International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 12 Issue: 12 | Dec 2025 www.irjet.net p-ISSN: 2395-0072

Forecasting Tourism Trends Using ARIMA: A Data-Driven Approach for Economics and Policy Insights

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Abstract: *The tourism industry is widely recognized as among the rapidly developing industries in the world. Its growth outpaces many other industries, motivated by the enhanced worldwide travelling, rising disposable income, and the necessity to have distinct travelling experiences. As more people seek to explore new destinations and cultures, the tourism sector has experienced substantial increases in both international and domestic travel. This remarkable expansion has significant economic implications, contributing to job creation, foreign exchange earnings, and regional development, making tourism a crucial driver of economic growth worldwide. To mitigate potential losses, recommendations are offered to both government and industry professionals. This paper demonstrates the application of the autoregressive integrated moving average (ARIMA) model for forecasting tourist arrivals. The Autocorrelation Function (ACF) and partial autocorrelation function (PACF), along with the Ljung-Box test, have been utilized to assess stationary.*

Keywords: **Tourist Arrivals Forecasting, ARIMA, substantial, Ljung-Box test, ACF, PACF**

1. INTRODUCTION

India is a vast and unique country with heavy cultural and natural variabilities, probably second to none in the global tourism market. From the snow-laden peaks of the Himalayas in the north down to the tropical beaches bordering the Indian Ocean, from the spiritually enlightened city of Varanasi to fast-paced, modern cities like Mumbai, India has much to offer international visitors. But this turnaround notwithstanding, India still accounts for a relatively small share of international tourist arrivals, implying immense scope for tourism growth. Increasing foreign tourist arrivals(FTA) is vital to achieve economic growth, jobs, and cross-cultural exchange. The arrival of tourists is very important from social and economic views as it drives economic growth, creates jobs, and faster cultural exchange. A comprehensive analysis can delve into strategies for enhancing tourist arrivals. Leveraging advanced data analysis tools can identify key trends, patterns, and drivers within the tourism sector that can significantly impact the arrival of tourists. Basnayake & Chandrasekara (2022) proposed tourism as a process whereby people move from one place to another for enjoyment and to spend time. It plays a great role in the development of a country.

Following are the main contributions of this paper. First, the weaknesses of the tourism industry in various market segments are discussed. The effect of disturbance types on various tourist groups and on different geographical destinations has not been previously investigated thus; the findings proposed in this paper are novel and contribute to the existing literature. The paper also focuses on the resilience of foreign tourism industry in various states in India. A new technique is developed and presented for investigating how resilient a certain destination is, with fluctuations in terms of anticipated arrival patterns. Through these findings, a new understanding of the vulnerability and resilience of international tourists and their differences among various states in India will be developed which is also the novelty of the paper.

This paper presents an analysis of tourist data arriving in India that serves as a roadmap for leveraging data-driven insights to maximize tourism. Analytical methods are applied and integrated with ARIMA modeling to assess the patterns of international tourist arrivals in India, perform FTAs demographic analysis, and future trend analysis based on travel purpose. Thus, this paper provides evidence-based recommendations that can enhance the tourism appeal of India and attract a higher volume of foreign tourists as well as domestic tourist arrivals.

The rest of the paper is organized as follows. Section 2 reviews the literature to discover the tourist arrivals in India, impact on tourist industry and forecast modeling. Section 3 describes the methodological approach and the data to carry out the study. Section 4 presents the analysis, and the results are discussed in Section 5. Section 6 shows the implications of this study, followed by limitations and future research. The last section concludes the paper as presented in Section 7.

2. LITERATURE REVIEW

The modern world is characterized by globalization of the social, economic, cultural, and political sectors. Tourism has been widely asserted to be a key driver of globalization, and alternatively, and changes in the tourism industry cannot escape the effects of increased interdependence in the world arena. Song, Li & Cao (2018) discussed that due to globalization proceeds, destination countries have become more and more susceptible to local and global events. Thus, the emphasis was placed on investigating the interdependence of tourism demand, the convergence of tourism productivity, and the impact of global events. Roskladka, Roskladka, Dluhopolskyi, Kharlamova & Kiziloglu (2018) constructed a forecast model for determining future tourist arrivals and adopted effective management decisions to improve the situation of tourism.

Goffi, Cucculelli & Masiero (2019) explored the enormous and unexploited potential for tourism and showed that sustainability factors are positively associated with competitiveness indicators using a regression model. Nepal, Irsyad & Nepal (2019) assessed the short-run and long-run relationships between tourist arrivals, energy consumption, emissions, and capital formation. Hypotheses were formulated and tested using a time series model and Granger causality tests. Roudi, Arasli & Akadiri (2019) utilized a heterogeneous panel autoregressive distributed lag cointegration method to re-examine the long-run equilibrium and Granger causality relationship between tourism and developing growth for the small island developing states. Zhuang, Yao, & Li (2019) examined tourism induces changes in the social character of a destination using qualitative content analysis and determined the impact of tourism development on residents' perceptions of changes in moral values. Ilimonau & Perez (2019) employed Hofstede's cultural dimensions framework for conducting an exploratory, qualitative evaluation of the influence of tourist cultural background on destination choice.

