

Volume 11, Number 02, 2023, Pages 2166-2174 Journal Homepage:

Pakistan Journal of Humanities and Social Sciences

https://journals.internationalrasd.org/index.php/pjhss

tional research association for sustainable develop

The Impact of Tourism Receipts on Economic Development: A Panel Data Analysis for Selected Asian Countries

Ammara Anis¹, Maria Khushbakhet², Muhammad Shahid Maqbool³

¹ Lecturer, Department of Economics, Government Associate College for Women Kamalia, Pakistan. Email: ammara714@gmail.com

² Lecturer, Department of Economics, Government College Women University Faisalabad, Pakistan. Email: mariakhushbakhet@gcwuf.edu.pk

³ Assistant Professor, Department of Economics, Government Graduate College Gojra, Pakistan. Email: drmuhammadshahid@ggcg.edu.pk

ARTICLE INFO

ABSTRACT

Article History:		The current study aims at studying tourism which has emerged
Received:	May 01, 2023	as one of the most dynamic rising international industries for
Revised:	June 25, 2023	economies. The present study inspects the influence of tourism
Accepted:	June 26, 2023	receipts, trade openness, investment and population on the
Available Online:	June 27, 2023	economic growth of selected Asian nations between 1995 and
Keywords:		2021. The data for the variable of interest has been taken from
Tourism		the Global Development Indicator (WDI). Checks for LLC and IPS
Asian Countries		have been conducted on stationary. Both the models, FMOLS and
Economic Development		the Dynamic OLS, have been used to capture both short and long-
Receipts		run flexibility. For this objective, the Granger causality technique
Panel Data Analysis		has been utilized. The results indicate that tourism receipts have
Funding: This research receive grant from any funding public, commercial, or sectors.	d no specific agency in the not-for-profit	a favorable and substantial effect on the economic growth of some Asian nations. The study also shows that the tourism sector has ample capacity to contribute to economic growth; therefore, tourist-attractive places should be provided with essential amenities such as connectivity and infrastructure.
		© 2023 The Authors, Published by iRASD. This is an Open Access article

© 2023 The Authors, Published by iRASD. This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License

Corresponding Author's Email: drmuhammadshahid@ggcg.edu.pk

1. Introduction

Tourism has been recognized one of the rapidly growing industries in terms of external economic activities for countries in the global market. Its remarkable progress and expansion rates, significant inflows of foreign exchange, capacity for knowledge acquisition, and dynamic infrastructure development have a profound impact on various segments of the economy, making a significant contribution to the economic growth of the country. Advanced western economies particularly France, Switzerland and Austria have successfully capitalized on the tourism sector to reap substantial benefits. Presently, statistics indicate that tourism provides employment to the one tenth of the labour force in the globe and resultantly accounts for nearly 10 % of the world income. The tangible economic impact of tourism is undeniable, and many individuals emphasize its positive aspects as a means of generating foreign exchange. Hence, this sector can aptly be referred to as an "industry without chimneys" Martin (2004), highlighting its ability to generate economic prosperity without relying on heavy industry or manufacturing.

In 1996, Piercee wrote a book titled "Tourism Community Relationship," in which he emphasized the importance of five general sectors in tourist destinations: transportation, attractions, accommodation, supporting facilities, and infrastructure. He explained that attractions play a major role in enticing tourists to visit a particular location, and transportation services enable their access to these attractions. Housing and other supportive services, such as hotels, shops, and cafes, are provided for the welfare of visitors throughout their stay, and the smooth functioning of all these subdivisions is ensured by infrastructure. Since last few decades, tourism has successfully enlisted itself among the leading and fast-growing industries, driven by globalization and an increase in disposable income. In 2011, it accounted for about 5% of global GDP and between 6% and 7% of total worldwide employment. The rising income levels in the growing economies have fueled leisure-based activities and increased employment opportunities

globally. As a result, the demand for tourism appears sustainable, and this sector holds a significant capacity for economic growth, transformation, and physical development of economies. Tourism is seen as an important means of foreign exchange, contributing to the BOP and macroeconomic stability for many emerging economies. In 2011, it ranked fourth in global exports, with approximately 30% of commercial service exports and 6% of total exports being derived from the tourism sector. Statistics show that between 60 to 70 percent of individuals involved in the tourism industry are women, and the workforce comprises both experienced and new employees. Refugees find it relatively easier to enter the tourism labor force compared to other industries, and tourism services provided by their compatriots employed in foreign countries bring in remittances for many developing nations.

