

## Causality Relationship between Foreign Investment and Tourism Sector Growth: Selected African Continent Countries

Nigar Huseynli

Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan, Sakarya University, Sakarya, Turkey, Email, [n.huseynli@unec.edu.az](mailto:n.huseynli@unec.edu.az), [nigar.guliyeva@ogr.sakarya.edu.tr](mailto:nigar.guliyeva@ogr.sakarya.edu.tr)  
<https://orcid.org/0000-0001-7817-6485>

*\*Corresponding Author*

**How to cite this article:** Huseynli, N. (2022). Causality Relationship between Foreign Investment and Tourism Sector Growth: Selected African Continent Countries. African Journal of Hospitality, Tourism and Leisure, 11(4):1656-1667. DOI: <https://doi.org/10.46222/ajhtl.19770720.315>

### Abstract

The main purpose of this study is to determine whether there is a causal relationship between the development of the tourism sector in selected African continent countries and foreign investments, total capital increases, and economic growth in these countries. For this, the Granger method, which measures the causality relationship, was preferred. The countries of Morocco, South Africa, and Tanzania were chosen as the sample countries. The data set required in the analysis process was obtained from the World Bank. As a result of the analysis, it was concluded that there is a causal relationship between different variables in all three countries. The causal relationships that have been found are usually one-sided. A causal relationship has been determined between the development of the tourism sector in Morocco and the income obtained from this sector and economic growth. In South African, it was concluded that there was a causal relationship between the foreign investments coming to this country and the total capital increases in the country. The Tanzani results show that there is a causal relationship between the development of the tourism sector in this country and total capital increases in this country.

**Keywords:** Foreign investment; tourism; Morocco; South Africa; Tanzania

### Introduction

Investment in the tourism sector includes the modernization, rebuilding and compliance process of existing facilities that can produce and provide certain types of tourist products (tourist services), as well as creating new tourist facilities with the help of capital. Investments in the tourism sector mean the use of financial resources in the form of long-term capital investments both at home and abroad in order to obtain the desired amount of profit from the invested funds. According to the World Travel and Tourism Council's [WTTC] latest annual research, after a loss of approximately US \$4.9 trillion in 2020 (down -50.4%), travel & tourism's contribution to GDP is US \$1 trillion in 2021 (+21.7% increase). In 2019, the Travel and Tourism industry contributed 10.3% to global GDP; A share falling to 5.3% in 2020 due to continued mobility restrictions. 2021 saw the share rise to 6.1 percent. Travel and tourism accounted for 6.1 percent of global gross domestic product (GDP) in 2021, an increase from 2020, but still below the figures reported before the coronavirus (COVID-19) pandemic. Overall, the total contribution of travel and tourism to global GDP was roughly US \$5.81 trillion in 2021 (WTTC, 2022).

Chen and Devereux (1999) used the standard theoretical trade model specific to Sub-Saharan Africa to focus on the welfare effects of tourism for developing countries. This study revealed that tourism can reduce welfare for trade regimes dominated by export taxes or import subsidies and FDI is beneficial in tourism. In addition, it is argued that more tourists will increase the demand for hotels and therefore investments will expand (Tang et al., 2007). However, based on the work of Banerjee et al. (2015), Hof and Blázquez-Salom (2015), Stauvermann and Kumar (2017), the tourism industry needs capital, infrastructure, information

and global marketing and distribution to thrive and sustain. It is not necessary to emphasize that it requires access to chains. Considering the economic effects of tourism, many countries desire the expansion of tourism.

There have been studies investigating the relationship between the tourism sector and FDI in different countries. Namely, among these studies, in China (Tang et al., 2007), USA (Sandford & Dong, 2000), Austria (Daly et al., 1996), South Africa (Heese, 2000; Snyman & Saayman, 2009), India (Selvanathan et al., 2012) and Caribbean countries (Willem & Nair, 2006). Although there are a few studies on South Africa, not many studies have been found for Morocco and Tanzania. Kruger-Cloete (1995) conducted research on financing the development of tourism in South Africa. Heese (2000) explored investment trends such as FDI in South Africa and overseas investment of South African firms. A study was conducted by Snyman and Saayman (2009) aiming to identify the key factors influencing FDI for the South African tourism industry in order to successfully attract and sustain FDI while remaining competitive globally. FDI remains paramount for the South African tourism industry to remain global and sustain growth in tourist numbers. This is particularly evident in the context of a developing country, which requires major improvement in both infrastructure and superstructures. The South African tourism industry is valued at US \$10 billion per year and is expected to grow sharply as the government and private sector invest in a marketing and promotional move (Snyman & Saayman, 2009).

