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ECONOMIC CONTRIBUTION OF TOURISM IN GILGIT-BALTISTAN, PAKISTAN

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Abstract

This study aims to assess the economic impact of tourism in Gilgit-Baltistan, Pakistan, focusing on its contribution to key economic indicators. The study uses a comprehensive research methodology and data collection techniques to examine tourism's direct and indirect effects on the local economy. The research encompasses various tourism-related sectors, including accommodation, transportation, food and beverage, and attractions. The study employs the Tourism Satellite Account (TSA) framework and Granger Causality to find the data and causal relationship among the variables, which allows for a systematic analysis of tourism's economic impact. It investigates indicators such as gross domestic product (GDP), tourist arrivals and spending. Primary data is collected through baseline surveys, while secondary data is obtained from government reports, statistical databases, and industry and research publications. Preliminary findings reveal that tourism significantly affects the region's economy. It contributes to GDP growth by stimulating tourism, generating employment opportunities, and attracting investments. Additionally, tourism-related activities contribute to tax revenue, enhancing public infrastructure and services. Overall, this study provides valuable insights into the economic impact of tourism, offering a comprehensive analysis of its contribution to the Gilgit-Baltistan economy. The findings can guide policymakers, destination management organisations, and tourism stakeholders in formulating strategies to maximise the economic benefits of tourism while addressing associated challenges.

Keywords: Tourism Economics, Tourists Arrival, Granger Causality, Gilgit-Baltistan, Pakistan

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INTRODUCTION

Tourism has emerged as a significant driver of economic development in the modern globalized society. It plays a crucial role in generating income and employment in the economy's formal and informal sectors. Globally, the tourism industry accounted for approximately one out of every eleven job positions in 2016, resulting in a staggering 277 million jobs (UNWTO, 2017). In the case of Pakistan, tourism makes a notable contribution to the country's economy, constituting 2.8% of the total GDP, equivalent to Rs. 328 million (WEF, 2015). Recognizing the immense potential of tourism, the current Government of Pakistan is dedicated to giving it special attention and maximizing the benefits of this sector. It has set an ambitious goal of tourism contributing Rs. 1 trillion to the economy by 2025. The government's commitment to promoting tourism highlights the recognition of tourism's role in economic growth and its potential to create employment opportunities, stimulate entrepreneurship, and attract foreign investment. Pakistan is poised to become a significant player in the global tourism market with its diverse landscapes, rich cultural heritage, and untapped potential. Gilgit-Baltistan is famous for tourism and hospitality (Latip et al., 2021; Karim et al., 2020). This region is blessed with a unique cultural heritage, beautiful landscape, biodiversity and mighty mountains that attract tourists worldwide. The world-famous mountain ranges- Hindukush, the Himalayas and the Karakoram (HKH)- are located in northern Pakistan (Gilgit-Baltistan). The flow of tourists to Gilgit-Baltistan is at increasing trend as during the year 2007, total 23770 domestic and 10338 foreign tourists have visited this region whereas, the figures have reached to 6,9000 and 10000 for domestic and foreign tourists respectively. During 2017 and 2018, the total number of tourists visit this remained at 1.8 million and 2. Million, respectively (Express Tribune, 2019). These statistics indicate tourism has grown greatly in Gilgit-Baltistan, and it has a greater economic impact on the region. The tourism industry's economic activities are not explicitly classified in the standard industrial classification of all economic activities. However, there is a growing recognition of the importance of the tourism industry's economic contributions (David & Philippe, 2011). A major challenge in measuring the economic impact of tourism spending is that the tourism sector is not treated as a distinct entity in national accounting. Instead, tourism-related activities are often embedded within other industries. Additionally, the informal sector plays a significant role in tourism through production and consumption, further complicating measurements (Odunga et al., 2019). Furthermore, Beynon et al. (2009) argue that data on different segments of tourism-related economic activities are often dispersed and fragmented within the statistical infrastructure. As a result, the value added by the tourism sector is typically underestimated in national economic data used by decision-makers in both government and non-governmental organizations (Odunga et al., 2019). To

address these challenges, the System of National Accounts (SNA) suggests the development of a satellite account within its framework, focusing specifically on the tourism aspect of an economy (Kolli et al., 2014). By implementing a tourism satellite account, the economic contributions of the tourism industry can be better captured and analyzed, providing decision-makers with more accurate information for policy formulation and resource allocation.