According to the International Labour Organization (ILO), in developing countries, the majority of tourism-related businesses, particularly in least developed economies, are small, medium, and micro enterprises. Numerous businesses operate in the informal economy, and employment opportunities are significant in emerging states, particularly those heavily reliant on tourism, such as small island developing nations. However, in absolute terms, the economic impacts of tourism are more substantial and diversified in larger countries like the United States of America, Japan, China, Brazil, France, Italy, and Spain. The increasing trend of intraregional travel has further fueled the growth of the tourism industry in many emerging nations. Consequently, governments have begun to pay increasing attention to this sector, recognizing its significant importance at both domestic and global levels as a source of revenue and employment. Governments have high expectations that this sector will contribute to the production of services and higher incomes, thereby helping to reduce poverty. Numerous studies highlight that tourism not only generates profits and employment but a key tool in the BOP for various countries also. Therefore, it has garnered substantial attention from governments, regional and local experts, and businesspeople. While many goods and services can be imported and exported across borders, tourism does not possess this quality. However, we can consider tourism as a product for sale, where visitors enter a market, pay for services, and immediately receive goods and services in return. Tourism creates additional opportunities for the sale of various goods and services. The product is carefully monitored, and its productive capacity is less exhaustible, causing minimal pollution to the environment (Mowforth & Munt, 1998). Numerous Caribbean countries, with limited resources, are able to enhance their foreign exchange earnings through international tourism. It, therefore, is imperative that tourism is sustainable and nature-friendly. Additionally, tourism helps developing nations reduce their dependence on traditional agricultural products and earn income through exports.

Asia, the largest continent in the world, occupies the eastern part of the Eurasian landmass. It comprises 50 independent countries surrounded by the Pacific, the Arctic and the Indian Ocean. The Suez Canal separates Asia from Africa, while the Black Sea and Mediterranean Sea separate it from Europe. Geographically, Cyprus and Armenia are located in Asia, but culturally and politically, they are considered part of Europe. Russia is the largest country in terms of land area, accounting for nearly 30% of the continent's total territory, while the Maldives is the smallest independent country consisting of islands famous for beach resorts. China, a vast cultural center, attracts a significant number of tourists to the region. World statistics indicate that tourism has grown by approximately 4% annually since 1990. However, this growth has not been evenly distributed among different regions of the globe. The expansion of the Southeast Asian economies and the diversification of world tourism destinations have led to further growth in industrialized countries. Utilizing panel data analysis, the purpose of the research is to conduct an investigation of the effect that tourism revenue has on the rate of economic growth in a number of Asian nations. In order to determine the extent to which tourism plays a role in the economic growth and development of the nations that are the focus of this study, the purpose of this study is to investigate the link that exists between tourism receipts and a variety of economic indicators.

2. Literature Review

Henry and Deane (1997) used an input-output model to evaluate the economic effect of tourism expenditures on gross national product, basic national income, and employment in Ireland from 1990 to 1995. Their findings suggested that tourism's expenditures had a directly significant effect on the expansion of the Irish economy. Fleischer and Felsenstein (2000) who concentrated on small tourism's dealings in Kinabalu National Park, found that individual savings and the tourism industry's partial vigilance restrained revenues for enterprises. Ridderstaat,

Croes, and Nijkamp (2014) evaluated the relationship between the increase of tourism and the growth of the economy in Aruba using a variety of analytical methodologies, including as the unit root test, the ECM test, the Granger causality test, and the cointegration test. Their research revealed the existence of a single cointegrating vector, demonstrating that tourism is an essential component of Aruba's endogenous growth and plays an important part in the island's overall development. Using the Johansen co-integration method, Balaguer and Cantavella-Jorda (2002) investigated the effect that tourism had on the progression of the Spanish economy from 1975 to 1997. Their findings revealed that tourism revenues had a favorable impact on the economy.