Another variable covering the subject of the research is the relationship between tourism and economic growth. There are also studies on tourism-oriented economic growth in African countries (Balcilar et al. 2014; Durbarry, 2004; Fayissa et al. 2008; Huseynli, 2022b; Kumar, 2014; Meyer, 2018; Phiri, 2016; Salawu, 2020). Durbarry's (2004) research in Mauritius based on data from 1952 to 2004 found that tourism causes economic growth. Fayissa et al. (2008) analyzed the situation in 42 countries in the African continent between 1995 and 2004 and found that tourism caused economic growth with a coefficient as low as 0.03. Kumar (2014) found a low coefficient of 0.08 between tourism and economic growth in Kenya from 1978 to 2010. According to Balcilar et al. (2014) examined the relationship between tourism and economic growth in South Africa during the period 1960-2011 using the Granger causality method based on VECM. As a result of the study, a two-way causality relationship was found only for the sample period of 1985-1990. In a study by Meyer (2018), a quantitative data-based study was conducted with time series data from 1996 to 2017 in South Africa. As a result of the study, it was found that there are both long-term and short-term relationships between the variables. While the non-causal relationship between tourism and economic growth was found for the Nigerian case by Salawu (2020), the bidirectional causal relationship between the variables was also revealed for the South African example by Phiri (2016).

On the other hand, the relationship between tourism and economic growth is expressed through different channels. The theory argues that the number of tourists entering a country is an important factor for economic growth. From this point of view, in this study, it has been examined whether there is a relationship between the development of the tourism sector for Morocco, South Africa and Tanzania and foreign investments, total capital increases and economic growth in these countries.

## **Theoretical background**

### ***Economic growth and the tourism sector***

Tourism can trigger economic development as it provides a number of forward and backward links. Hotels and tourist resorts need supplies from farmers, food and beverage companies, construction, communications and service companies such as electricity, gas, water and

sewerage. These are called backward links, as the impact of tourism investment creates a demand for these services (Ilie, 2015). Tourism makes an important contribution to economic development, generates income and foreign exchange, creates new employment opportunities for local people and helps diversify the local economy.

It is well recognized that tourism supports significant advancements in a nation's infrastructure, technology, and foreign exchange revenues. Tourism also helps develop job possibilities (Oh, 2005). It is said that improving tourist development can help with economic growth, poverty reduction, and food security (Richardson, 2010). While the circular economy is a popular topic on the political agenda of many countries, expanding empirical evidence shows that so far increases in global gross domestic product (GDP) are tightly linked to increases in material size. footprint and related ecological effects of the economy (Hickel & Kallis, 2019). Development policies for regional economic growth, supported by the use of technology, will accelerate and encourage the increase in productivity in economic initiatives developed in the society. Community economic development through entrepreneurial education has an impact on economic growth, and efforts to increase community productivity will require technological innovation (León-Gómez et al., 2021). The realization of economic growth is among the main goals that almost every country wants to achieve. For this reason, economic growth is affected by many positive or negative factors (Huseynli, 2022a). From this point of view, tourism is now considered a viable and important source of growth. Many countries see the tourism sector as a potential factor for economic development. The tourism sector is now recognized as a leading sector in many countries, as it grows faster than other sectors of the economy and creates many job opportunities. Today, tourism is very important in the economic and social development of countries and economists call it invisible exports (Aghdaie & Momeni, 2011).

Economic growth that is driven by tourism has received a lot of attention in the literature. When Arslanturk et al. (2011) looked at the link between tourism income and economic growth across time, they discovered that there was no causal connection between the two series. However, after 1983, they discovered a direct causal connection between tourism revenues and economic growth. Using the VAR model, Eeckels et al. (2012) looked at the link between tourism and economic growth in Greece from 1976 to 2004 and discovered that tourist revenues had an impact on economic growth. Kadir et al. (2012) used panel data on international tourist arrivals from the ASEAN-5 adjacent nations covering the period 1998–2005 to explore the link between tourism and economic growth in Malaysia. The investigation led him to the conclusion that the two variables are long-term cointegrated. Sokhanvar et al. (2018) looked at Indonesia and found that there wasn't much evidence of a strong link between travel and economic growth.

