in the analysis. The period between 1978 and 2023 was used as the analysis period. In this direction, according to the ARDL bounds test analysis results, no cointegration relationship was found between the variables. According to the results of the Toda-Yamamoto causality tests, a bidirectional causality relationship was found between the number of cinema audiences and the population growth rate in Türkiye. Likewise, a bidirectional causality relationship was found between growth and the number of cinema audiences. Finally, a unidirectional causality relationship was found from population growth rate to economic growth.

1. INTRODUCTION

Weber's "Protestant Ethics and the Spirit of Capitalism" is generally recognised as a work dealing with the relationship between religion and economic development. However, in a real sense, this work is implied as a work that contains the first research on the relationship between culture and economic growth. In fact, this work emphasises the beginning of a period when economic research began to ignore culture (Jong, 2015: 528). Therefore, when we look at the historical process, it is possible to say that population, economy and culture are affected by each other. The increase in population increases the labour supply as well as the number of consumers.

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While the increase in the number of consumers increases the demand for goods and services, it supports production and this can be a driving force for economic growth. Increasing income and welfare along with growth increases the demand for cultural goods and services as well as the demand for other goods and services.

In this framework, this study aims to empirically examine the relationship between economic growth, population and the number of cinema audiences in Türkiye between 1978 and 2023. Due to data limitations and the aim of creating common data, the limitations of the study are drawn within the boundary between 1978 and 2023.

Some studies on economic growth, population and cultural economy in the literature: Güneş (2005), Khan et al. (2010), Telatar & Terzi (2010), Shi et al. (2012), Erataş, Alptekin & Uysal (2013), Karakaş (2016), Uçan & Kaçar (2017), Polat (2018), Coşkun-Yılmaz (2023), Tiryaki & Ekinci (2023), Ajayi (2023), Leitao et al. (2023), Alarussi & Yen (2023), Chukwunonso (2024), Hasnawati et al. (2024), Alemu & Zegema (2024). These studies differ from each other in terms of the countries or country groups, variables and results obtained. The characteristics that distinguish this study from the studies in the literature: It is possible to list the characteristics that distinguish this study from the studies in the literature as follows: it is a Türkiye-specific study, the analysis period is unique and it differs from other studies in terms of the results obtained.

This research is designed as follows. The general framework of the study is outlined in the introduction in Section 1, and the theoretical foundations of economic growth, population and cultural economy are discussed in Section 2. Section 3 presents the existing literature. Section 4 presents the data and the empirical methods used. Section 5 presents the findings of the analyses and the interpretations of these findings, and finally, Section 6 presents conclusions and recommendations.

2. THEORETICAL BACKGROUND

2.1. Economic Growth

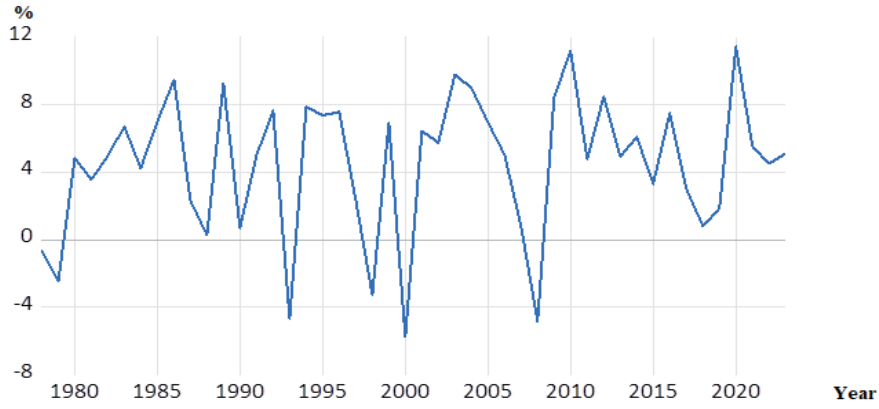
Economic growth is defined as the outward shift of the production possibilities curve and the increase in the potential gross domestic product (GDP) in the economy due to the increase in labour supply due to capital, technological progress and population growth. In other words, it is the achievement of sustainable increases in production volume and income in the long run within the limits of natural resources, population structure and institutional structures (Dikmen, 2022: 43-44).