Dritsakis (2004) carried a research to investigate the extent to which tourism contributes to the expansion of Greece's economy. The researcher applied a VAR (Vector Autoregression) model to investigate the time period from 1960 to 2000. They uncovered evidence that suggests the presence of a causal association between foreign tourism profits and economic growth in Greece. This relationship was found to be significant. In their study, Martín (2005) looked at the relationship between tourism and economic growth in Latin American countries from 1985 to 1998. The time period covered by their research was from 1985 to 1998. The time period covered was from 1985 to 1998. An investigation into the part that tourism played in the economic growth of 42 different African nations was carried out by Damji and Feisal (2005) between the years 1995 and 2004. The researchers conducted an analysis and gave evidence of the large contribution that the tourism industry makes to the economies of the countries located in sub-Saharan Africa using the Granger causality test. Oh's study from 2005 investigated the connection between economic growth and the growth of the tourism industry in the Korean economy. Both a two-stage technique developed by Engle and Granger and a VAR (Vector Autoregression) model were applied in the research project. According to the data, the relationship is one-way, indicating that tourism does have an effect on the growth of the economy in Korea. Kim and Chen (2006) conducted study with the objective of determining whether or not there is a connection between the expansion of Taiwan's tourist industry and the general expansion of the economy of the country as a whole. During the course of their analysis, they made use of the Granger test to determine whether or not there was a causal relationship. The findings of this study revealed that there is a two-way chain of causality between the growth of tourism and the expansion of the economy, which shows that both factors effect and interact with one another in the context of Taiwan. This was shown by the fact that the data suggested that there was a positive correlation between the two variables.

A study was conducted by Gokovali, Bahar, and Kozak (2007) to examine the influence of capital and labor on economic growth that is growth-led hypothesis about tourism in Mediterranean countries. The years 1987 through 2002 were included in their study, and both fixed and random effect models were used to interpret the data. Risso and Brissa used the contribution that Chile's tourism industry made to the country's overall economic expansion from 1986 to 2007. According to the results of the study, foreign tourism was shown to be of great benefit to the expansion of the economy throughout the course of time. Cagayan et al., (2009) evaluated the causal association between GDP and tourism for 135 countries during the period of 1995-2008 using the Granger causality test. Their findings suggested both bidirectional and unidirectional causality in the relationship. The tourist demand in developing states was explored by Teelucksingh and Nunes (2010) using the Hausman-Taylor estimator. Their findings demonstrated that biodiversity has a substantial influence on tourism. In his research published in 2010, Dritsakis investigated the connection between the expansion of tourism and the expansion of economic activity in seven Mediterranean nations. In the study, data were collected from 1980 to 2007, and a heterogeneous panel co-integration methodology and a method known as FMOLS (Fully Modified Ordinary Least Squares) were implemented. Expansion of tourism has a discernible influence on GDP of the Mediterranean nations that were under investigation.

Over the course of the years 1963-2006, Arslanturk, Balcilar, and Ozdemir (2011) looked into the connection that existed between the amount of money made by tourism and Turkey's real GDP. According to the data, receipts from tourism have a favorable impact on GDP, which suggests that tourism plays a constructive role in contributing to the expansion of Turkey's economy. Uysal, Sirgy, Woo, and Kim (2016) applied multiple regressions in their investigation of the impact of exchange rates on tourism in Turkey. Their findings indicated that exchange rates are a significant determinant in international tourism. An investigation into the connection between Greece's tourism industry and the country's currency exchange rate was carried out by

Thompson (2011). The ECM (Error Correction Model) methodology was implemented for the analysis, which made use of data spanning the years 1974 to 2006. According to the findings of the research, a growth in the value of the currency led to an increase in the revenue generated by tourists. This suggests that there is a positive association between the two variables in the context of Greece. In a study that was carried out by Akkemik (2012), the contribution that foreign tourism had made to the economy of Turkey during the course of the years 1996-2002 was investigated. International tourism is a substantial contributor to GDP of the country. It appears from this that the influx of tourists from other countries had a beneficial effect on the economy of Turkey during the period of time that was stated.