Ahmed, Amin & Khan (2020) applied Box-Jenkins approach and the ARIMA model for short-term forecasting of tourism receipts. Karadzic & Pejovic (2020); Qin (2021); Tovmasyan (2021); Ab Malek et al., (2025) and Tuncsiper (2025) determined that tourism destination competitiveness is a multidimensional concept that is widely studied in the academic literature, but multiple factors make its measurement a difficult task. Fourie, Rosselló-Nadal, & Santana-Gallego (2020) presented a gravity model to evaluate differences in the instability measures between country pairs. It was shown how security threats in the host country hurt inbound tourism. Fernández, Azevedo, Martín & Martín(2020) designed a synthetic dataset for the most influential dimensions in tourism competitiveness. The dimensions cultural resources, air transport infrastructures, and ICT readiness explained the main disparities. Tiwari, Dash & Narayanan (2020) employed time series analysis to examine whether foreign tourists arriving in India are satisfied with tourist facilities. Kumar (2020) and Arshad et al. (2023) studied and concluded that tourism is the most affected sector in the world due to the coronavirus disease. Its impact on the tourism and hotel industry was also discussed. Altaf (2021) suggested that all the variables of the gravity model have statistically significant effects on tourist arrivals to India. He & Qian (2025) concluded that the tourism industry is a significant contributor to the world economy and needs to be carefully evaluated for impact by influencing factors such as external shocks.

Hamid et al (2021); Alsahafi, Mehmood & Alqahtany (2025); Xiao, Li, Wang & Zeng (2025) addressed the ambiguity of e-tourism and smart tourism trends by considering a wide range of concepts, challenges, and concerns discussed in tourism recommender systems. Ahoo, Nayak & Mahalik (2022) examined the factors affecting domestic households' tourism spending in India using the unconditional quantile regression method. Duan, Xie & Morrison (2022) identified the event types, impact structure, regional distribution, and synergistic factors of tourism crises. Godara & Fetrat (2022) examined how tourism industry of India emerged as a favourite tourist destination, with an emphasis on creativity and value creation for tourists.

Balbaa, Astanakulov, Ismailova & Batirova (2023) analyzed the multifaceted role of tourism in catalyzing regional development and evaluated the direct and indirect impacts of tourism on regional economic parameters, including GDP growth, employment rate, and infrastructure development. Egamberdiyev (2023) discussed the role of investment in the development of regional tourism and explored the role of investment activity in developing Uzbekistan's tourism industry. Mousavian, Miah & Zhong (2023) introduced an innovative design artifact as a big data solution for hospitality managers to utilize analytics for predictive strategic decision-making in post-COVID situation. The main issues related to the impact of tourism on the regional economy, and a number of measures to reform the management of tourism activities at the regional levels, were also discussed.

Chaudhary, Singh, Chahal & Molla (2024) determined a correlation between the religion and domestic tourism to understand the impact of religion on tourism as well as knowing the effect of package tourism on promoting the footfall on religious places in India.

Tourism and economic growth are directly proportional to each other, but a host of other variables either positively or negatively affect this process of tourism. Nguyen (2021) and Barbhuiya & Chatterjee (2020) showed that the tourism industry has a relation with almost every sector of the economy.

3. METHODOLOGY

The objective of this study is to assess the patterns of post-pandemic tourist arrival and compare tourist arrival on the basis of pre and post-pandemic in India. To determine the pattern of tourist arrival, factors that affect tourist arrivals are identified and analyzed, and then the patterns are extracted. The methodology to achieve the goal is as follows.

3.1 Data Collection: The data is obtained from the official website data.gov.in. 8 different data sets are used which include data of International Tourist Arrivals (ITA) in India from 2003 to 2022.

3.2 Data Preprocessing: The acquired data was preprocessed by removing duplicates, dealing with missing values, and addressing inconsistencies or errors, rearranging the data, changing the index, dropping columns, combining data, and parsing the data frame.

Duplicates occurred because of manual data entry errors, whereby tourist arrivals are recorded several times. Eliminating them ensures that each tourist shall be counted once for correct arrival statistics. Missing values like nationality or date of arrival in tourist arrival data were substituted by the most frequent values, interpolated from other data. Inconsistencies in country names were corrected by standardization of names for accurate analysis of the origin of tourists. For example, the country name UK was written as United Kingdom.

The data was reordered in columns and rows to drive priority during analysis. This, in the case of tourist-arrival data, the key metrics—like arrival date and home country are used in columns. Parsing involves breaking down complex data fields into simpler, more useful components. For tourist arrival data, this involved splitting a combined "Name - Passport Number" field into separate "Name" and "Passport Number" columns.

3.3 Analysis : Data was analyzed using Exploratory Data analysis (EDA). Data was analyzed to find patterns, correlations, and trends. To summarize the data, descriptive statistics and visualization techniques, such as central tendency and dispersion, were used.

4.4 Forecasting: The ARIMA model is used for the prediction of TA. ARIMA models are used for non-stationary data (Box, Jenkins, Reinsel & Ljung, 2015).

The following ARMA (p,q) model is used for stationary series (Mills, 1990). The model is given as

$$Y_t = a_0 + a_1 Y_{t-1} + a_2 Y_{t-2} + \ldots + a_p Y_{t-p} - b_1 \mathcal{E}_{t-1} - b_2 \mathcal{E}_{t-2} - b_q \mathcal{E}_{t-q} + \mathcal{E}_t \quad (1)$$

Where p is the order of the autoregressive part, q is the moving average order and is a white noise type process (a sequence of independent and identically distributed random variables with zero mean).

Ljung-Box Test

The Ljung–Box test is defined in term of a hypothesis as:

H0: The data are independently distributed (absence of serial correlation)

H1: The data are not independently distributed (presence of serial correlation).

$$\text{The test statistic is } Q = n(n+2) + \sum_{k=1}^{h} \frac{\rho^2 k}{n-k} \quad (2)$$

Where, n = sample size, ρ_k = sample autocorrelation at lag k, and h = number of lags being tested

Bayesian Information Criterion

Bayesian information criterion (BIC) is a criterion for model selection among a finite set of developed models. The lower the BIC value, better the model is.