One of the main economic policies of countries is to achieve the targeted growth in the economy. Of course, achieving this target is not enough. Because this target must also be sustainable. Therefore, with the achievement of sustainability in economic growth, there will be an increase in production and employment, as well as an increase in the income level of the society. Until the Industrial Revolution, the dominant sector in the global economy was agriculture. The industrial revolution was a turning point for production and mass production was rapidly introduced. In this process, countries that quickly adapted to the industrial revolution and industrialised have made significant progress in economic growth, while the economic growth and development rates of countries lagging behind in this process have progressed slowly (Sayar-Özkan & Çelik, 2018: 2).

It is possible to categorise the sectors that contribute to the growth of the economy into two categories: public and private sectors. However, it should be said that the shares and contributions of these sectors in economic growth vary from country to country (Çelik & Paksoy, 2021: 740). Today, although developed countries have reached their desired targets in economic growth, the desire to make this target sustainable, as well as the desire to improve the periodic growth level, continues. In most of the developing countries, including Türkiye, economic growth figures are not at the targeted levels and stability. Therefore, these countries are implementing various economic policies in order to reach their desired targets and achieve sustainability in economic growth (Dikmen, 2022: 43-44).

In this study, Türkiye's annual gross domestic product is used as an economic growth variable. In this framework, the time series graph showing the annual growth rate of Türkiye between 1978 and 2023 is given below.

Figure 1. Economic growth in Türkiye (1978-2023)



Source: The World Bank and Türkiye Statistical Institute

When we look at the time series graph of the economic growth rate of Türkiye, which is in the category of developing countries, between 1978 and 2023, it is possible to see that there is a serious fluctuation in the graph. These fluctuations show that Türkiye has not yet achieved stability in economic growth and this situation is unfavourable for sustainable growth. It is understood from the graph breaks in the years 1994, 1999, and 2001 national economic crises and 2008 global economic crisis that Türkiye's growth figures were adversely affected by national and international economic crises. In addition, it is possible to read from the graph that the foreign exchange shocks experienced in Türkiye in 2018 negatively affected economic growth.

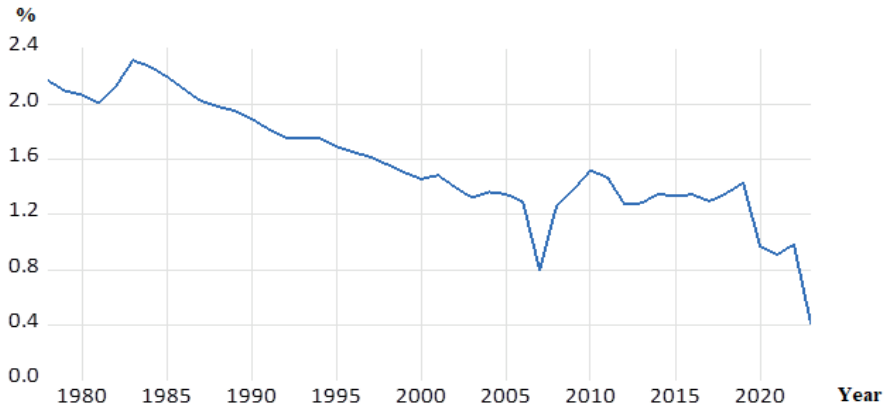
2.2. Population

Population growth rate is the increase in the number of people living in a country, region, city or town over time (Hasnawati, et al., 2024: 486). For nearly two centuries, population, economy and welfare have been a subject of debate for researchers. The starting point of these discussions is Thomas Malthus's 'An Essay on the Principles of Population' in 1798. In this work, Malthus stated that "population increases geometrically, but the products such as food etc. that people need to sustain their lives increase arithmetically". According to Malthus, the increase in population will cause the needs to reach unmet dimensions, and this situation will lead to various disasters. However, Malthus stated that this process has a self-control mechanism. As a matter of fact, if states do not activate this mechanism and take the population under control, after a certain level, population growth will lead to an increase in situations such as war, epidemics, disease, crime, poverty, and thus the population will control itself due to such reasons. The neo-classical economic approach, one of the leading representatives of contemporary economic thought, on the other hand, is of the view that capital variation and technological developments will make population growth no longer a problem and that population is even a positive driving force for the economy (Güneş, 2005: 124).