Tourism is recognized as one of the most profitable, productive and intensively developing sectors of the world economy. Many countries see tourism as an important and integral part of their economic development strategies. In addition, tourism enhances the region's image as an overall economically developed region. Therefore, tourism has a higher spillover and multiplier effect compared to other sectors of the economy. It has been stated that the direct participation and investments of governments play a very important role in the evolution and development of tourism as an important economic sector (Akama, 2002). Therefore, during the evolution and emerging phase of tourism development, governments in developing countries are implementing policies that support the development of the tourism industry.

Eugenio and Scarpa (2004) tested the type of relationship between economic growth and tourism for Latin American countries between 1985 and 1998. Kim et al. (2006) tested the relationship between the tourism sector and economic growth for Taiwan. It proved that there

is a bidirectional causality relationship between tourism and economic growth in Taiwan. Khalil and Kakar (2007) examined the short- and long-run causality between economic expansion and tourism revenues in Pakistan. He concluded that there is a long-term relationship between the development of the tourism sector and Pakistan's economic growth. Fayissa et al. (2007) investigated the relationship between the tourism sector and economic growth using panel data from 42 African countries. After their study, Lee and Chang (2008) examined the direction of the relationship between the tourism sector and the growth of the economy. Tourism has recently emerged as the largest industry affecting the overall growth of the economy (Lashkarizadeh et al. 2012). A study by Tabash (2017) examined the long-term relationship between economic growth and international tourism revenues (ITRs) in the Palestinian state over the period 1995-2014.

In a study by Huseynli (2022b), it was investigated if there was a connection between the volume of visitors visiting Egypt between 2005 and 2020, their financial contributions, and Egypt's economic development. The results of the study led to the conclusion that Egypt will have to make more money because it gets so many tourists. In a study by Chipumuro and Chikobvu (2022), tourism flows from all foreign countries to South Africa from 2009 to February 2020 were examined using time series models. The study concluded that South Africa is currently losing more than 90% of monthly tourist arrivals due to the pandemic and shows no signs of imminent recovery, thus having a devastating impact on the tourism industry.

### ***Foreign investments and tourism sector***

Foreign direct investment (FDI) is one of the tools that many countries use to develop their tourism industry. FDI in the tourism industry presents special challenges and concerns. According to Francis (1993), the possibility of an investment to cause loss rather than profit scares potential investors. A study by Daly et al. (1996) reviewed the years of the tourism and foreign investment boom of the 1980s in Australia and discussed the policy implications for the long-term development of tourism and the role of foreign investment. Foreign direct investment (FDI) is one of the means by which developing countries can develop their tourism sectors. Foreign investments are generally given priority in the emerging tourism markets of developing countries. The advantages of foreign investments in regional tourism have been investigated by The hotel and transport sectors require heavy initial investment to provide the physical elements of the tourism product (eg hotel buildings, transfers). Haley and Haley (1997) state that the causality between FDI and tourism can also extend from FDI to tourism. Foreign direct investment (FDI) is an ever-present feature of tourism in developing countries (Chen & Devereux, 1999).

Sandford and Dong (2000) conducted a study examining the impact of tourism on new FDI. It is argued that international tourism gives potential investors the opportunity to obtain first-hand information about the environment of the country visited, and as a result, investment opportunities can be identified (Sandford & Dong, 2000). FDI can be defined as an investor residing in one country acquiring an asset in another country in order to manage the asset (Naude & Krugell, 2003). Willem and Nair (2006) explored whether Caribbean countries could use services trade negotiations to increase the amount of tourism FDI flows. Tang et al. (2007) conducted a research that clearly models the possible bidirectional relationship between tourism and FDI flows. A distinction needs to be made between tourism superstructure providers, such as the hotel and transportation industries, and packagers and sellers of tourism products, such as tour operators and travel agencies (Snyman & Saayman, 2009). Selvanathan et al. (2012) examine the causal link between foreign direct investment and tourism in India using the Granger causality test.

## Research methodology

### *Data set*

The data set was created in line with the information announced by the World Bank. The data set includes the years 1997-2020. Data were evaluated annually and analyzed using the Granger method. The main purpose of the study is to determine the existence of the relationship between the development of the tourism sector in the selected African continent countries and the foreign investments in this country. For a more robust analysis, total capital increases and economic growth are also included in the analysis. The logarithm of all variables used was used. As an example, Morocco, South Africa and Tanzania from the African continent were chosen. The analysis is limited to three countries, as there are problems with certain data in most of the other touristic countries.