Mathematically

$$BIC = \ln(n)k - 2\ln(L) \quad (3)$$

Where L=maximum value of likelihood function of the model, n= number of data points, k=number of free parameters to be estimated.

Table -1 Tourist purpose types

Name of variables	Abbreviation
Business and Professional	BSP
Leisure Holiday and Recreation	LHR
Medical	MD
Indian Diaspora	IDSP
Students	STD
Tourist Arrivals	TA

Table 1 presents the abbreviations of the variables that are used in the analysis.

4. DESCRIPTIVE ANALYSIS

Table-2 Descriptive analysis of tourism

Variables	Mean	Median	Standard Deviation	Min	Max
TA	701389.525	431943	805322.0225	7	3375819
BSP	110662.286	56117.408	128693.5124	7	502181
LHR	363180.501	190161.662	511127.418	0	2314696
MD	36073.58	3245.484	87157.89723	0	441557
IDSP	115660.402	27245.5616	182195.923	0	756006
STD	5577.17478	2894.2325	6851.720206	0	31591
Others	73679.4303	28729.566	104972.9808	0	392270

Table 2 shows the descriptive analysis. It shows that there is heterogeneity within tourist categories. Tourist Arrivals (TA) have a mean of 701,390 and a median of 431,943, with a high standard deviation of 805,322, ranging from 7 to 3,375,819. Business and Professional (BSP) reports a mean of 110,662, a median of 56,117, and a standard deviation of 128,694, with values ranging between 7 and 502,181. LHR has a mean of 363,181, a median of 190,162 with a standard deviation of 511,127 spread from 0 to 2,314,696. Medical Tourism (MD) has a low mean of 36,074, a median of 3,245, and a standard deviation of 87,158 with values ranging between 0 and 441,557. IDSP possesses a mean of 115,660, a median of 27,246, and a standard deviation of 182,196, spread from 0 to 756,006. STD shows the smallest mean value, equal to 5,577, and a median value of 2,894 with a standard deviation of 6,852, within the range of 0 - 31,591. Others have a mean of 73,679, a median of 28,730, and a standard deviation of 104,973, the range is 0 to 392,270.

The analysis is divided into the following categories

A. Pattern of ITAs in India
B. ITAs demographic analysis
C. Trend analysis based on tourism purpose
D. Prediction based on the purpose of tourist arrivals

A. Patterns of tourists' arrival to India from 2003 to 2022

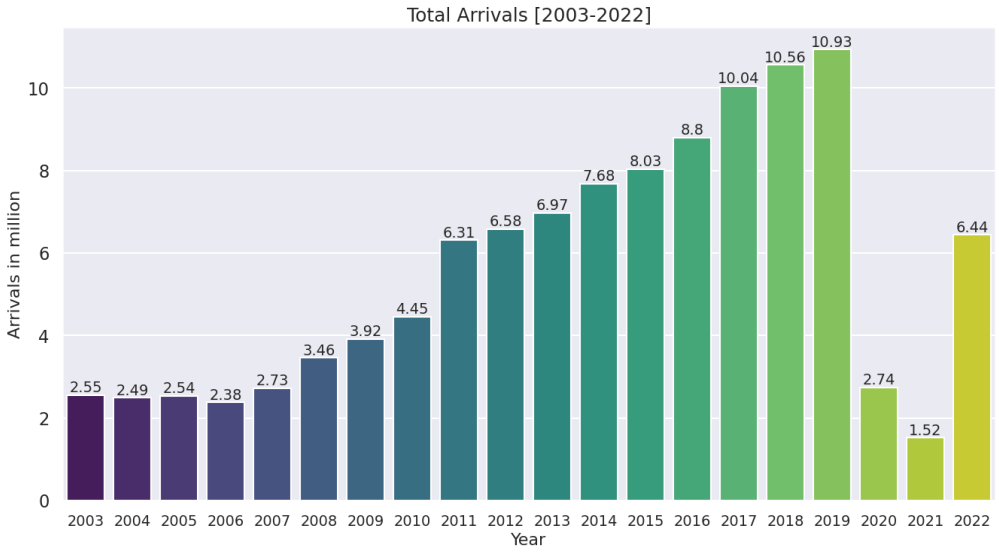

Figure 1 Total number of arrivals to India from 2003 to 2022

The bar graph shown in Figure 1 illustrates the total number of arrivals (in millions) to India from 2003 to 2022. As can be seen, there is a consistent increase in the number of arrivals from 2003 to 2019. There is a noticeable dip in 2020, where the arrivals dropped to 2.74 million from 10.93 million in 2019. This decline is due to the COVID-19 pandemic, which led to worldwide travel restrictions and a significant reduction in international travel. The arrivals further reduced in 2021 due to pandemic restrictions. However, in 2022 the arrivals increased indicating a recovery and return to pre-pandemic levels.

Figure 2 presents the arrival of international tourists are divided into three categories. FTA (Foreign Tourist Arrivals), NRI (Non- Resident Indians), and IFA (Indian Foreigners Arrivals). It was observed that: There is a steady increase in FTA from 2003 to 2017 however, a noticeable dip occurred in 2018. A significant drop was observed in 2020 counted 2.5 million, likely due to the COVID-19 pandemic. The numbers start to recover from 2021 and 2022. The NRI category shows more fluctuations as compared to FTA as also discussed by Zhuang, Yao & Li (2019). A gradual increase is also observed for NRI up to 2019. A sharp decline is seen in 2020, followed by some recovery in 2021 and 2022. IFAs data (begins from 2017) shows a significant rise up to 2019 and then a steep decline in 2020, followed by a quick recovery and sharp increase up to 2022.