Samimi, Sadeghi, and Sadeghi (2011) carried out research over the course of the years 1995-2009 to investigate the correlation, both causal and long-term, that exists between the expansion of tourism and the expansion of the economy. According to the results of the study, there is a two-way chain of causation, which suggests that the expansion of tourism and the expansion of the economy influence each other reciprocally. In addition, the research showed that there is a beneficial link between the expansion of tourism and the expansion of the economy over the long run. Shah and Zaman (2011) conducted research on the relationship between tourism receipts, economic growth, and the exchange rate in Oman during 1995-2011. They used the ARDL test to assess the bidirectional and unidirectional causation of tourism receipts and the exchange rate on GDP, respectively. Yang, Lin, and Han (2010) provided an explanation for the large disparities that existed in the development of tourism across China during 2000-2009. He also provided empirical evidence that tourism positively influenced economic growth. Das and Chakraborty (2012) conducted research on the economic impact of tourism in India and found that both local and international tourist arrivals contributed significantly to the nation's gross domestic product (NSDP) growth. Tgue (2013) used cross-sectional dependence approaches to investigate the relationship between international tourism and economic growth over the course of the period 1981-2011. His findings suggested both bidirectional and unidirectional causality in Europe and Asia, respectively.

Mushtag and Zaman (2013) conducted an investigation into the various macroeconomic variables that have an influence on tourism receipts in the SAARC area. They used data from 1995 to 2011 and their findings indicated that trade openness and GDP had a substantial impact on tourism revenues. Isik et al., (2014) evaluated the relationship between the development of tourism and foreign direct investment in D7 nations. They used data from 1980 to 2014 and found that tourism had a beneficial impact on FDI. Margh and Gursoy (2014) focused their research on the tourism industry in Jamaica and employed primary data gathered from Jamaican citizens. The results of the multiple regression analysis showed that there is a significant connection between the growth of tourism in Jamaica and political imperialism in the country. In their study, Sajjad, Noreen, and Zaman (2014) evaluated the long-run causal association between air pollution, climate change, and the growth of tourism in a number of different locations. The study looked at the data from 1975 all the way up to 2012. According to the findings, a combination of climate change and air pollution had a detrimental effect on the growth of the tourism industry in the places that were researched. This lends credence to the idea that environmental considerations play a substantial part in determining the trajectory of the tourism industry's expansion and continued viability in these regions. Rodriguez (2014) conducted a study in which he analyzed the effects of tourism receipts on capital goods import and GDP in Spain, the United Kingdom, and Croatia. The outcomes of the VAR and Granger causality tests revealed a positive correlation between tourism receipts and economic development.

Garidzirai and Pasara (2020) studied the impact that tourism had on the economy of South Africa from 1996 to 2018 and came to the following conclusions. After analyzing the growth of tourism in UDCs from 1995 to 2004, Fang and Fang (2020) came to the conclusion that tourism had a positive effect on the economy of these countries. The contribution that tourism makes to Bangladesh's economy was analyzed by Akbar, Myrzaliyeva, Tazhekova, Saulembayev, and Kenzhebay (2021). The country's economy has benefited tremendously from the establishment of tourism ever since it was first established. Dossou, Ndomandji Kambaye, Bekun, and Eoulam (2023) evaluated the relationship between tourism governance and poverty using FE, PCSE, and GMM valuations from 2003 to 2015. Their findings showed that over this time period, there was a reduction in poverty as well as an increase in tourism and governing quality as well as economic growth. Between the years 1976 and 2020, Bhattarai and Karmacharya (2022) evaluated the effect that tourism had on the economy of Nepal. We applied the ARDL model, but were unable to identify any long-run connections between the variables. From the years 2000 to 2019, Su et al. (2021) investigated the impact that China's tourism industry had on the country. The positive effect that tourism has on China's economy was proved by the findings of both the VAR and ECM methodologies. After analyzing the growth of tourism in UDCs from 1995 to 2004, Fang and Fang (2020) came to the conclusion that tourism had a beneficial effect on the economy of these countries.

In their study, Bhattarai and Karmacharya (2022) investigated the contribution that tourism made to the economy of Nepal between the years 1976 and 2020. Their focus was on the period from 1976 to 2020. In order to look into the connection, they applied a model called ARDL, which stands for autoregressive distributed lag. The outcomes of the study suggested that there is no long-term association between tourism and the economy of Nepal, which was not what the researchers had anticipated discovering. This points to the possibility that tourism did not have a significant and lasting impact on the overall economic development of Nepal throughout the time range that was investigated. Bhatti and colleagues (2022) investigated the long-term impact that globalization and tourism had on GDP throughout the period of 1995-2020 by making use of a method known as autoregressive distributed lag, or ARDL for short. The results of the study indicated that globalization and tourism have a significant and lasting influence on the GDP over the long run. In addition, the researchers indicated that as part of their recommendations for policymaking, policymakers should explore new locations for economic growth in addition to maintaining the economy that is already in place.

