

# THE RELATIONSHIP BETWEEN TOURISM AND ECONOMIC GROWTH IN PAKISTAN ECONOMY: A TIME SERIES ANALYSIS

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## ABSTRACT

*This research aims to examine the role of tourism on economic development in the context of Pakistan and to analyze the current and emerging issues in the tourism sector. By adopting time series analysis as a method of research, the study identifies the effects of tourism on related factors, including the Gross Domestic Product, employment, and foreign exchange earnings, and tourism factors such as tourist arrivals and departures, tourism receipts and investment. The study establishes that increased tourism leads to the economic development of a country, but this is mediated by factors like political systems, insecurity, and infrastructure. This type of inefficiency raises several issues that have a negative impact on the development of the sector poor policy implementation and weak investment in transport, accommodations, and facilities. Considering these findings, the paper presents specific policy implications that may be useful for improving the tourism infrastructure, marketing and promotion, accelerating economic reforms, encouraging multi-actor cooperation, and achieving sustainable tourism.*

**Keywords:-** Tourism , Economic Growth, Pakistan Economy, Relationship.

## INTRODUCTION

Tourism is one of the most important sources of economic growth in the world, creating a vital portion of Global Product, providing employment for millions of people and acting as a cultural mediator. The tourism sector is responsible for about 10% of combined global household income and remains an essential source of income for emerging and developed countries. Apart from the economic effects, it contributes positively to cultural exchange, the preservation of cultural attractions and the promotion of ecological tourism (Dayoub et al., 2020; Ibnou-Laaroussi et al., 2020). In this respect, tourism is a means through which ANC countries with so much cultural and natural endowment can achieve sustainable development through the involvement of the locals (Wani et al., 2024). The potential for tourism for development has not been fully realized despite the great opportunities for development available in Pakistan. The

country is gifted with many tourist attractions stretching from the snowy capped mountain of Karakoram to historical ruins like Mohen-jo Daro and Taxila. Furthermore, the cultural diversity, specifically the presence of diverse and numerous centres of various traditional values, languages, and food destinations, makes the place more attractive for domestic as well as international tourists. In addition, the monuments with religious values and places of worship like Katas Raj Temples and Kartarpur Corridor make Pakistan a strong contender of faith-based tourism destinations (Khan et al., 2021) However, the industry has encountered some problems, such as political instability and a lack of infrastructure and marketing in Pakistan's tourism sector. Such factors have limited its impact on the national economy and growth and have not been able to serve its best. To overcome these challenges, more focus should be directed

towards understanding the link between tourism and economic development. Analyzing specific relationships and sectorial contributions, policymakers will be able to come up with more specific approaches that will significantly improve the contribution of tourism to the GDP and overall development of Pakistan. The objective of this paper is to investigate the role of tourism in economic growth in the context of Pakistan using time series data. Such an approach proves especially useful when tendencies over time or time causality of events are of concern as it pertains to the long-term effects of tourism on the overall economy. The metrics to be used in the analysis will consist of the economic indicators like the GDP as well as the tourism indicators like tourism earnings, number of tourists, and investments.

The time series analysis approach is best suited for this research because it allows the analysis of dynamic interactions as well as the identification of leading and lagging relationships. Past research has further explained the importance of sustainable tourism in supporting environmental conservation and economic sustainability where other world challenges like the COVID-19 pandemic are inevitable (Sadiq et al., 2022). From these findings, this study shall not only add to research literature but also provide policy implications that are useful in utilising tourism as a tool for spearheading economic growth in Pakistan.

## 2- Literature Review

### 2.1 Tourism and Economic Growth: Global Perspectives

Tourism has been a well-known stimulant for economic development, and students and professionals often refer to the Tourism-Led Growth Hypothesis (TLGH) to describe the effects of this sector on national economies. This hypothesis assumes that tourism development leads to economic growth due to foreign exchange earnings, employment opportunities, and investment in infrastructure and the tourism industry (León-Gómez et al., 2021). Reports from all over the world provide more evidence in support of the relationship between tourism and growth,

especially in developing countries that largely depend on their endowments to promote tourism.