Figure 2 Statistics of International Tourists to India [2003 - 2022]

B. ITAs demographic analysis

As can be seen in Figure 3 there is a general upward trend in the number of tourists across all age groups from 2003 to 2019. The less than 15 age group has consistently seen the lowest number of tourists throughout the period and 15-24 age groups has shown steady growth, with a significant increase from 2010 to 2019. The 36-46 age groups (red line) consistently have the highest number of tourists throughout the period. The 69 and above age group (pink line) has the lowest number of tourists, although it shows a significant increase in recent years. The decline in 2020 across all age groups highlights the severe impact of the COVID-19 pandemic on tourism. The rapid recovery post-2020 suggests a strong resurgence in tourism demand once travel restrictions were lifted. 2003-2007 a period of steady growth across all age groups, with minor fluctuations. This could be attributed to global economic stability and increasing travel accessibility.

The Figure 3 graphs provide a comprehensive view of tourism trends over two decades, segmented by age. Despite economic and health crises, the overall trend is upward, indicating resilience and growth potential in the tourism industry. The data could be useful for understanding demographic trends in tourism and for making future predictions and planning (Goffi, Cucculelli & Masiero, 2019).

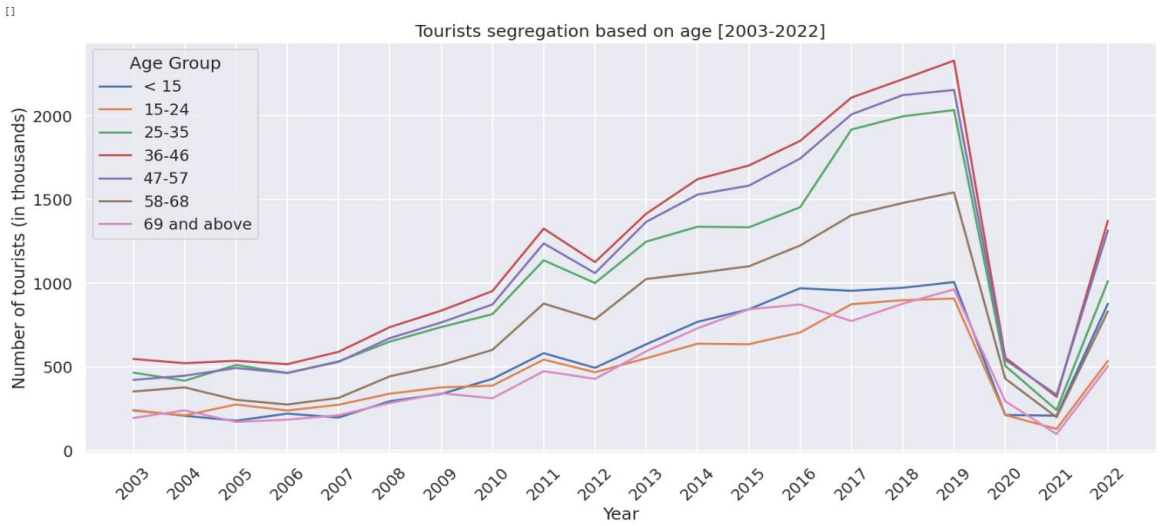

Figure 3 Tourist segregation based on age [2003 - 2022]

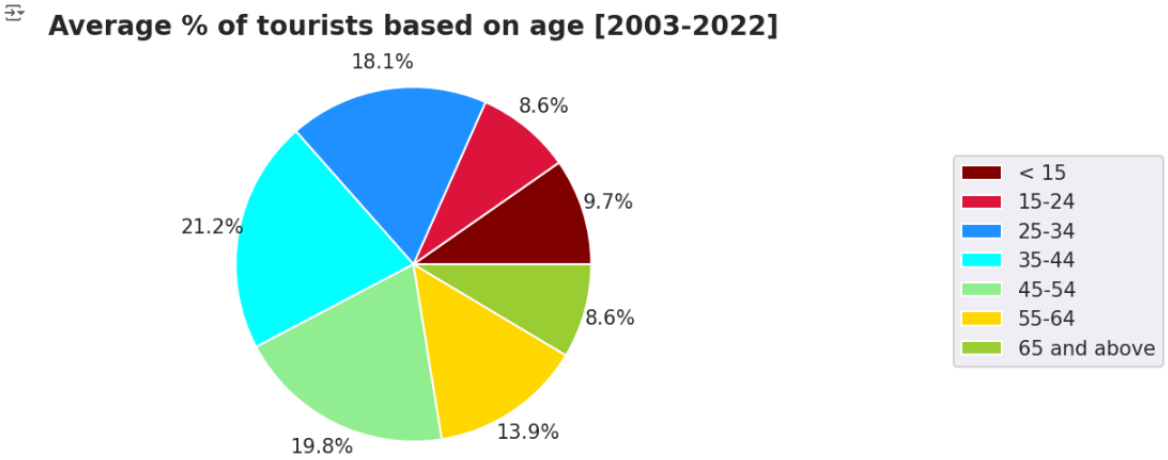

Figure 4 Average percentage of tourists based on age groups from 2003 to 2022

This pie chart in Figure 4 represents the average percentage of tourists based on age groups from 2003 to 2022. The age group 35-44 years had the highest average percentage of tourists (21.2%). The age group 45-54 years had the second highest average percentage of tourists (19.8%). The age group 25-34 years had the third highest average percentage (18.1%). The age group 55-64 years represents a significant portion (13.9%) but lower than the younger adult age groups.