METHODOLOGY

Tourism is the primary source of foreign exchange, income, and job prosperity in many developed and developing countries. Various macroeconomic and quasi-methodologies have been used to estimate the economic impact of tourism. The majority of research that has attempted to quantify the demand for tourism has employed single equation models to explain the demand as measured by aggregates, cross-country tourist revenues or arrivals (Archer, 1976; Johnson & Ashworth, 1990). The tourism demand equation has been specified differently in several types of research. For the demand for tourism, (Sinclair, 1998) used the AIDS model. the predicted flexibility values for the assortment of locations. The proportionality values for Canadian demand for US travel to the rest of the globe were computed by Gray's study from 1966. In some studies of tourism, expansion is related to economic growth, which used time series analysis ADF, Philips Perron unit root test and J.J co-integration test to check the long run relationship between tourism receipts and GDP for Spain (Balaguer & Jorda, 2002) and Granger causality, VAR also used by (Chi-Ok Oh, 2003) for Korean economy to check the contribution of tourism and economic growth with the development of tourism. The new approach to cointegration ARDL is used by (Halicioglu, 2010) for Turkey to calculate the aggregate demand for travel and long-term elasticities. After that Input-output analysis are widely used in tourism studies in both developed and developing economies. The expansion of the tourism industry input-output analysis is also limited for this kind of study so a new approach has been introduced by the economists that are the Computable General equilibrium (CGE) model which analyze the travel and tourist problem and estimates the economic and environmental impact of tourism. The methodology which is used for economic impact assessment is the "Granger Causality" to check the causal correlation between GDP and Tourists Arrivals (Domestic and Foreign).

RESULTS AND DISCUSSION

The data has been generated by using the World Bank Report, 2010 to estimate the GB Per capita income and GDP which provides basis to calculate the contribution of tourism in the GB economy. The statistics show a significant variation in Pakistan's per capita income between 2010 and 2021. However, the largest per capita income was computed in 2018, when almost 1,678 USD was

produced. This is a huge increase over the previous two years, which saw revenue increases of 1,632 USD and 1,540 USD, respectively. The economy of Pakistan benefits greatly from tourism. Additionally, there has been a slight variation in Pakistan's PCI between 2010 and 2015; the values determined throughout the five years are 987 USD, 1,165 USD, 1,198 USD, 1,209 USD, 1,251 USD, and 1,357 USD, respectively.

Similarly, the report shows that GB Per capita income is raised continuously for six years from 2010 to 2017, the estimated GB Per capita income is 888, 1,049, 1,078, 1,088, 1,126, 1,221, 1,386, 1,469 USD respectively. The rate of GB PCI dramatically increased in 2018 with the highest growth of 1,510 USD and a sudden decrease is calculated in GB PCI 2020 with 1,224 USD. Meanwhile, the figures again raised to 1,384 in 2021. The overall PCI growth rate of GB is considerable. In addition, the estimated annual population growth rate of GB is 2.56%. On average two million mothers give birth to young ones annually. The global bank study showed that the population of GB increased consistently over the 12 years (2010 to 2021) as 1.197, 1.228, 1.259, 1.292, 1.325, 1.359, 1.393, 1.49, 1.528, 1.567, 1.607, and 1.649 million, respectively. Moreover, the report shows that the tourism industry in GB is evolving and it has a significant impact on the annual GDP of GB and the economic development of Pakistan. The data shows little variance in the average growth rate of GB GDP (USD) over the years from 2010 to 2015. However, it experienced a tremendous increase in GDP in 2018 with approximately 2,307,585,600 USD which is considered a huge contribution of tourism in bringing sustainable development to the region. Following, 2021 comes the second year where the estimated growth of GB GDP is recorded at 2,282,545,800 USD. Meanwhile, 2017, 2019, 2020 are at a third, fourth and fifth place where approximately 2,188,512,000 USD, 2,090,064,600 USD and 1,966,968,000 USD annual GDP was calculated by the GB government. Comparably, the average GDP calculated in billion USD is 1.06 billion USD. In the years 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, and 2021, there were 1.29 billion, 1.36 billion, 1.41 billion, 1.49 billion, 1.66 billion, 1.93 billion, 2.19 billion, 2.31 billion, 2.09 billion, 1.97 billion, and 2.28 billion USD. In the years 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, and 2021, the average exchange rate in the GB was calculated to be 85.11 billion Pakistani Rupees, 86.27 billion, 93.28 billion, 92.67 billion, 101 billion, 105 billion, 105.32 billion, 121.47 billion, 150 billion, 161.61 billion, and 162.62 billion. The data show that the GDP of GB is increasing from top to dawn, the lowest GDP growth (90.50) recorded in 2010 while it has raised to approximately 371.19 billion in 2021. For twelve years, the GDP of GB has grown significantly. In the years 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, and 2021, there were 111.08 billion Pakistani rupees, 126.62 billion, 130.28