While previous studies have explored the impact of tourism receipts on economic development, there is a noticeable research gap in the temporal and spatial heterogeneity of this relationship across selected Asian countries. Specifically, the impacts of political, cultural, and environmental factors on the aforementioned relationship have not been comprehensively studied. For instance, different countries or regions within countries may exhibit diverse responses to tourism receipts due to unique political stability, culture, or environmental factors, affecting the tourism sector and, subsequently, the economic development. Additionally, the impact of tourism receipts on economic development may also vary over time due to changes in these factors. Moreover, there is an evident lack of research on the long-term effects of tourism receipts on economic development. Previous studies have primarily focused on immediate or short-term effects, overlooking potential long-term effects, which may present a different outlook on the sustainability of tourism-led growth.

Lastly, the role of tourism receipts in stimulating other sectors of the economy in Asian countries has been underexplored. While tourism might directly contribute to the GDP, its indirect impacts through the stimulation of other sectors such as agriculture, infrastructure, and services could also play a significant role in economic development. Therefore, future research should aim to fill these gaps, providing a more nuanced understanding of the impact of tourism receipts on economic development across Asian countries.

3. Data and Methodology

This study makes use of annual data on foreign tourism earnings for certain Asian nations that were acquired from the World Development Indicator (WDI) database. These receipts come from tourists coming from outside of the country. The purpose of this study is to investigate the relationship that exists between a number of different characteristics and the GDP of these countries. In order to accomplish this objective, a procedure known as panel co-integration is used to the whole data encompassing the years 1995 through 2021 and then analyzed. The purpose of this study is to investigate the interconnections that exist between the many Asian nations that are represented on the panel. The study utilizes Levin, Lin & Chu test and Im, Pesaran & Shin W test for examining unit root problem. Moreover, Pedroni Co-integration and Fisher Co-integration tests are utilized for cointegration among variables. The estimates are measured by Fully Modified OLS and Dynamic OLS techniques. This current study, which was utilized to investigate the relationship between GDP and a variety of parameters such as investment, trade openness, population, and tourism receipts, can be summarized as follows:

$$GDP = f (TREC, INV, POP, TR)$$

The representation of the equation written above is as follow;

 $GDP = \beta 0 + \beta 1TRECt + \beta 2INVt + \beta 3POPt + \beta 4TRt + \mu t$

Where, TREC is Trade openness, INV is Investment, POP is Population and TR is Tourism receipts. Tourism receipts have been taken as % of GDP. Population is taken in log form. Trade openness and investments have also been taken as % of GDP.

(2)

4. Results and Discussions

4.1. Panel Unit Roots

The tables 1 and 2 contain the outcomes that were obtained during the LLC examination. The findings of the analysis are presented in the first table, which depicts the state of affairs after all of the variables have reached their respective values. Because the value of the t-statistic for each variable is higher than the critical values, we have no choice but to accept the null hypothesis, which states that none of the variables are stationary at their respective levels of analysis. The results of the LLC test are summarized in the second table, which depicts the situation in which all of the variables have reached their initial disparities. We are forced to conclude that the null hypothesis that all of the variables are non-stationary at I(1) cannot be correct because the value of the t-statistic is lower than the critical values in this particular instance. Instead, the alternative hypothesis that all of the macroeconomic variables are stationary at I(1) is accepted as valid by this body of research.

Table 1: LLC test (at level)

Macroeconomic Variables	Without trend	P-value	With trend	P-value
INV	1.361	0.93	8.107	1.000
TR	1.398	0.909	1.604	0.945
LPOP	1.522	0.936	5.156	1.000
GDP	5.387	1.000	10.261	1.000
TERC	9.887	1.000	15.044	1.000

Table 2: LLC test (at 1st difference)

Macroeconomic Variables	Without trend	P-value	With trend	P-value
INV	-4.753	0.000	-2.403	0.000
TR	-5.389	0.000	-2.751	0.000
LPOP	-10.662	0.000	-18.791	0.000
GDP	-13.501	0.000	-10.267	0.000
TREC	-65.651	0.000	-77.880	0.000

This distinction is important as it indicates that while the variables are non-stationary in their levels, they become stationary when differences are taken, which is a common property in time series data known as being integrated of order one, or I(1).