### *Analysis method*

The data set of the study includes a 24-year period. Eviews program was used for the analysis. The data required for the analysis were obtained from the World Bank. The logarithmic values of the variables were used in the analysis process. Economic growth, tourism revenues, foreign investments and total capital increases constitute our data set. Our dataset is handled in dollars. Granger method was used for the analysis. The method used in the study; It is expressed as the stationarization of linear combinations of two or more time series that are not individually stationary. Equations obtained as a result of stationarization of non-stationary series are called cointegrated equations. The analysis to be made with cointegration and error correction models is basically subject to a four-stage process. These stages are listed below:

- Integration priority of the variables in the model is determined.
- The cointegration equations are estimated with the help of Least Squares Method (Least Squares) for the variables with the same degree of integration.
- Series are made stationary with Augmented Dickey Fuller (ADF) tests.
- The cointegration relationship between the variables is examined by applying the Engle-Granger method.

If the series of error terms is found to be stationary as a result of this test, it is decided that the variables in question are in a cointegration relationship. In the opposite case, the existence of a cointegration relationship cannot be mentioned. It is possible to define the equation of the series of error terms as follows:

$$\Delta e = h_1 * e_{t-1} + \epsilon_t \quad (1)$$

Since  $h_1$  in the above equation expresses the basic hypothesis of the model, the basic hypothesis established here is as follows;

*H<sub>0</sub>: Has a unit root, the series is not stationary*

*H<sub>1</sub>: There is no unit root, the series is stationary*

Therefore, if the  $H_0$  hypothesis is rejected, it is decided that the  $e_t$  series is stationary and that the variables used in the model are in a cointegrated relationship.

### **Analysis and results**

In this analysis process, it was emphasized whether the series were stationary or not. If our series are not stationary and our  $H_0$  hypothesis is accepted, we cannot proceed to the next stage.

Therefore, the non-stationary values are indicated in Table 1 and since it is observed that the series are not stationary, the stationarization process is started.

Table 1. Level Values of Series

<b>Morocco</b>									
		<b>GDP</b>		<b>Tourism revenues</b>		<b>Foreign investment direct</b>		<b>Capital formation</b>	
		<b>t-statistics</b>	<b>Possibility</b>	<b>t-statistics</b>	<b>possibility</b>	<b>t-statistics</b>	<b>possibility</b>	<b>t-statistics</b>	<b>possibility</b>
ADF testing statistics		-1.239623	0.6389	-2.278645	0.1866	-2.617252	0.1987	-2.014269	0.2790
Test Critical Values	% 1	-3.752946		-3.752946		-3.752946		-3.752946	
	% 5	-2.998064		-2.998064		-2.998064		-2.998064	
	% 10	-2.638752		-2.638752		-2.638752		-2.638752	
<b>South Africa</b>									
		<b>GDP</b>		<b>Tourism revenues</b>		<b>Foreign investment direct</b>		<b>Capital formation</b>	
		<b>t-statistics</b>	<b>Possibility</b>	<b>t-statistics</b>	<b>possibility</b>	<b>t-statistics</b>	<b>possibility</b>	<b>t-statistics</b>	<b>possibility</b>
ADF testing statistics		-1.185548	0.6625	-1.213522	0.6504	-2.209628	0.6128	-2.324618	0.1731
Test Critical Values	% 1	-3.752946		-3.752946		-3.831511		-3.752946	
	% 5	-2.998064		-2.998064		-3.029970		-2.998064	
	% 10	-2.638752		-2.638752		-2.655194		-2.638752	
<b>Tanzania</b>									
		<b>GDP</b>		<b>Tourism revenues</b>		<b>Foreign investment direct</b>		<b>Capital formation</b>	
		<b>t-statistics</b>	<b>Possibility</b>	<b>t-statistics</b>	<b>possibility</b>	<b>t-statistics</b>	<b>possibility</b>	<b>t-statistics</b>	<b>possibility</b>
ADF testing statistics		-1.892744	0.3296	-2.219488	0.2062	-2.568802	0.1136	-2.359800	0.1633
Test Critical Values	% 1	-3.752946		-3.831511		-3.752946		-3.752946	
	% 5	-2.998064		-3.029970		-2.998064		-2.998064	
	% 10	-2.638752		-2.655194		-2.638752		-2.638752	

Vertical-Fuller unit root test results for the levels of unit root variables are shown with one percent, five percent and ten percent margin of error for all three countries ( $H_0$ : The series is not stationary,  $H_1$ : The series is stationary.  $H_0$  is not the reason, so we reject it,  $H_1$  hypothesis was determined, as we accept). When we examine the data in the table, we see that all three probabilities are greater than 0.05 in all three countries. In this case, the null hypothesis is accepted. That is, the data in the table is not static.