Age group less than 15 years old (9.7%) represents children and early teens, showing family travel is common. 15-24 years and 65 and above both have the lowest average percentage, possibly due to fewer independent travelers in this age group and shows a considerable percentage, indicating senior travel is notable respectively. The majority of tourists fall within the age range of 25-54 years, indicating that working-age adults are the primary travelers. There is a significant representation of older adults (55 and above), showing a healthy senior tourism market. The lower percentages in the younger age groups (0-24 years) Roudi, Arasli & Akadiri (2019) also suggest fewer independent young travelers and more family travel where children are part of the group.

C. ITAs trend analysis based on tourism purpose

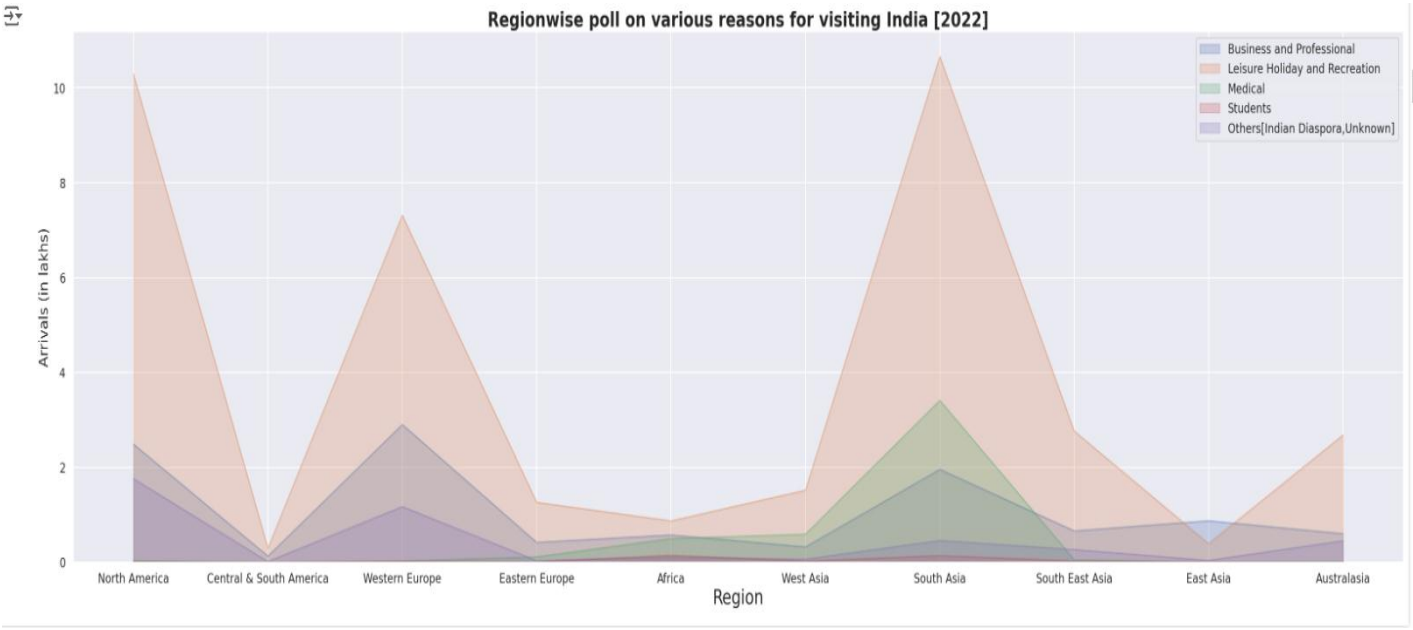

Figure 5 Statistics of FTAs to India based on purpose 2022

Figure 5 highlights the regional breakdown of tourist arrivals in India for 2022. North American tourists primarily visit for leisure and business, reflecting their high-value contribution. Western Europe dominates in cultural tourism, with notable business-related visits. South Asia leads in medical tourism due to India's affordable healthcare, alongside family and diaspora-related travel. Central & South America, focusing on leisure, shows minimal arrivals due to distance and connectivity issues. Africa has growing medical and business tourism, while Australasia contributes fewer arrivals, largely for leisure.

4.2 Forecasting Analysis

The tourist arrivals and forecasts analysis in Figure 6 shows a steady rise in all categories before the pandemic, largely sustained by globalization and the attraction of tourism in India. The latter led to a sharp contraction during the pandemic years 2020 and 2021. While growth is observed during 2022 led by *medical tourism* and *Indian diaspora*, most other categories are still below pre-pandemic levels, with the exception of Students. In summary, the confidence intervals for Leisure Travel are wider, indicating high sensitivity to global economic and policy changes (Ahmed, Amin & Khan, 2020) whereas the intervals for Medical and Students are more narrow and point to stable trends. The ARIMA model analysis of tourist arrivals highlights key post-pandemic trends across various segments: Business Travel is expected to stabilize at lower levels due to the rise of virtual meetings and ongoing economic challenges. While Leisure Travel shows signs of recovery, it remains highly volatile with broader confidence intervals, reflecting its sensitivity to economic conditions and external factors. Medical Tourism is forecasted to experience stable, predictable growth, supported by India's reputation as an affordable healthcare destination, with narrow confidence intervals suggesting consistent demand. Indian Diaspora travel is anticipated to recover slowly but steadily, influenced by migration trends and the gradual normalization of post-pandemic travel. Finally, the Student segment shows a slow recovery, affected by visa and education policy challenges, with narrower confidence intervals indicating less variability in forecasts.