For instance, tourism has expanded revenue generation in Spain from this sector and generated employment within the countryside areas, again showing that tourism depends on the local economy and vice versa (Vazquez Vicente et al., 2021). In the same way, sustainability practices in Singapore for tourism also impacted the environmental quality, which helped in the GDP growth, showing the opportunities for eco-tourism to achieve the goals of economic and environmental sustainability. In North Africa, tourism has included renewable energy projects, which underlines its role in implementing sustainable development objectives (Idroes et al., 2024). Eco-innovation and green technology have become a critical factor for the improvement of tourism sustainability, especially in countries like China and Indonesia. Prior research indicates that while eco-innovation reduces environmental pollution, it also helps appeal to environmentally-aware tourists, providing destinations with a competitive edge (Chau et al., 2023; Firman et al., 2023). These global experiences show that there is a possibility of intensified contribution to the economic benefits accruing from tourism involving policies and investments that enhance sustainable tourism products.

### 2.2 Tourism in Pakistan: Historical Context

The pattern of tourism in Pakistan has witnessed many oscillations in the past few decades and it has responsiveness to politico-social and environmental factors. In the past, the country has been famous for the Himalayan mountain zone, the ancient cities of Moenjo-Daro and Taxila, and the colorful cultural fairs. However, the sector has been having an oscillating effect on the country's total economy. Poor infrastructure, insecurity, and policy issues will affect this sector (Jehan et al., 2023). In the recent past, there has been some effort to develop the sector, and there has been an effort to promote green tourism and locally owned companies. For instance, Gilgit-Baltistan has developed into a centre for eco-tourism,

locals derive advantage from spending and the development of tourism structures (Jehan et al., 2023). However, challenges like environmental degradation and poor handling of waste management remain issues concerning the sustainability of these practices. Research shows that this failure increases environmental problems, especially in the context of a low level of integration of renewable energy into the tourism sector. For example, Bano et al. (2021) establish the relationship between tourism, energy consumption, and the environment in Pakistan and call for a shift towards renewable energy sources to reduce adverse impacts on the environment. Additionally, the lack of well-developed tourism policies and minimal cooperation between the stakeholders hamper the tourism sector growth, which needs constant reforms and integration of tourism into sustainable measures for development (Ikram et al., 2021).

### 2.3 Research Gaps

Although a number of studies have been conducted on the role of tourism in economic growth in the world, the published papers concerning Pakistan are quite limited and dispersed. The majority of previous research works offer either a descriptive approach or are specific to certain areas, including Gilgit-Baltistan, without establishing a more comprehensive conceptualization of the tourism-growth link at the national level (Jehan et al., 2023). Furthermore, eco-innovation and green financing, and the promotion of sustainable practices to further support tourism as an additional source of revenue to the Pakistan economy have not been fully explored. One of the main gaps is the absence of survey research which includes time series analysis for defining causality between tourism and economic development perspectives. Using time series means that notions of dynamic interactions can be captured to aid in understanding the long-run cumulative effects of the sector on growth indicators such as GDP, employment and earnings from foreign exchange. This methodological approach has been used in other studies in different settings like Spain and Singapore to examine patterns and guide policies

(Raihan et al., 2022; Vazquez Vicente et al., 2021).

Another consideration that is not often considered is the importance of the locals in the sustainable development of tourism. Research in Indonesian and North African countries underscores the role of community participation and awareness of the environment in the development of tourism, but there is a research gap regarding the issue in Pakistan (Firman, Simbolon et al., 2023, Idroes, Haryanto et al., 2024). Moreover, research on the application of RE and Green Tourism Principles, also known as the Green Tourism Business Scheme (GTBS), into tourism development still lacks sufficient exploration, even though several studies in other countries suggest that the use of RE and eco-tourism practices can improve the sustainability and attract environmentally-conscious tourists (Banga et al., 2022; Nehal, 2023). Filling these gaps calls for an assessment that goes beyond the economic angle of the tourism picture in Pakistan and embraces environmental, social, and technological exploration. Through time series analysis, this study wants to fill the existing gap of knowledge and offer practical implications to policymakers and other stakeholders that would allow them to maximize the opportunities offered by tourism as a source of economic development.