In general, for the series of economic growth, tourism revenues, foreign investments and total capital increase, the fact that the t statistical values are smaller than the test critical values at all significance levels does not indicate that the series of economic growth, tourism revenues, foreign investments and total capital increase are stationary in these countries. shows. In order to be able to analyze, the series must be stationary. For this, in order to make the series stationary, the difference of the series values of both countries has been tried to be taken. The stationary state of the series was reached only when the second-order difference was taken. Retesting the stationary state of the data of both countries is presented in Table 2.

Table 2 shows the values formed by taking the second difference of the variables used in the study of all three countries and making them stationary for the period 1997 - 2020. It is seen that these series are second-order stationary ( $p \leq 0.05$ ).



Table 2. Second Difference Values of Series

Morocco									
		GDP		Tourism revenues		Foreign investment direct		Capital formation	
		t-statistics	Possibility	t-statistics	possibility	t-statistics	possibility	t-statistics	possibility
ADF testing statistics		-3.938415	0.0085	-3.876299	0.0083	-5.817252	0.001	-6.489630	0.0000
Test Critical Values	% 1	-3.857386		-3.788030		-4.762947		-3.788030	
	% 5	-3.040391		-3.012363		-2.878062		-3.012363	
	% 10	-2.660551		-2.646119		-2.649251		-2.646119	
South Africa									
		GDP		Tourism revenues		Foreign investment direct		Capital formation	
		t-statistics	Possibility	t-statistics	possibility	t-statistics	possibility	t-statistics	possibility
ADF testing statistics		-4.250489	0.0053	-3.988035	0.0430	-6.209628	0.0001	-5.987370	0.0001
Test Critical Values	% 1	-3.920350		-3.788030		-4.481531		-3.788030	
	% 5	-3.065585		-3.012363		-3.149872		-3.012363	
	% 10	-2.673459		-2.646119		-2.607197		-2.646119	
Tanzania									
		GDP		Tourism revenues		Foreign investment direct		Capital formation	
		t-statistics	Possibility	t-statistics	possibility	t-statistics	possibility	t-statistics	possibility
ADF testing statistics		-4.835174	0.0011	-5.821016	0.0002	-4.593128	0.0022	-5.656872	0.0002
Test Critical Values	% 1	-3.808546		-3.886751		-3.857386		-3.808546	
	% 5	-3.020686		-3.052169		-3.040391		-3.020686	
	% 10	-2.650413		-2.666593		-2.660551		-2.650413	

The fact that the T statistical value is greater than the test critical values in absolute value at every significance level in both countries shows that the given series are stationary. It is observed that the data discussed in the tables become stationary with their second difference or they do not contain a unit root. By using the level values of the variables, the VAR model was established as a first step and the appropriate lag number was determined with the help of Akaike (AIC), LL, LR, FBE, SC and HQ information criteria. The analysis results regarding the determination of the appropriate lag length are given in Table 3.

Table 3. Appropriate Delay Length

Morocco						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	6.206370	NA	9.53e-06	-0.210130	-0.011174	-0.166952
1	65.58480	90.48141*	1.59e-07*	-4.341409*	-3.346626*	-4.125516*
2	75.08120	10.85303	3.60e-07	-3.722019	-1.931409	-3.333411
3	86.15198	8.434884	1.05e-06	-3.252570	-0.666133	-2.691247
South Africa						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-35.97491	NA	0.000529	3.807134	4.006091	3.850313
1	32.70923	104.6615*	3.64e-06*	-1.210403	-0.215619*	-0.994509*
2	50.36285	20.17557	3.79e-06	-1.367890*	0.422720	-0.979282
3	66.29499	12.13878	6.94e-06	-1.361428	1.225009	-0.800105
Tanzania						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	6.031025	NA	9.69e-06	-0.193431	0.005526	-0.150252
1	84.05488	118.8935	2.73e-08	-6.100465	-5.105682	-5.884572
2	98.35752	16.34587	3.92e-08	-5.938811	-4.148201	-5.550203
3	136.6279	29.15839*	8.56e-09*	-8.059800*	-5.473364*	-7.498477*

\* indicates the appropriate lag length for the relevant test.