Population growth is important as a source of supply of labour, which is crucial for production. For example, in developed countries, where the population growth rate is extremely low, the problem of an "ageing society" arises and they are faced with labour force problems that strain their pension systems. On the other hand, most developing countries are experiencing rapid population growth that affects the economy. Development economists emphasise the relationship between economic development and population growth. The positive interaction between economic development and

population growth is important for developing countries as it promotes not only development but also welfare and living standards. This is because population growth is a driving force for competition in commercial activities and as the population increases, the active market expands. The expansion of the market means that entrepreneurs can expand their businesses as well as the opening of new investment areas (Konat & Fendoğlu, 2021: 281). In this study, Türkiye's annual population change rate is used as the population variable. In this framework, the time series graph showing the rate of population change in Türkiye between 1978 and 2023 is given below.

Figure 2. Türkiye's population growth rate (1978-2023)



Source: The World Bank

When the graph in Figure 2, which shows Türkiye's population growth rate between 1978 and 2023, is analysed, it is seen that Türkiye's population growth rate trend is generally decreasing. Here, it is understood from the graph that although Türkiye's population is constantly increasing, the rate of increase is decreasing.

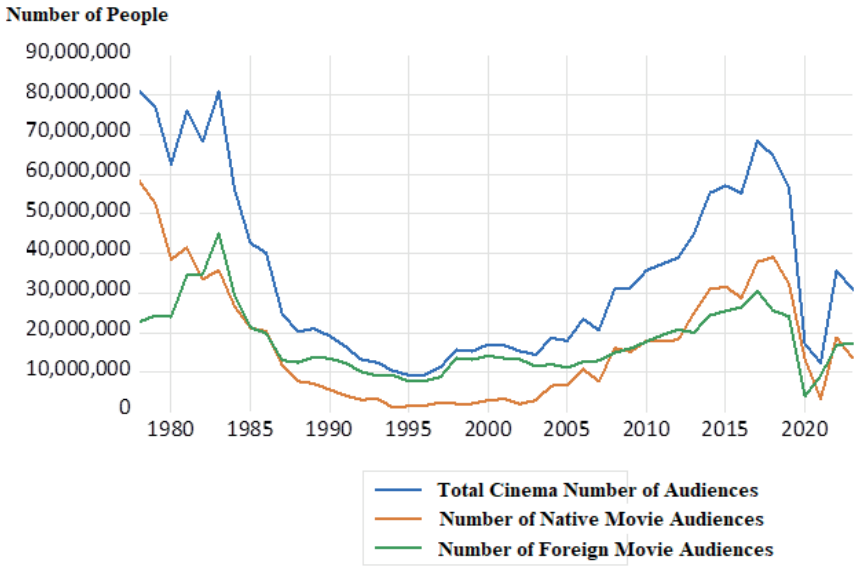
2.3. Cultural Economy

The cultural economy consists of the totality of cultural industries whose basic inputs are creativity and cultural labour and whose outputs are artistic and architectural works, events and cultural industries that bring together cultural buyers and sellers, protected by intellectual property rights. The categorisation of cultural activities as economic activities does not devalue culture; on the contrary, it expands the economic impact of culture from local to national and from national to international dimensions. In this direction,

it is possible to list the main fields of the cultural economy as follows: Publishing industry, film industry, visual publishing, music, performing arts, visual and plastic arts, museums, retail trade of cultural materials, architecture, design industry and modern creativity (Erataş, Alptekin and Uysal, 2013: 27-28).

The potential of cultural factors to influence economic growth and development has been the subject of considerable debate among academics and policy experts. However, economic theory, especially the neo-classical approach, does not take cultural factors into account in terms of development and economic growth. Instead, variables such as human and physical capital and technological development are considered as the main factors affecting growth and development regardless of the cultural environment. For this reason, the traditional economic understanding gives little attention to cultural factors when trying to find solutions to economic problems (Altman, 2001: 379-380). Recently, however, there have been significant changes in economic, social and technological fields. In particular, the emphasis on the concept of creativity has led to a better recognition of the pervasive role of cultural production in terms of creative industries and talent. In this process, revolutionary developments in digitalisation have changed the role of culture in production and consumption. In addition, the increase in prosperity and positive economic developments in regions outside the western regions have contributed to putting culture and heritage on the agenda of many developing countries (Bertacchini & Segre, 2016: 69). Defined as a cultural activity, cinema is one of the most important sectors in terms of cultural economy. Therefore, in this study, the total number of domestic and foreign cinema audiences in Türkiye is used to represent the cultural economy. The time series graph showing the number of domestic, foreign and total cinema audiences in Türkiye between 1978 and 2023 is given below.