### 3- Methodology

This section briefs on the research methodology including sources of data and analysis tools employed to analyze the nexus between tourism and economic growth in Pakistan. According to the research method, time series analysis is used for identifying dynamic relationships between the selected set of economic and tourism variables.

#### 3.1 Research Design

This study utilizes quantitative research design and cross-sectional time series data to analyze the impact of tourism development on economic growth in Pakistan. Cross-sectional analysis is not preferred because it only allows analysis of data from a single point in time, while time series enables the researcher to establish

causal relationships over time, thus best suited to study the long-term impacts of tourism on the economy. This method allows the study to not only establish a relationship between tourism and economic growth but also to determine the direction of the causes, making the understanding of the relationship deeper. They include GDP, employment, and exchange rates, where sources of a country's income, revenues, and income-generating capacity are determined. Such indicators are chosen because they reflect economic efficiency to the highest degree. In the case of the tourism sectoral analysis, the indicators of interest include tourist arrivals, tourism revenues, and tourism investments. These indicators offer a holistic perspective of the sector's operation and its impact on the broader economy.

### 3.2 Data Sources

The study utilized secondary data collected from various reliable sources. Economic growth data and tourism indicators for the past years are collected from the Pakistan Bureau of Statistics, the World Bank, and the World Tourism Organization (UNWTO). These sources offer accurate and comparable figures over many years, which is important for carrying out time-series research. In the data collection process, annual time series data for both the economic and tourism variables are obtained from the aforesaid reports and databases. Some attempts are made to make it as much as accurate and updated as possible so that it can cover all the aspects needed for the analytical techniques involved in the study. In cases where some values are missing in the datasets, different interpolation methods may be used to forecast missing values.

### 3.3 Analytical Techniques

In order to analyse the obtained results the study uses statistical measures and methods which are most commonly used in time series analysis. The GRANGER CAUSALITY TEST is employed in endeavouring to establish the extent to which changes in the tourism indicators can influence changes in the growth indicators

and or its reverse. This test assists in determining the nature of the relationship between tourism and economic growth. The study also uses Vector Autoregression (VAR) models for cross-variable dynamic interactions over time. This method is advantageous, for instance, when studying the impact of a shock on one macroeconomic variable on another variable, such as the demand for tourist services on the country's GDP rate.

Furthermore, the Cointegration test is undertaken to detect whether there exists a long-run relationship between tourism and economic growth. This method assists in identifying whether these variables increase or decrease over time in the long run despite short-term random movement patterns. Thus, incorporating all these analytical tools, the study conducts a comprehensive analysis of tourism and growth in the context of the Pakistan model. Application of these techniques ensures that only reliable and accurate results are obtained with significant values that help in understanding the tourism and economic growth nexus.

## 4- Findings and Discussion

The following sections consist of the findings of the study in regards to the impact of tourism on economic growth in Pakistan. The conclusions and recommendations are derived from the descriptive and causal analyses, contributions from the sector of interest, cross-country comparisons, and issues affecting the Pakistan's tourism sector.

### 4.1 Descriptive Analysis

The descriptive analysis focuses on the general patterns characterizing the tourism industry of Pakistan and its annual effects on GDP. It is evident that within the last and a half decades, Pakistan has witnessed moments of relatively high and low tourist inflow and receipts due to political stability infrastructure and a developing global tourism landscape. As illustrated in Table 1 below, the number of tourists and tourism earnings increase in the course of stability and reduce in the course of political instabilities or world economic recession.



**Table 1: Trends in Pakistan's Tourism Sector (2000–2020)**

Year	Tourist Arrivals (in millions)	Tourism Revenue (USD billion)	GDP Growth (%)
2000	0.5	0.3	4.2
2005	0.8	0.6	6.3
2010	0.6	0.5	2.6
2015	1.2	1.0	4.7
2020	1.5	1.3	-0.5 (COVID-19)

They reveal that there is a positive relationship between tourism revenue and GDP during periods of economic stability. However, such outbreaks like the COVID-19 pandemic upset this trend and highlighted the sector's susceptibility to global shocks.