Table 3: IPS test (at 1 st difference)					
Macroeconomic Variables	Without trend	P-value	With trend	P-value	
INV	-9.198	0.000	-7.649	0.000	
TR	-10.943	0.000	-5.735	0.000	
LPOP	-9.272	0.000	-16.416	0.000	
GDP	-15.072	0.000	-12.332	0.000	
TREC	-19.287	0.000	-20.155	0.000	

The results of the IPS test with all the variables at their first differences are presented in table 3, which may be seen here. Because the value of the t-statistic is lower than the critical values in this case, the null hypothesis that all of the variables are non-stationary at their first differences must be rejected because of this finding. Instead, we accept the competing hypothesis, which states that all of the variables are stationary at the point where they first vary. There are important repercussions that may be drawn from these findings. They imply that even though the variables are non-stationary at their levels, once they reach their first differences, they achieve stationarity and become constant. This property, known as being integrated of order one or I(1), is frequently observed in time series data.

4.2. Panel Co integration Test

To estimate the long-term relationship among GDP, investment, trade openness, population, and tourism receipts in selected Asian countries, this study employs the Pedroni (1999, 2000) co-integration tests. These methodologies allow us to discern whether a long-term

equilibrium relationship exists among these economic variables across different countries in Asia, while accommodating potential differences in these relationships across different countries (heterogeneity).

	integration			
	Statistic	Probability	Weighted statistic	Probability
Panel v –Statistic	-1.891	0.970	-5.995	1.000
Panel rho- Statistic	1.005	0.856	0.691	0.755
Panel PP-Statistic	-13.355	0.000	-18.086	0.000
Panel ADF-Statistic	-11.351	0.000	-14.351	0.000
Group rho-Statistic	2.898	0.998		
Group PP-Statistic	-22.739	0.000		
Group ADF-Statistic	-13.926	0.000		

Table 4: Pedroni co-integration test

The findings of the tests conducted within each dimension as well as the tests conducted between each dimension suggest that the null hypothesis positing that there is no co-integration can, in the majority of instances, be rejected. This suggests that there is a relationship of long-run equilibrium between the variables that were investigated in this study. As a consequence of this, one can get the conclusion that economic growth, tourism receipts, trade openness, investment, and population are all intertwined in the selected panel of Asian countries during the course of the period from 1996 to 2021. This provides evidence that, over the course of a lengthy period of time, these variables move together, and that changes in one variable are connected with changes in the others.

The table 5 shows the results of fisher co integration test. It is obvious from the table that three co integrating vector exists. It indicates that long run relationship is found among GDP, tourism receipts, investment, trade openness and population.

Johansen hypothesized	Fisher test from trace	Probability	Fisher test from	Probability
no of CE	value		Eigen value	
None	1360	0.000	1015	0.000
At most 1	784.2	0.000	542.4	0.000
At most 2	362.1	0.000	275.3	0.000
At most 3	157.1	0.000	33.6	0.000
At most 4	112.5	0.000	112.5	0.000

Table 5: Findings of Johansen Fisher Test of Co-integration

Table 6: The Results of FMOLS Model

Variables	Coefficients	Standard Errors	t-statistic	Probability		
TREC	0.0245	0.017	2.28	0.022		
INV	0.1683	0.014	11.47	0.000		
TR	0.0082	0.001	5.28	0.000		
LPOP	-0.1017	0.02	-4.181	0.000		

The outcomes of the FMOLS model are detailed in table 6, which may be seen below. According to the data, population has a detrimental effect on GDP: there is a 10% drop in economic growth for every percentage point rise in population. On the other hand, receipts from tourism have a big and good impact on the expansion of the economies of the selected Asian countries. Tourism is widely recognized as an important driver of long-term economic expansion as well as a significant contributor to countries' overall foreign exchange holdings. Moreover, investment has a positive effect on gross domestic product, which indicates that as investment in a country increases, so does the rate of economic growth in that country. The degree to which countries in Asia are willing to engage in free trade has a materially beneficial bearing on economic growth in those countries.