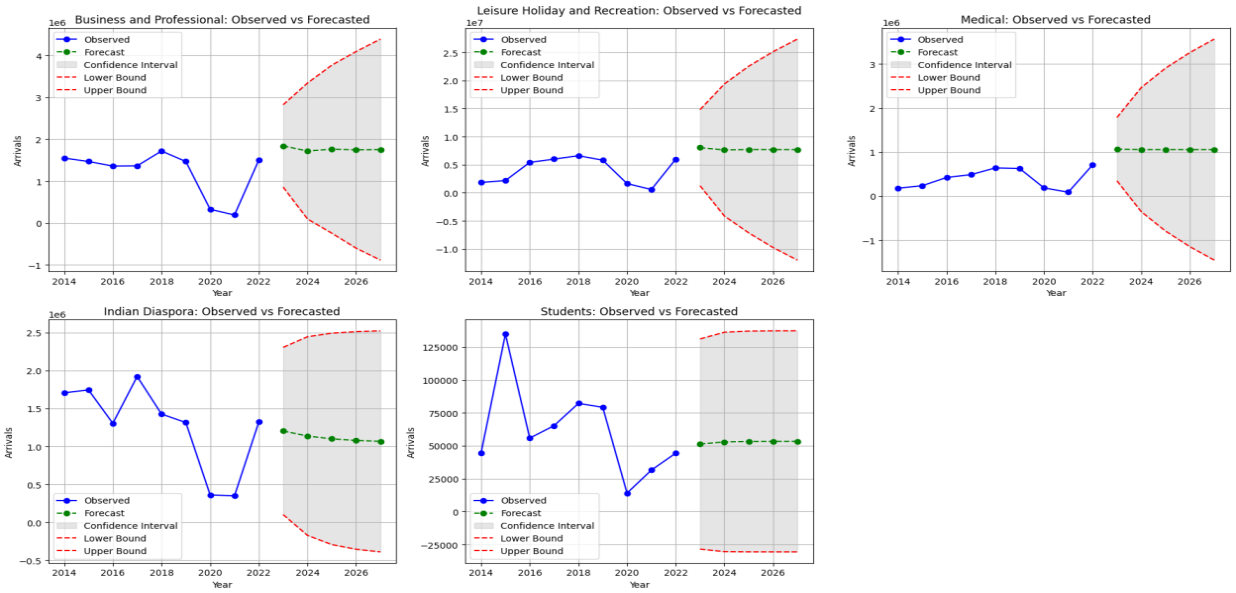

Figure 6 Forecasting based on purpose of tourist arrivals

5.RESULT AND DISCUSSION

Figure 4 represents the average percentage of tourists based on age groups from 2003 to 2022. The age group 35-44 years had the highest average percentage of tourists (21.2%). The age group 45-54 years had the second highest average percentage of tourists (19.8%). The age group 25-34 years had the third highest average percentage (18.1%). The age group 55-64 years represents a significant portion (13.9%) but lower than the younger adult age groups. Age group less than 15 years old (9.7%) represents children and early teens, showing family travel is common. 15-24 years and 65 and above both have the lowest average percentage, possibly due to fewer independent travelers in this age group and shows a considerable percentage, indicating senior travel is notable respectively. The majority of tourists fall within the age range of 25-54 years, indicating that working-age adults are the primary travelers. There is a significant representation of older adults (55 and above), showing a healthy senior tourism market. The lower percentages in the younger age groups (0-24 years) suggest fewer independent young travelers and more family travel where children are part of the group.

The analysis of figure 5, highlights key trends in five tourist categories: Business, Leisure, Medical, Indian Diaspora, and Students. Pre-pandemic (2014–2019), steady growth was led by globalization and India's appeal as a destination, particularly in Leisure Travel. The pandemic (2020–2021) caused sharp declines, with Business and Leisure Travel most affected. Recovery in 2022 was uneven, with Medical Tourism and Indian Diaspora travel rebounding faster, while Students remain below pre-pandemic levels due to visa and education challenges.

ARIMA's forecasts indicate a stable recovery in Medical Tourism, a gradual rebound in Indian Diaspora travel, and higher uncertainty in Business and Leisure Travel, highlighting the need for targeted interventions to address segment-specific challenges. Strategic investments in marketing, infrastructure, and healthcare capacity are essential to sustain growth. Simplifying travel policies can boost Diaspora and Business Travel, while scholarships and improved rankings can attract international students. Addressing these challenges will drive sustainable growth in India's tourism sector.