Figure 3. Number of cinema audiences in Türkiye (1978-2023)



Source: Türkiye Statistical Institute 100th year basic indicators

When we look at Figure 3, it is seen that the direction of movement of the total number of cinema audiences and the number of domestic and foreign film audiences in Türkiye between 1978 and 2023 are generally similar. It is understood from the graph that the total number of film viewers in Türkiye was around 80 million people in the years before 1980, and this figure decreased to 10 million people in 1995 and 2000. One of the main reasons for this situation is the introduction of televisions in Türkiye at that time, the widespread use of film viewing devices in homes, other technological developments and the slow spread of the internet. These developments also paved the way for the emergence of the pirated film industry. The development of the film piracy sector has, of course, caused a decrease in the number of cinema audiences. The number of cinema viewers, which started to increase again after the 2000s, approached the figures in the 1980s until 2020 when Covid-19 broke out. It is also understood from the figure that the cinema sector, which experienced a sharp decline with Covid-19, has entered a recovery process again.

3. LITERATURE REVIEW

It is possible to list some of the studies on economic growth, population and cultural economy in the literature as follows. Güneş (2005), Khan et al.(2010), Telatar & Terzi (2010), Shi et al. (2012), Erataş, Alptekin &

Uysal (2013), Karakaş (2016), Uçan & Kaçar (2017), Polat (2018), Coşkun-Yılmaz (2023), Tiryaki & Ekinci (2023), Ajayi (2023), Leitao et al. (2023), Alarussi & Yen (2023), Chukwunonso (2024), Hasnawati et al. (2024), Alemu & Zegema (2024). Detailed summarized information about these studies is given below in a chronology from past to present.

Güneş (2005), who analyzed the population and growth variables of Türkiye between 1943-2003 using the time series method, observed that population has a short-term effect on economic growth, but the effect of economic growth on population is long-run. Khan et al. (2010), in their study of selected Asian countries for the period 1995-2007, found that respect and self-determination, which constitute a culture of trust, have a positive effect on economic growth. However, cultural attitudes related to obedience were found to have a negative relationship with economic growth. Telatar & Terzi (2010) analysed Türkiye's growth, population and education variables using the time series method for the period 1968-2006 and found a negative causality relationship from economic growth to population and a positive causality relationship towards higher education graduates. Shi et al. (2012), in a study of China between 1978-2008, show that Christian commercial culture has a positive impact on economic performance. In addition, it is observed that culture has a heterogeneous effect on economic development in different regions of China.

Erataş, Alptekin & Uysal (2013), in their study of the 1995-2011 period in Türkiye, observed that within the framework of the cultural economy, promising developments have been observed in the sub-sectors of performing arts, visual arts, plastic arts and film industry in Türkiye as a whole, in the Aegean region and in the Central Anatolia region. Karakaş (2016) analysed the population, carbon dioxide, and per capita welfare variables of 61 selected countries with different income structures between 1990-2013 using the panel data method. In the study, the population was found to be the cause of both per-capita welfare and carbon dioxide increase. It is also found that per capita welfare increases carbon emissions. Uçan & Kaçar (2017) analysed the variables of energy consumption, economic growth and population for Türkiye for the period 1980-2010 using the time series method. They found a unidirectional causality relationship between population and energy consumption and gross national product.

Polat (2018) analysed the economic growth and population variables in Türkiye and used the time series analysis method for the period 1998-2015. In this framework, it was observed that a causality relationship was found from population to growth. Coşkun-Yılmaz (2023) investigated the

relationship between GDP per capita and population growth in Türkiye for the period 1980-2021 using the time series method. In the study, a long-run causality relationship was found between population growth and GDP per capita. In this framework, it is concluded that population growth in Türkiye has a positive effect on GDP per capita. Tiryaki & Ekinci (2023) analysed Türkiye's population, economic growth, life expectancy, capital formation and inflation variables for the period 1968-2019 using time series method. In the study, it is observed that population affects economic growth negatively in the short run but positively in the long run. In addition, life expectancy and capital formation affect growth positively in the short and long run, while the effect of inflation is negative in the long run.