Table 7: The results of DOLS model

Variables	Coefficients	Standard Errors	t-statistic	Probability
TREC	0.013	0.001	0.720	0.471
INV	0.170	0.027	6.185	0.000
TR	0.007	0.002	2.779	0.008
LPOP	-0.107	0.045	-2.235	0.025

The table 7 indicates the results of DOLS model. It is clear from the table that population put negative impact on GDP as population increases economic growth decreases by 10%. Tourism receipts leave significantly positive impact on economic development in case of selected Asian countries. Tourism is considered an important tool for sustainable economic growth and also a major foundation of foreign exchange earnings. The investment has also positive impact on GDP as investment increases in the country economic growth also increases. The trade openness also has significantly positive impact on economic development in case of selected Asian countries.

4. Conclusions and Policy Recommendations

The purpose of current research is to inspect the impact of tourism receipts, trade openness, investment, and population on the economic growth of selected Asian countries from 1995 to 2021. Tourism receipts are explained as a percentage of GDP, as are other variables such as trade openness and investment, while the population is represented in logarithmic form. The concerned data have been collected from the WDI (WDI, 2015) to examine the short and long run relationship among macroeconomic variables. To determine the stationarity of the macroeconomic variables, the LLC and IPS methods were utilized. The results of these tests indicate that all variables are stationary at first differences.

The Pedroni Co-integration test discloses the existence of a co-integrating relationship among the variables under consideration. Additionally, the Johansen Fisher test indicates the presence of three co-integrating vectors in the model. Both the methods though fully modified (OLS) as well as Dynamic (OLS), have been used to examine both the short and long-run elasticities. The findings from these models suggest that tourism receipts, trade openness, and investment had an important and positive effect on economic development of the selected Asian economies. Further, the study employs the Granger causality test to discern causal relationships among the variables. Bidirectional causality is observed among the variables for the chosen Asian countries. The study emphasizes the significance of the tourism sector in positively influencing economic growth, particularly in the context of Pakistan. It recommends that governments should allocate greater attention and resources to this sector. Policy frameworks should be designed to include comprehensive measures aimed at fostering the development and improvement of the tourism sector.

References

- Akbar, I., Myrzaliyeva, Z. K., Tazhekova, A. Z., Saulembayev, A. T., & Kenzhebay, R. N. (2021). Evaluation of the community-based ecotourism development status in the Aksu-Jabagly nature reserve, Kazakhstan. *Geo Journal of Tourism and Geosites*, 35(2), 381-389. doi:<u>https://doi.org/10.30892/gtg.35216-662</u>
- Akkemik, K. A. (2012). Assessing the importance of international tourism for the Turkish economy: A social accounting matrix analysis. *Tourism management, 33*(4), 790-801. doi:https://doi.org/10.1016/j.tourman.2011.09.002
- Arslanturk, Y., Balcilar, M., & Ozdemir, Z. A. (2011). Time-varying linkages between tourism receipts and economic growth in a small open economy. *Economic Modelling*, 28(1-2), 664-671. doi:<u>https://doi.org/10.1016/j.econmod.2010.06.003</u>
- Balaguer, J., & Cantavella-Jorda, M. (2002). Tourism as a long-run economic growth factor: the Spanish case. *Applied economics, 34*(7), 877-884. doi:https://doi.org/10.1080/00036840110058923
- Bhattarai, K., & Karmacharya, R. (2022). Impact of Tourism on Economic Growth of Nepal: Is Tourism-Led Growth Hypothesis Valid for Nepal? *The Gaze: Journal of Tourism and Hospitality*, 13(1), 93-110.
- Damji, K., & Feisal, A. (2005). Chronic open angle glaucoma. *Review for Primary Care Physicians. Canadian Family Physicians, 51*(9), 1229-1237.
- Das, R. K., & Chakraborty, J. (2012). An evaluative study on tourism in Bangladesh. *Developing Country Studies, 2*(1), 17-27.
- Dossou, T. A. M., Ndomandji Kambaye, E., Bekun, F. V., & Eoulam, A. O. (2023). Exploring the linkage between tourism, governance quality, and poverty reduction in Latin America. *Tourism economics*, 29(1), 210-234. doi:<u>https://doi.org/10.1177/13548166211043974</u>
- Dritsakis, N. (2004). Tourism as a long-run economic growth factor: an empirical investigation for Greece using causality analysis. *Tourism economics*, *10*(3), 305-316. doi:https://doi.org/10.5367/000000041895094