billion, 150.67 billion, 170.31 billion, 202.72 billion, 230.49 billion, 280.30 billion, 313.51 billion, and 317.88 billion.

Table 1: Tourism Economy of Gilgit-Baltistan

| Year | Domestic Tourists Arrival (DTA) | Foreign Tourists Arrival (FTA) | Total No. Tourists | Average Spending of Tourists (PKR) | Total tourist Spending in billion PKR | Tourist Spending % of GDP |
|------|---------------------------------|--------------------------------|--------------------|------------------------------------|---------------------------------------|---------------------------|
| 2010 | 45300 | 7728 | 53,028 | 61,529 | 3.26 | 3.61% |
| 2011 | 61233 | 5242 | 66,475 | 62,250 | 4.14 | 3.73% |
| 2012 | 28893 | 4324 | 33,217 | 63,833 | 2.12 | 1.67% |
| 2013 | 51914 | 4501 | 56,415 | 65,239 | 3.68 | 2.83% |
| 2014 | 50304 | 3442 | 53,746 | 65,593 | 3.53 | 2.34% |
| 2015 | 200651 | 4082 | 204,733 | 68,886 | 14.10 | 8.28% |
| 2016 | 439685 | 4773 | 444,458 | 68,010 | 30.23 | 14.91% |
| 2017 | 781224 | 6212 | 787,436 | 67,783 | 53.38 | 23.16% |
| 2018 | 1391628 | 9027 | 1,400,655 | 67,084 | 93.96 | 33.52% |
| 2019 | 1023023 | 10828 | 1,033,851 | 63,197 | 65.34 | 20.84% |
| 2020 | 633242 | 1098 | 634,340 | 63,790 | 40.46 | 12.73% |
| 2021 | 893129 | 3237 | 896,366 | 70,674 | 63.35 | 17.07% |

Source: GBTD, 2022; Authors' Own

A comprehensive baseline survey was carried out to determine the visitor's spending pattern in 2021 across GB. Average spending per trips amounted Rs. 70674, whereas historical data was calculated by inflation adjustment in the last 10 years. According to the baseline survey, the number of visitors visiting the GB has grown, it is revealed that an average of 53,028, 66,475, 33,217, 56,415, 53,746, 204,733, 444,458, 787,436, 1,400,655, 1,033,851, 634,340, and 896,366 people visited the region annually in 12-year. The spending patterns of these visitors show that more tourists visit GB on an annual basis and that their numbers are gradually increasing. The most visited year is 2018, with around 1,400,655 tourists in GB. Accordingly, 1,033,851 travellers made GB their destination in 2019, the second most popular year for travel. The GB received 33,217 tourists in 2012, the fewest number of visitors ever recorded. In addition, the data shows that with the inflow of more tourists, the annual expenditures of tourists also increased during their journey. On average, visitors spend more than 60 thousand rupees annually. The number of money tourists spend in Pakistan between 2010 and 2020 has been rising significantly. 61,529 PKR, 62,250 PKR, 63,833 PKR, 65,239 PKR, 65,593 PKR, 68,886 PKR, 68,010 PKR, 67,783 PKR, and 67,084 PKR, with a little decline in 2019 and 2020, which are 63,197 PKR and 63,790 PKR, respectively. However, tourist expenditures increased once again and peaked in 2021 with a spending of 70,674 Pakistani rupees. Moreover, the figures for total tourist spending show