Ajayi (2023) analysed the effects of mineral rents, conflict and population growth on the economic growth of 13 selected countries in Sub-Saharan Africa from 1980-2022 using the panel data method. The study revealed the long-term negative effects of population growth rates and the prevalence of civil war on economic growth. Leitao et al. (2023) analysed the effects of the environmental Kuznets curve and the determinants of economic growth for the Visegrad countries between 1990-2018 using the panel data method. In the study, the relationship between urban population and foreign direct investment and economic growth is positive. Alarussi & Yen (2023) examined the impact of population ageing (demographic changes) on economic growth (measured by labour supply, household savings and labour productivity) in China, Japan and Malaysia using the panel data method for the period from 1990 to 2018. The findings show that as the population ages, the negative impact on the economy increases. In fact, it is observed that population ageing has a negative impact on the labour supply. In addition, the effect of population ageing on housing savings is negative in Japan and Malaysia and positive in China.

Chukwunonso (2024) analysed the impact of population growth and climate change on Nigeria's economic growth for the period 1981-2021 using the time series method. Cointegration relationship was found between all variables used in the analysis. In addition, it was found that population growth positively and significantly affects economic growth in the short and long run. On the other hand, climate change has a negative and insignificant effect on economic growth in the short and long run. Hasnawati et al. (2024) analysed the relationship between life expectancy at birth, carbon dioxide emissions, population growth and gross domestic product growth variables for the period 1950-2020 using the time series method in Indonesia. While a bidirectional causality relationship was found between life expectancy at birth and population growth, no causality relationship was found between gross

domestic product and population. Alemu & Zegema (2024) investigated the dynamic effect of population and economic growth in Ethiopia for the period 1991-2022 using the time series method. It is found that population growth has a more short-term positive impact on economic growth.

4. DATA SET AND METHOD

In this Türkiye-specific study, economic growth, total population and total number of cinema audience variables are considered. Due to the common data constraint, the analysis period started in 1978 and ended in 2023. Detailed information on these variables is given in Table 1.

Table 1. Data set and source

Variables	Explanation	Source
Growth	Annual % change rate of GDP	The World Bank Turkish Statistical Institute
Population	Annual % change	The World Bank
Cinema Audience	Logarithmic transformation of the sum of the number of domestic and foreign cinema film viewers	Turkish Statistical Institute 100th year basic indicators

Based on the results of the unit root tests, the autoregressive distributed lag (ARDL) bounds testing and the Toda-Yamamoto causality test were used as time series analysis methods.

ARDL bounds test is a time series estimation model developed to determine whether there is a cointegration relationship between variables. This model, developed by Pesaran, Shin, & Smith (2001), is an estimation model that can be used when the variables are stationary at different orders (Pesaran, Shin, & Smith, 2001). The ARDL bounds test estimation model for economic growth, population and cinema audince variables considered in this study is as in equation 1 below (Nazir, et al., 2018: 951):

$$\Delta \text{Cinema Audienc} = \beta_0 + \sum_{i=1}^{p} \beta_{1ik} \Delta Cinema\ Audience_{2t-i} + \sum_{i=0}^{p} \beta_2 \Delta \text{Growth}_{t-i} + \sum_{i=0}^{p} \beta_3 \Delta \text{Population}_{t-i} + \lambda_1 Cinema\ Audience_{2t-i} + \lambda_2 \text{Growth}_{t-i} + \lambda_3 \text{Population}_{t-i} + \varepsilon_t \quad (1)$$

Toda-Yamamoto (1995) causality test is a time series estimation model that analyses the causality relationship between variables. In this model, as in the ARDL bounds test, it can be applied to variables that are stationary at different orders (Toda & Yamamoto, 1995). The Toda-Yamamoto causality test estimation equations for economic growth, population and cinema attendance variables considered in this study are as follows (Sotiropoulou, 2023: 175):

$$\text{Growth}_{i,t} = \alpha_{1i} + \sum_{p=1}^{k+m} \beta_{1i,p} Growth_{i,t-p} + \sum_{p=1}^{k+m} \lambda_{1i,p} \text{Population}_{i,t-p} + \sum_{p=1}^{k+m} \&_{1i,p} \text{Cinema Audience}_{i,t-p} + \varepsilon_t \quad (2)$$