According to the test results, the most appropriate delay length was determined as three for Tanzania for two countries. Namely, the value with the most stars represents the optimal delay length.



Based on the results of the Granger analysis, it was tried to determine whether there was any causal relationship between the variables. Granger analysis results for all three countries are given in separate tables.

Table 4. Granger causality test Morocco

Hypotheses	F-value	Probability value (p)	Decision at 5% significance level
There is a causal relationship between economic growth and tourism revenues.	9.813460	0.0074	Acceptable
There is a causal relationship between economic growth and foreign investments.	0.736924	0.6918	Rejected
There is a causal relationship between economic growth and total capital increase.	2.969332	0.2266	Rejected
There is a causal relationship between tourism revenues and economic growth.	0.066760	0.9672	Rejected
There is a causal relationship between tourism revenues and foreign investments.	0.227281	0.8926	Rejected
There is a causal relationship between tourism revenues and total capital increase.	0.166130	0.9203	Rejected
There is a causal relationship between foreign investments and economic growth.	0.829012	0.6607	Rejected
There is a causal relationship between foreign investments and tourism revenues.	1.230451	0.5405	Rejected
There is a causal relationship between foreign investments and total capital increase.	2.671229	0.2630	Rejected
There is a causal relationship between total capital increase and economic growth.	0.741205	0.6903	Rejected
There is a causal relationship between total capital increase and tourism revenues.	7.595460	0.0224	Acceptable
There is a causal relationship between total capital increase and foreign investments.	0.089446	0.9563	Rejected

First of all, according to the result of Granger's analysis on Morocco, in this country, usually the variables are not the cause of each other. In other words, the development of tourism in Morocco and the income from this sector cannot attract foreign investments. In addition, the increase in the amount of foreign investments and general capital in the country do not affect the economy enough to create a causality. However, in general, a positive relationship was obtained between the incomes obtained from the tourism sector and the economic growth in the country ( $p < 0.05$ ). In other words, economic growth is a reason for the development of the tourism sector. The causality relationship between these data is one-sided and runs from economic growth to tourism revenues. In this case, hypothesis  $H_1$  is accepted.

Table 5. Granger Causality Test South Africa

Hypotheses	F-value	Probability value (p)	Decision at 5% significance level
There is a causal relationship between economic growth and tourism revenues.	5.169279	0.0754	Rejected
There is a causal relationship between economic growth and foreign investments.	5.055435	0.0798	Rejected
There is a causal relationship between economic growth and total capital increase.	2.513752	0.2845	Rejected
There is a causal relationship between tourism revenues and economic growth.	1.112122	0.5735	Rejected
There is a causal relationship between tourism revenues and foreign investments.	0.356202	0.8369	Rejected
There is a causal relationship between tourism revenues and total capital increase.	0.260049	0.8781	Rejected
There is a causal relationship between foreign investments and economic growth.	2.781519	0.2489	Rejected
There is a causal relationship between foreign investments and tourism revenues.	5.020376	0.0813	Rejected
There is a causal relationship between foreign investments and total capital increase.	4.427270	0.1093	Rejected
There is a causal relationship between total capital increase and economic growth.	1.836475	0.3992	Rejected
There is a causal relationship between total capital increase and tourism revenues.	6.703164	0.0350	Acceptable
There is a causal relationship between total capital increase and foreign investments.	1.272079	0.5294	Rejected

As a result of the Granger analysis on South Africa in Table 5, similar results were obtained, almost like the country of Morocco. Namely, there is no strong causality relationship between the macro variables involved. Contrary to the results in Morocco, there is a causal relationship between the increase in total investments in this country and foreign investments coming to the country. Although this result is unilateral, it shows that there is a causality from foreign investments to total investments ( $p < 0.05$ ). In other words, it is possible to conclude that a certain part of the total capital increase in this country is caused by foreign investments. In this case, the  $H_1$  hypothesis is accepted.