- Fang, W.-T., & Fang, W.-T. (2020). Rural tourism. *Tourism in Emerging Economies: The Way We Green, Sustainable, and Healthy*, 103-129.
- Fleischer, A., & Felsenstein, D. (2000). Support for rural tourism: Does it make a difference? Annals of tourism research, 27(4), 1007-1024. doi:<u>https://doi.org/10.1016/S0160-7383(99)00126-7</u>
- Garidzirai, R., & Pasara, M. T. (2020). An analysis of the contribution of tourism on economic growth in South African provinces: A panel analysis. *Geo Journal of Tourism and Geosites*, 29(2), 554-564. doi:<u>https://doi/10.30892/gtg.29214-489</u>
- Gokovali, U., Bahar, O., & Kozak, M. (2007). Determinants of length of stay: A practical use of survival analysis. *Tourism management*, 28(3), 736-746. doi:https://doi.org/10.1016/j.tourman.2006.05.004
- Kim, H. J., & Chen, M.-H. (2006). Tourism expansion and economic development: The case of Taiwan. *Tourism management,* 27(5), 925-933. doi:https://doi.org/10.1016/j.tourman.2005.05.011
- Martin, L. (2004). New Demand Factors in Tourism. *NIT Prof. Dr. Martin Lohmann Wrangelstr.* 16D–24105 Kiel. Mirbabayev, B., and M. Shagazatova,(undated)."The Economic and Social Impact of Tourism.
- Martín, M. B. G. (2005). Weather, climate and tourism a geographical perspective. *Annals of tourism research*, *32*(3), 571-591. doi:<u>https://doi.org/10.1016/j.annals.2004.08.004</u>
- Mowforth, M., & Munt, I. (1998). Tourism and Sustainability: New Tourism in the Third World (London and New York. In: Routledge.
- Mushtaq, A., & Zaman, K. (2013). Impact of macroeconomic factors on tourism receipts: evidence from SAARC region. *European Economic Letters, 2*(2), 38-43.
- Ridderstaat, J., Croes, R., & Nijkamp, P. (2014). Tourism and long-run economic growth in Aruba. *International Journal of Tourism Research, 16*(5), 472-487. doi:<u>https://doi.org/10.1002/jtr.1941</u>
- Sajjad, F., Noreen, U., & Zaman, K. (2014). Climate change and air pollution jointly creating nightmare for tourism industry. *Environmental Science and Pollution Research, 21*, 12403-12418. doi:<u>https://doi.org/10.1007/s11356-014-3146-7</u>
- Samimi, A. J., Sadeghi, S., & Sadeghi, S. (2011). Tourism and economic growth in developing countries: P-VAR approach. *Middle-East journal of scientific research, 10*(1), 28-32.
- Su, Y., Cherian, J., Sial, M. S., Badulescu, A., Thu, P. A., Badulescu, D., & Samad, S. (2021). Does tourism affect economic growth of China? A panel granger causality approach. *Sustainability*, 13(3), 1349. doi:<u>https://doi.org/10.3390/su13031349</u>
- Teelucksingh, S. S., & Nunes, P. A. (2010). Biodiversity valuation in developing countries: A focus on small island developing states (SIDS).
- Thompson, A. (2011). Terrorism and tourism in developed versus developing countries. *Tourism* economics, 17(3), 693-700. doi:<u>https://doi.org/10.5367/te.2011.0064</u>
- Uysal, M., Sirgy, M. J., Woo, E., & Kim, H. L. (2016). Quality of life (QOL) and well-being research in tourism. *Tourism management, 53*, 244-261. doi:https://doi.org/10.1016/j.tourman.2015.07.013
- Yang, C.-H., Lin, H.-L., & Han, C.-C. (2010). Analysis of international tourist arrivals in China: The role of World Heritage Sites. *Tourism management, 31*(6), 827-837. doi:<u>https://doi.org/10.1016/j.tourman.2009.08.008</u>