$$\text{Population}_{i,t} = \alpha_{2i} + \sum_{p=1}^{k+m} \beta_{2i,p} Growth_{i,t-p} + \sum_{p=1}^{k+m} \lambda_{2i,p} \text{Population}_{i,t-p} + \sum_{p=1}^{k+m} \&_{2i,p} \text{Cinema Audience}_{i,t-p} + \varepsilon_t \quad (3)$$

$$\text{Cinema Audience}_{i,t} = \alpha_{3i} + \sum_{p=1}^{k+m} \beta_{3i,p} Growth_{i,t-p} + \sum_{p=1}^{k+m} \lambda_{3i,p} \text{Population}_{i,t-p} + \sum_{p=1}^{k+m} \&_{3i,p} \text{Cinema Audience}_{i,t-p} + \varepsilon_t \quad (4)$$

5. FINDINGS AND EVALUATION

Before the findings of the study, summary statistics of the variables are given in Table 2.

Table 2. Summary statistics

	Growth	Population	Cinema Audience
Mean	4.512	1.572	17.156
Median	5.039	1.494	17.138
Maximum	11.439	2.315	18.210
Minimum	-5.750	0.406	16.046
Std. Dev.	4.196	0.418	0.664
Skewness	-0.743	-0.256	0.071
Kurtosis	3.016	2.939	1.697
Jarque-Bera	4.237	0.510	3.290
Probability	0.120	0.774	0.192
Observations	46	46	46

Each variable used in the research consists of 46 observations. Looking at the growth rate, it is seen that the highest growth rate figure was 11.439% and this growth rate was realised in 2020, while the lowest growth rate was -5.750% and this figure was realised in 2000. Türkiye's average growth rate between 1978 and 2023 was 5.039%. The fact that the skewness value of growth is negative indicates that growth is skewed to the left, and the kurtosis coefficient is greater than zero indicates a pointed distribution.

When the population growth rate is analysed, it is seen that the highest population growth rate was 2.315% and this growth rate was realised in 1983, while the lowest population growth rate was 0.406% and this figure was realised in 2023. Türkiye's average population growth rate between 1978 and 2023 was 1.572%. The fact that the skewness value of population

growth is negative, as in growth, indicates that the population growth rate is skewed to the left, while the kurtosis coefficient is greater than zero indicates a pointed distribution.

Finally, when we look at the number of cinema attendance, the highest attendance figure is 18,210 and this figure belongs to 1978 with 81,040,712 people. The lowest attendance figure is 16,046, which belongs to 1995 with 9,305,694.00 people. The average number of people going to the cinema in Türkiye between 1978 and 2023 is 17,156 and this figure is 34,848,031.98 people. The fact that the skewness coefficient of the number of cinema attendance takes a positive value in contrast to the growth and population shows that the demand for cinema is skewed to the right, and the kurtosis coefficient being greater than zero shows a pointed distribution.

Table 3. Unit root test findings

	ADF		**PP**	
Model	**Constant**	**Constant and Trend**	**Constant**	**Constant and Trend**
Level	t-Statistic [Prob]	t-Statistic [Prob]	t-Statistic [Prob]	t-Statistic [Prob]
Growth	-3.584 [0.000]*	-4.175 [0.000]*	-3.584 [0.000]*	-4.175 [0.000]*
Population	-3.584 [0.081]	4.175 [0.291]	-3.584 [0.086]	-4.175 [0.314]
Cinema Audience	-3.584 [0.298]	-4.175 [0.638]	-3.584 [0.281]	-4.175 [0.639]
First difference	**Constant**	**Constant and Trend**	**Constant**	**Constant and Trend**
ΔPopulation	-3.588 [0.000]*	-4.180 [0.000]*	-3.588 [0.000]*	-4.180 [0.000]*
ΔCinema Audience	-3.588 [0.000]*	-4.180 [0.000]*	-3.588 [0.000]*	-4.180 [0.000]*

Note: * is significant at 1% significance level.

According to the unit root test results given in Table 3, the growth variable is stationary at 1% significance level according to the two models of ADF and PP unit root tests. Population and cinema attendance variables are stationary at 1% significance level according to the two models of ADF and PP unit root tests. After applying the unit root test, it is observed that the trends of growth and cinema attendance are not significant. However, the trend of population growth rate is significant and therefore, population growth rate is included in the analysis by removing the trend. As a result, the

variables were found to be stationary at different orders and it was decided to apply ARDL bounds test and Toda-Yamamoto causality test to the variables.