Table 6. Granger Causality Test Tanzania

Hypotheses	F-value	Probability value (p)	Decision at 5% significance level
There is a causal relationship between economic growth and tourism revenues.	1.673719	0.4331	Rejected
There is a causal relationship between economic growth and foreign investments.	1.585432	0.4526	Rejected
There is a causal relationship between economic growth and total capital increase.	3.970002	0.1374	Rejected
There is a causal relationship between tourism revenues and economic growth.	2.822795	0.2438	Rejected
There is a causal relationship between tourism revenues and foreign investments.	2.972375	0.2262	Rejected
There is a causal relationship between tourism revenues and total capital increase.	7.541566	0.0230	Acceptable
There is a causal relationship between foreign investments and economic growth.	5.120847	0.0773	Rejected
There is a causal relationship between foreign investments and tourism revenues.	2.624465	0.2692	Rejected
There is a causal relationship between foreign investments and total capital increase.	4.301252	0.1164	Rejected
There is a causal relationship between total capital increase and economic growth.	4.522325	0.1042	Rejected
There is a causal relationship between total capital increase and tourism revenues.	0.861862	0.6499	Rejected
There is a causal relationship between total capital increase and foreign investments.	0.034120	0.9831	Rejected

As a result of the Granger analysis on Tanzania in Table 6, similar results were obtained almost like other countries. There was no strong bilateral causality relationship between macro variables in this country. Contrary to the results in the other two countries, there is a causal relationship between tourism revenues and total capital increase in this country. Although this result is one-sided, it shows that there is a causality from tourism revenues to total capital increases ( $p < 0.05$ ). In this case, the  $H_1$  hypothesis is accepted.

### Discussion and conclusion

Tourism is one of the most important export sectors for many countries in the world. United Nations World Tourism Organization (UNWTO) and WTTC statistics stated that tourism constituted about 10 percent of the world's gross domestic product before the pandemic and about 5-6 percent after the pandemic (WTTC, 2022). Ramesh (2002) confirmed in his study that the tourism sector leads economic growth in Mauritius. In this study, it has been tried to determine whether there is a causal relationship between the development of the tourism sector, economic growth, foreign investments and total capital increases in selected African countries between 1997-2020. The country of Morocco, South Africa and Tanzania was chosen as an example. These countries, which are considered in terms of the tourism sector, have an important share in terms of tourism in this continent. Granger method was preferred to measure causality.

The data set required for the analysis was obtained from the World Bank. According to the results of the analysis, it was concluded that there is a causal relationship between different variables in all three countries. The causality relationships that have been found are usually one-sided for the variables. It has been concluded that there is a causal relationship between the development of the tourism sector in Morocco and the income obtained from this sector and economic growth. Similarly, according to the results of their study by Fayissa et al. (2007) on 42 countries from Africa, it is guaranteed that tourism revenues have a significant impact on economic growth in Sub-Saharan African countries. A causal relationship between other variables could not be determined. In the South African country, it was found that there is a causal relationship between the foreign investments coming to this country and the total capital increases in the country. Similarly, according to the results of the research conducted by Sandford and Dong (2000), a positive and significant relationship was found between tourism and foreign direct investment in the USA. According to the results of the research conducted by Tang, Selvanathan, and Selvanathan (2007), it was found that there is a one-way causality running from FDI to tourism in China. Lee and Chang (2008) confirmed that there is a one-way relationship between tourism and growth for OECD countries. According to the results of a study conducted by Selvanathan, Selvanathan, and Viswanathan (2012) in India, there is only a one-way causality relationship from FDI to tourism. That is, FDI has a causal effect on the

number of foreign tourists coming to India. The findings of the study conducted by Tabash (2017) in Palestine showed that there is a unique long-term relationship between GDP and international tourism revenues. No causal relationship was found between other data in this country either. When considered in terms of Tanzania, a causal relationship has been determined between tourism revenues and total capital increases in this country. In future studies, it would be useful to measure the relationship between foreign investments in the tourism sector and the job market. Because digitalization is an ongoing process in the field of tourism as in all areas. The labor market has clearly been significantly impacted by the digital transition, and this influence is anticipated to continue (Huseynli & Huseynli, 2022). There are studies between tourism development and job markets (Oh 2005; Richardson, 2010). From these points of view, the analysis of how the digitalization of job markets affects the economic development of tourism-oriented countries can make a very important contribution to the literature.

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