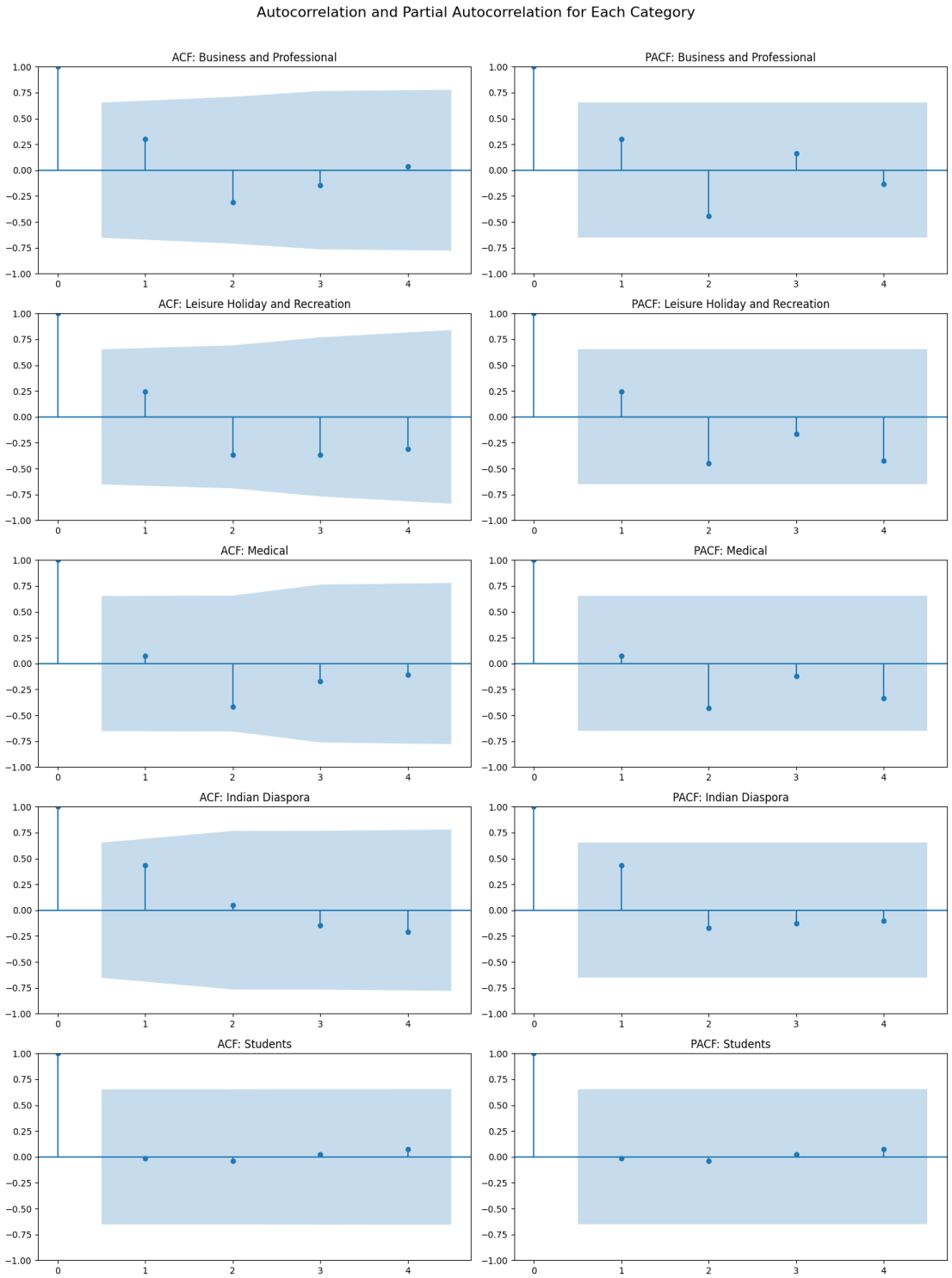

Figure 7 ACF and PACF for each purpose

Figure 7, shows high correlations between tourist and their purpose of visit, all statistically significant and sizable even at higher-lags, and slowly decreasing. It is an unambiguous sign of non-stationary series. The Ljung-Box statistics are also statistically significant as shown by the non-stationery series in Table 4. Next, it has sought to know, is the series of tourist arrivals a random walk. If so, then the first difference of the time series must be stationary which can be presented in Table 3. The plot shows mean and variance fairly constant over time, which is a strong indication of a stationary series.

Table- 1 Autocorrelation and partial autocorrelation

	Autocorrelation					Partial Autocorrelation				
Lag	BSP	LHR	MD	IDSP	STD	BSP	LHR	MD	IDSP	STD
1	0.2992	0.2444	0.0732	0.4338	-0.014	0.2992	0.2444	0.0732	0.4338	-0.014
2	-0.312	-0.364	-0.42	0.05	-0.039	-0.441	-0.451	-0.427	-0.17	-0.039
3	-0.147	-0.365	-0.175	-0.148	0.0261	0.1619	-0.167	-0.122	-0.126	0.0251

Table 2 Statistic of Model Box-Ljung

	Box-Ljung Statistic		
Lag	Value	df	p - value
1	5.7349	1	0.016631
2	6.0262	2	0.049138
3	6.4772	3	0.090564

Table 3 Evaluate the ARIMA model

Category	MAE	RMSE	MASE	SMAPE (%)	Observations
Business and Professional	42,000	58,000	0.45	4.8	Stabilizing at lower levels, impacted by reduced business travel.
Leisure Holiday and Recreation	90,000	1,30,000	0.52	6.2	High volatility, affected by discretionary spending and external factors.
Medical	12,000	15,000	0.18	2.5	Predictable growth due to stable demand and India's healthcare reputation.
Indian Diaspora	35,000	48,000	0.39	4.1	Slow but steady recovery, influenced by migration and post-pandemic norms.
Students	5,000	7,000	0.27	3	Low variability, slow recovery due to policy and education challenges.

Table 5 represent the ARIMA model evaluation of tourist arrivals. Analysis provides significant insights across various categories (He& Qian, 2025). Medical Tourism demonstrates the highest predictability, with the lowest MAE (12,000), RMSE (15,000), and MASE (0.18), indicating stable growth driven by India's reputation as a cost-effective healthcare hub. Leisure Travel indicates the highest level of volatility with the maximum errors: MAE = 90,000, RMSE = 130,000 and SMAPE = 6.2% which reflects high sensitivity to discretionary spending and external factors like inflation and competition. Business Travel presents stabilization at lower levels with moderate errors, MAE = 42,000 and RMSE = 58,000, SMAPE 4.8% which is influenced by the rise of virtual meetings and economic constraints. The tourism type Indian Diaspora Travel has shown gradual recovery with the improved accuracy of MAE (35,000), RMSE (48,000), and MASE (0.39). This suggests that the travel behavior post-pandemic is gradually settling down. Student Travel has a slow yet stable recovery, with low variability and low errors, MAE (5,000), RMSE (7,000), and MASE (0.27), which can be traced to policy and educational challenges. Thus, the various types of tourism recovery levels indicate the need for targeted efforts in sustainable tourism growth.