Table 4. ARDL bounds test findings

Test Statistic	**Value**	**k**
F-statistic	2.503	2
Critical Value Bounds		
Significance	**I(0) Bound**	**I(1) Bound**
10%	3.17	4.14
5%	3.79	4.85
1%	5.15	6.36

It is observed that the F statistic value of the ARDL bounds test in Table 4 is below the lower bound values of all significance levels. According to these results, it shows that there is no cointegration relationship between the variables.

Following the ARDL bounds test, Toda-Yamamoto causality test was applied to the variables. While applying this test, the lag length was chosen as 2 by taking into account the AIC information criterion, and dmax was taken as 1, where the variables are stationary at the highest order.

Table 5: Causality test findings

Dependent variable: Cinema Audience			
Excluded	**Chi-sq**	**df**	**Prob.**
Population	11.203	2	0.003*
Growth	5.039	2	0.080***
All	13.914	4	0.007*
Dependent variable: Population			
Excluded	**Chi-sq**	**df**	**Prob.**
Cinema Audience	8.364	2	0.015**
Growth	0.885	2	0.642
All	8.765	4	0.067***
Dependent variable: Growth			
Excluded	**Chi-sq**	**df**	**Prob.**
Cinema Audience	6.118	2	0.046**
Population	7.514	2	0.023**
All	10.197	4	0.037**

Note: * is significant at 1%, ** at 5%, *** at 10% significance level.

When Table 5 is examined, it is confirmed at a 1% significance level that the rate of population growth is the cause of the number of cinema viewers. On the other hand, it is found significant at 10% significance level that the rate of growth is the cause of the number of cinema viewers.

It is found significant at a 5% significance level that the increase in the number of cinema viewers is the cause of the population growth rate. According to another result, it is found significant at a 5% significance level that the increase in population growth rate and the increase in the number of cinema audiences are the causes of growth.

Based on these results, it is determined that there is a bidirectional causality relationship between the number of cinema audiences and the population growth rate. Likewise, it has been determined that there is a bidirectional causality relationship between growth and the number of cinema audiences.

6. CONCLUSION AND DISCUSSION

In the analyses conducted in this study, no cointegration relationship was found between the variables. After the cointegration test, the causality relationship between the variables was examined.

The first step of the causality test is the part where the number of cinema viewers is taken as the dependent variable and economic growth and population are taken as independent variables. Here, the results show that economic growth and population growth rate are the causes of the number of cinema audiences. According to this result, it has been shown that people increase their spending on cultural activities with economic growth in Türkiye and that economic growth in Türkiye is a macroeconomic variable that supports cultural economy. Like economic growth, population growth in Türkiye also increases the number of cinema audiences and this shows that the population naturally increases the demand for cultural economy. Therefore, it has been determined that as Türkiye grows economically and in terms of population, the consumption of cultural economy increases.

The second step of the causality test in the study consists of the part where the population is taken as the dependent variable and economic growth and a number of cinema audiences are taken as independent variables. Here, the results show that the number of cinema viewers is the cause of the population growth rate. In other words, as the number of cinema viewers in Türkiye increases, the population increases. This result shows us that the cinema industry in Türkiye is not only a place where people come together, have fun and have a good time, but also a cultural economic activity where some people meet and establish a home in addition to cultural exchange.

The third step of the causality test in the study consists of the part where economic growth is taken as the dependent variable and population and number of cinema audiences are taken as independent variables. In this section, it is determined that the population growth rate and the increase in the number of cinema audiences are the causes of economic growth in Türkiye. According to this result, it shows that the labour supply increasing with the population growth in Türkiye supports production. According to another result, it is possible to say that the development of cinema culture and industry in Türkiye supports production by providing employment and investment opportunities in the cultural economy and services sector as well as indirectly affecting other sectors.

The findings obtained in this study support the results of studies conducted both in Türkiye and other countries and country groups in the literature; Güneş (2005), Khan et al. (2010), Shi et al. (2012), Erataş, Alptekin & Uysal (2013), Uçan & Kaçar (2017), Polat (2018), Coşkun-Yılmaz (2023), Leitao et al. (2023), Chukwunonso (2024), Alemu & Zegema (2024).

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