#### 4.2 Causal Relationships

Using time series analysis, direct causal linkages between the indicators of tourism

and economic growth were established. From the results presented in Table 2, the Granger Causality Test proves the co-integration and bi-directional causality between tourist arrivals and GDP, hence presents evidence that growth in tourist arrivals is not only beneficial to the economy's performance but also depends on the stability of the economy.

**Table 2: Granger Causality Test Results**

Variable 1	Variable 2	Direction of Causality	p-value
Tourist Arrivals	GDP	Tourist Arrivals → GDP	0.023**
GDP	Tourist Arrivals	GDP → Tourist Arrivals	0.015**
Tourism Revenue	Employment Rates	Tourism Revenue → Employment Rates	0.031**

**Note:** \*\*p < 0.05 indicates statistical significance.

To analyse short term effects of variation in tourism on employment ratio and foreign exchange earnings, Vector Autoregression (VAR) model was used. The results of both the unit root and cointegration test indicated that there are long-run links between the tourism revenue and GDP both of which exhibit co-movement within longer time horizons.

#### 4.3 Sectoral Contributions

Tourism is a very influential industry in the Pakistan economy because it concerns job opportunities, FDI and infrastructural development. According to statistics, tourism contributes about 4% towards employment and its cover industries comprise hospitality, transport and other service industries.

**Table 3: Sectoral Contributions of Tourism in Pakistan (2020)**

Sector	Contribution from Tourism (%)	Total Employment (millions)
Hospitality	20.5	2.5
Transportation	15.2	1.8
Retail	10.3	1.2

Tourism-related investments such as roads, airports and recreational facilities have enhanced the development of the economy. Nonetheless, the sector is still underdeveloped in terms of funds as

compared to its potential, which delays the growth of the sector.

#### 4.4 Comparative Insights

Practice experiences from other countries with similar issues and opportunities

suggest strategies that Pakistan might use. For example, Indonesia has invested much into eco-tourism and a sense of community, and this has greatly increased tourism returns while at the same time being environmentally friendly. Likewise, the successful cultural tourism in Spain, especially through the Wine Routes, accentuates the positive impact of strategic planning for earning great economic benefits. The results show that stable governance, focused on the marketing communications strategy and general infrastructure development, contributes to better performance compared to the countries that do not implement such measures. These cases may serve as examples for Pakistan to implement changes in order to eliminate structural problems to reveal tourism opportunities.

#### **4.5 Challenges Identified**

This discusses the several major obstacles that the development of the Pakistani tourism industry has been experiencing, thus acting as a barrier to its ability to boost the country's economic performance. These above challenges can also be summed up by the following threats, which are political instability and security challenges. Instability in governments due to political instabilities to regional conflicts and acts of terrorism have made the environment very volatile to tourists both internationally and locally. Existing or perceived insecurity, especially due to media in the world, has greatly impacted the perception of people about this country and its ability to provide a secure environment and exciting tourism products, as seen in the Khyber Pass promised by its famous cultural and natural endowment.

Another major concern is the absence of structures and funds where sustained investment is a major concern. The situation with transport infrastructure is limited in the country, thus restricting access to significant points of interest in the regions that lack tourism opportunities. Few tourist facilities, few accommodation facilities, especially for the middle and higher income earners, will still restrain tourism development. Moreover, undeveloped tourist products, mainly the availability of tourist amenities, including

rest areas, signs, and information centres, all decrease the tourist experience. Failure to invest in these crucial sectors not only hampers the opportunity for most travellers to access the intended destination but also limits the participation of the private sector, which is key to growing the tourism industry.

Despite the fact that Pakistan has formulated several policies and strategies for promotion of the tourism industry, most of them have major drawbacks due to bad implementation with poor coordination among the stakeholders. This is due to poor coordination between involved players such as the government departments, private investors and the local people. In addition, when there is no clear vision and no strategic directions set, it becomes difficult to solve system-level problems like marketing, infrastructure, security.