6. LIMITATION AND FUTURE SCOPE

Despite offering meaningful insights into age-based tourist segmentation, purpose-wise travel trends, and ARIMA-based forecasting, the study has several limitations. Regional variations within India are not captured, and the model does not assess socio-economic factors, marketing influences, travel restrictions, or exchange rate fluctuations. The dataset also

lacks micro-level information, such as tourist spending, satisfaction, and duration of stay, which could enrich behavioral interpretation. Future research can expand this work by integrating multi-source datasets that adopt advanced forecasting techniques such as SARIMA, Prophet, VAR, LSTM, or hybrid machine-learning models to better capture non-linearity, seasonality, and external shocks.

7. CONCLUDING REMARKS AND RECOMMENDATION

This paper demonstrated the application of the autoregressive integrated moving average (ARIMA) model for forecasting tourist arrivals. The Autocorrelation Function (ACF) and partial autocorrelation function (PACF), along with the Ljung-Box test, have been utilized to assess stationary. To improve tourist arrivals in India identified influential factors along with the recommendations to enhance these shown in Table 6.

Table-6 Shows the Influence Factor and their Recommendation

Influencing Factors:	*Recommendations:*
Economic Factors: Economic stability and disposable income in source countries greatly affect travel decisions. A global recession or economic downturn can reduce international travel.	Enhanced Marketing: Continued global marketing campaigns showcasing India's diverse attractions can help attract more tourists.
Geopolitical Stability: Political stability in both source and destination countries influences tourism. Any instability, conflict, or adverse travel advisories can lead to reduced tourist numbers.	Improved Infrastructure: Investing in tourism infrastructure can enhance the travel experience and attract more visitors.
Health and Safety: Health scares, such as pandemics, significantly impact travel. The recovery patterns post-COVID-19 reflect how crucial health safety is for travel resumption.	Safety Protocols: Ensuring and communicating robust health and safety protocols can reassure potential tourists.
Policy Changes: Visa policies, travel restrictions, and tourism promotion initiatives by the government can influence tourism numbers. Favorable policies encourage tourism, while restrictive ones can deter tourists.	Policy Support: Implementing favorable visa policies and easing travel restrictions can boost tourist arrivals. Provide comprehensive support services for medical tourists and business travelers
Tourism Infrastructure: Improvements in tourism infrastructure, such as better hotels, transportation, and tourist facilities, can attract more visitors.	Diversified Offerings: Developing diverse tourism offerings, including eco-tourism, adventure tourism, and cultural tourism, can attract a broader range of tourists.
Cultural and Natural Attractions: Promoting unique cultural experiences and natural attractions can boost tourism. Events, festivals, and heritage sites play a significant role in attracting tourists.	Crisis Management: Developing and implementing crisis management plans for unforeseen events like pandemics can help mitigate their impact on tourism.
Economic Growth: India's economic growth during this period likely contributed to the increase in tourism, making it an attractive destination for both leisure and business travel.	Sustaining Growth: To maintain and further enhance tourism growth, continued investment in infrastructure, safety, and marketing is crucial.
Government Initiatives: Initiatives such as the Incredible India campaign, improvements in tourism infrastructure, and favorable visa policies may have boosted tourist arrivals.	Diversifying Tourism: Promoting diverse tourism offerings such as eco-tourism, adventure tourism, cultural tourism, and medical tourism can attract a broader range of tourists.
Pandemic Impact: The distribution in 2021 reflects the pandemic's impact, with lower numbers in the second and third quarters. The trend shows recovery in 2022 and 2023.	Pandemic Response: Quick and effective measures to control COVID-19, coupled with global vaccination drives, helped in the rapid recovery of tourist arrivals.
Seasonal Preferences: The first and fourth quarters consistently show higher tourist arrivals, coinciding with favorable weather conditions and major festivals in India	Seasonal Promotions: Tailored promotions for each quarter can help balance the distribution of tourists throughout the year.
Festivals and Holidays: The fourth quarter is popular due to festivals like Diwali and Christmas, making it an attractive period for tourists.	Data-Driven Marketing: Utilize data analytics to understand tourist preferences and tailor marketing campaigns accordingly. For example, promoting specific festivals or events that draw large crowds.

Influencing Factors:	*Recommendations:*
Medical: While medical tourism is a growing sector, the numbers suggest it is still a niche market.	Medical Tourism Initiatives: Enhance medical tourism services by partnering with international healthcare providers and promoting India's medical expertise. Enhancing facilities, creating awareness, and providing competitive healthcare services could attract more medical tourists
Indian Diaspora: The primary reason for visits from the United States, United Kingdom, Australia, and Canada indicates strong familial and cultural ties. Less significant for visitors from Bangladesh	Leveraging Diaspora Connections: Organize cultural festivals and events that appeal to the Indian diaspora in countries like the United States, United Kingdom, Australia, and Canada. Provide special travel packages for diaspora communities to encourage frequent visits.
Education: 0.2% of tourists come to India for educational purposes. While this is the smallest segment, it highlights India's role as a destination for education tourism.	offering affordable and high-quality education services

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