minimal spending in billion PKR, however, the total spending increased slightly in the following years 2010 (3.26 billion PKR), 2011 (4.14 billion PKR), 2012 (2.12 billion PKR), 2013 (3.68 billion PKR), 2014 (3.53 billion PKR), and 2015 (14.10 billion PKR). After 2015, the total spending of tourists in billion PKR doubled for the following years 2016 and 2017 with an increase of 30.23 and 53.38 spending in billion PKR. The spending then increased to 93.96 billion PKR in 2018, setting a new record for spending. The total amount spent by visitors in the next three years, 2019, 2020, and 2021, drops slightly to 65.34 billion Pakistani rupees (billion PKR), 63.35 (billion PKR), and 40.46 (billion PKR) respectively.

GRANGER CAUSALITY

The conventional method for determining which variable caused the other has been to use the Granger framework. The Granger causality test entails estimating the equations that follow:

$$GDP_t = \beta_0 + \sum_{i=1}^n \beta_{1i} GDP_{t-i} + \sum_{i=1}^n \beta_{2i} Tour_{t-i} + u_t \quad (1)$$

and

$$Tour_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} GDP_{t-i} + \sum_{i=1}^n \alpha_{2i} Tour_{t-i} + v_t \quad (2)$$

Where *Tour* is the tourism receipts, *U_t* and *V_t* are uncorrelated and white noise error term series. Causality may be determined by estimating

equation 1 and 2 and testing the null hypothesis that $\sum_{i=1}^n \beta_{2i} = 0$ and $\sum_{i=1}^n \alpha_{1i} = 0$ against the alternative hypothesis that $\sum_{i=1}^n \beta_{2i} \neq 0$ and $\sum_{i=1}^n \alpha_{1i} \neq 0$ for equation (1) and (2) respectively.

Three assumptions are explored regarding the connection between tourism and economic growth in Gilgit-Baltistan.

- (1) The theory of tourism-driven economic expansion.
- (2) The theory of economic-driven tourist expansion; and
- (3) The combined two-way causal theory of (1) and (2),

| Correlations | | | | |
|--------------|---------------------|--------|---------|---------|
| | | GDP | TI | TTA |
| GDP | Pearson Correlation | 1 | .850** | .850** |
| | Sig. (2-tailed) | | .000 | .000 |
| TI | Pearson Correlation | .850** | 1 | 1.000** |
| | Sig. (2-tailed) | .000 | | .000 |
| TTA | Pearson Correlation | .850** | 1.000** | 1 |
| | Sig. (2-tailed) | .000 | .000 | |

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Authors (2023)

| Model Summary ^b | | | | | | | | | | |
|----------------------------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|---------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | Durbin-Watson |
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change | |
| 1 | .850 ^a | .722 | .695 | 51.67586 | .722 | 26.013 | 1 | 10 | .000 | .726 |

a. Predictors: (Constant), TI

b. Dependent Variable: GDP

Source: Authors (2023)

CONCLUSION

The relationship between tourism and economic expansion may be causal in either direction. The development of various tourism marketing strategies and policy choices will be significantly impacted by identifying a causal relationship between international and domestic tourism and economic growth. Tourism-led economic growth is feasible if a clear unidirectional causal relationship exists between tourism expansion and economic growth. The results indicate a different causal relationship; then economic development might be required for the growth of the tourism sector. Next, if the causative process is bi-directional, and tourism and economic growths have a reciprocal causal relationship, then a push in both areas would be beneficial. The statistics show a huge impact on the total tourist spending in terms of GDP percentage by the number of tourists visits, average spending, and total tourists' spending. However, the data shows that tourist spending % of GDP was minimal in 2012, when only 1.67 % growth was calculated. Moreover, from 2013 to 2018, the percentage increase in tourist expenditure as a percentage of GDP is 2.83%, 2.34%,

8.28%, 14.91%, 23.16%, and 33.52%, respectively. The GDP growth rate increased to 20.84% in 2019, the greatest growth rate ever.

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