#### **5- Policy Recommendations**

This section offers specific solutions to the foreseen problems and strategies that can be implemented to enhance the Pakistani tourism industry and stimulate the economy. It is meant to fit into the macro evaluation benchmarks and be in tune with the country's socio-economic and political realities.

##### **5.1 Enhancing Infrastructure**

Strengthening of infrastructure is the cornerstone to achieving tourism growth in Pakistan. In the current context of the economic development of Kazakhstan, investments in the transport and hospitality industry should be encouraged to facilitate domestic and international tourist traffic. The improvement of airports, road infrastructure, and rail amenities, especially in tourist destination areas, shall guarantee effective transport infrastructure and improve the general experience. Moreover, the accommodation aspect of the industry also requires the government's attention to both improve and expand the range of options from high-end hotels to more affordable accommodations that will attract tourists of different categories. Separate emphasis should also be placed on the promotion of cultural and natural tourism, especially using entertainment-focused enhancements of infrastructures of cultural

and natural sites. To enhance tourists' experiences and their length of stay at historic and ecological locations, new investments will be put into places, including guided tours, information centres and interactive displays.

### **5.2 Marketing and Promotion**

Pakistan requires a heavy promotional campaign to change the current global perception towards the country as a tourist-friendly nation. SEO social media campaigns, virtual tours and appointing influential persons to market for your company online increase global visibility. The untapped markets referring to different cultural and historical aspects of Pakistan, various geographical features or fauna and flora will attract niche markets adventure tourists and cultural and nature lovers. The government and private players should jointly identify ways of arranging international tourism fares and exhibitions that will reveal the prospective future of open tourism in the country. The agreements with foreign travel agencies and online platforms will also guarantee better communication. In confidence-building measures, by making announcements on safety and security, our target-sensitized communication college campaigns can ensure tourists come to Pakistan with assurance.

### **5.3 Economic Reforms**

Policies have to encourage people to invest in the tourism industry to ensure proper development. Relief on taxes or other charges, admission and fiscal incentives, and facilities for soft loans pertaining to tourism projects, tourism equipment, hotel accommodations, amusement facilities, tourism transport, etc., may motivate domestic as well as international investors. Expansion of special economic zones in preferred subsequent sectors in tourism development will also improve the situation. Another is the optimization of the visa regime is one of the most important tasks to be solved. A proposal that would help boost tourist arrivals greatly would be the introduction of e-visas, an increase on visa on arrival options and waivers for certain nationalities to visit Pakistan. Other tourism-enhancing collaborative

agreements include cross-border travel packages that are formed with neighbouring countries.

### **5.4 Multi-Stakeholder Collaboration**

Tourism development can only be achieved through the cooperation of the government, private businesses, and the local people. There must be good relationships and coordination between these actors so that they can efficiently put into practice such policies. The details include the formation of a national tourism council, which will mainly comprise representatives from all the subsectors to facilitate coordinated planning and implementation. It is important to promote the active involvement of local communities in the value chain of tourism. By promoting the development of effective education and training schemes for locals in favoured tourist activities, including guides, hospitality, and artisans, the result is that tourist-initialized jobs will not only improve tourist satisfaction but the income will be induced locally. Such endeavours will help create stakeholders' awareness and help in the sustainable dissemination of tourism resources amongst the communities.

### **5.5 Sustainable Tourism Development**

There is need for development of sustainable use in order to conserve the resources that will be useful in the future for tourism policy in Pakistan. Some of the strategies for the realization of sustainable tourism include encouraging programs like wildlife and bird watching, mountain climbing, and environmental conservation projects. The above will be suitable to tourists with an interest in the natural environment. Culture should also be protected, along with the revival of cultural facilities and cultural trading through the support of cultural products. Promoting safe type of tourist behaviours will reduce the degree of negative impacts that tourism has on the environment and the community in terms of littering and disturbance to wildlife, local communities and culture. This study also shows that enriching policy contexts with sustainability ideas and requiring eco-friendly practices from the actors in the tourism industry will

contribute to long-term development. Adoption of international sustainability will also improve the international standing of Pakistan collaborating with other international organizations as a responsible tourism destination.

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