Telangana Tourism:
Journey Beyond the Numbers

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Introduction

Telangana, state located in the southern part of India, possess a distinctive blend of history, culture, natural beauty, delicious cuisine, festivals, and innovation, making it a perfect destination for tourists looking for an authentic and enriching experience. Tourism sector plays an important role in the economic development of Telangana by generating revenue, creating jobs, and promoting local businesses.

For the year 2020-2021 it contributed **6.81%** to the Gross State Domestic Product (GSDP) of Telangana and has generated an estimated revenue of **Rs. 5,600 crore** (approximately 754 million US dollars) in the year 2019-20.

So, the primary purpose of this exercise is to analyze historical travel statistics from 2016 – 2019 and derive insights for the tourism department which can maximize their profits

Data Processing

- Data Collection
  - Telangana Department of Tourism has published dataset on domestic and foreign visitors under open policy.
  - Important features in the dataset are number of visitors, district, month and year.
  - Source : https://data.telangana.gov.in/
- Data Collation
  - Using Python script, all the downloaded year wise csv files for domestic and foreign visitors were merged into the single file.
  - Datatypes of each feature were converted for easy use for analysis. e.g. year was changed from generic object to int.
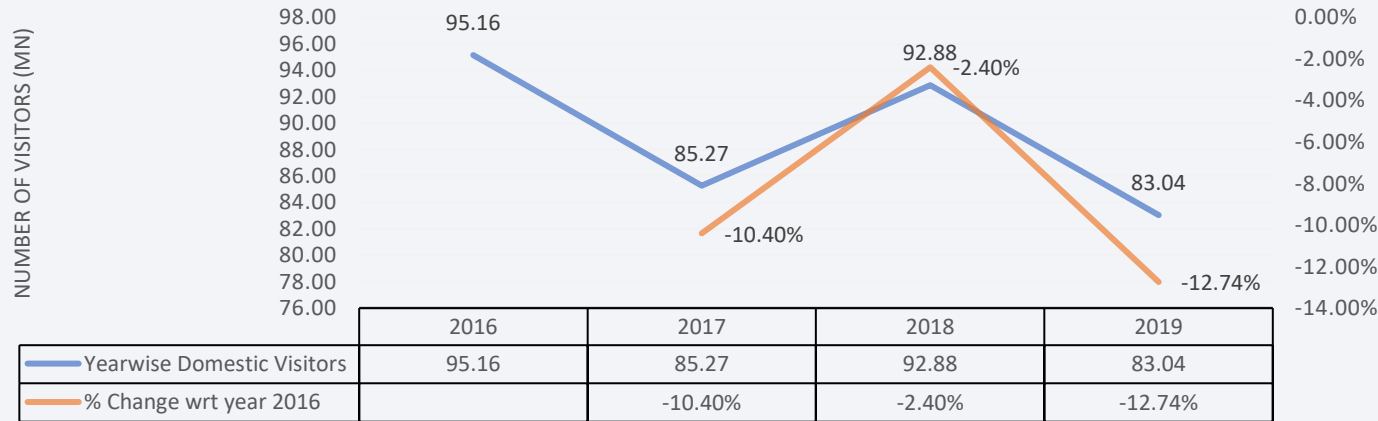
Exploratory Data Analysis with Python and MS Excel Sheets

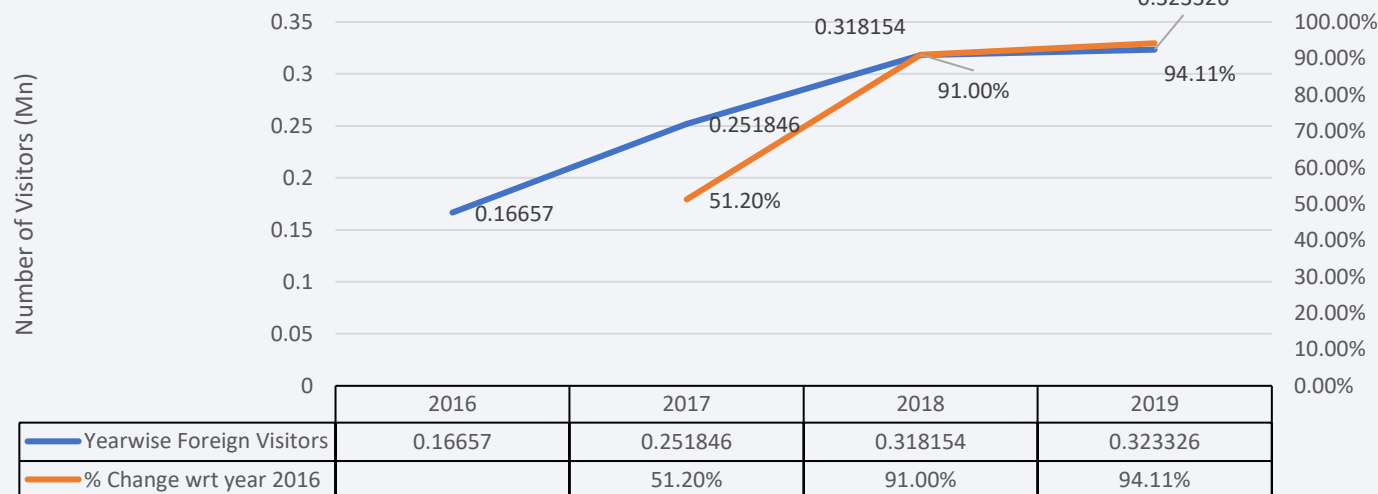Following steps were taken as part of this exercise:

- In order to find the patterns in the data following questions are addressed using Python and Excel Sheet

- Year and month wise comparison between domestic and foreign visitors

- List down the top 10 districts that have highest number of domestic visitors.

- List down the top and bottom 3 districts based on compounded annual growth rate of visitors

- Top and bottom 3 districts with high domestic to foreign tourist ratio.

- Peak and low season months for Hyderabad

Year wise comparison between domestic and foreign visitors

Yearwise Domestic Tourists in Telegana

	2016	2017	2018	2019
Yearwise Domestic Visitors	95.16	85.27	92.88	83.04
% Change wrt year 2016		-10.40%	-2.40%	-12.74%

Yearwise Foreign Tourists in Telegana

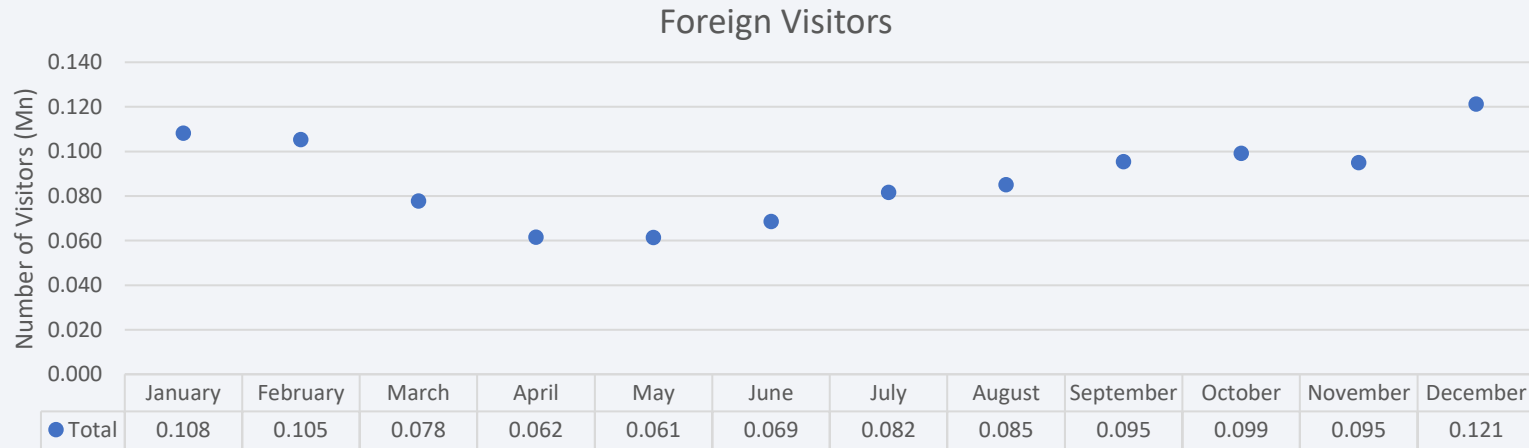|	2016	2017	2018	2019
Yearwise Foreign Visitors	0.16657	0.251846	0.318154	0.323326
% Change wrt year 2016		51.20%	91.00%	94.11%

Key Highlights:

- Number of Districts : 33

- Total of Visitors from 2016 till 2019
  - Domestic : **356.34 Mn**
  - Foreign : **1.05 Mn**

- Decline of local tourists by **12%.**

- **94%** surge recorded for the overseas visitors

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Month wise comparison between domestic and foreign visitors

Foreign Visitors

● Total	January	February	March	April	May	June	July	August	September	October	November	December
	0.108	0.105	0.078	0.062	0.061	0.069	0.082	0.085	0.095	0.099	0.095	0.121

Local Visitors

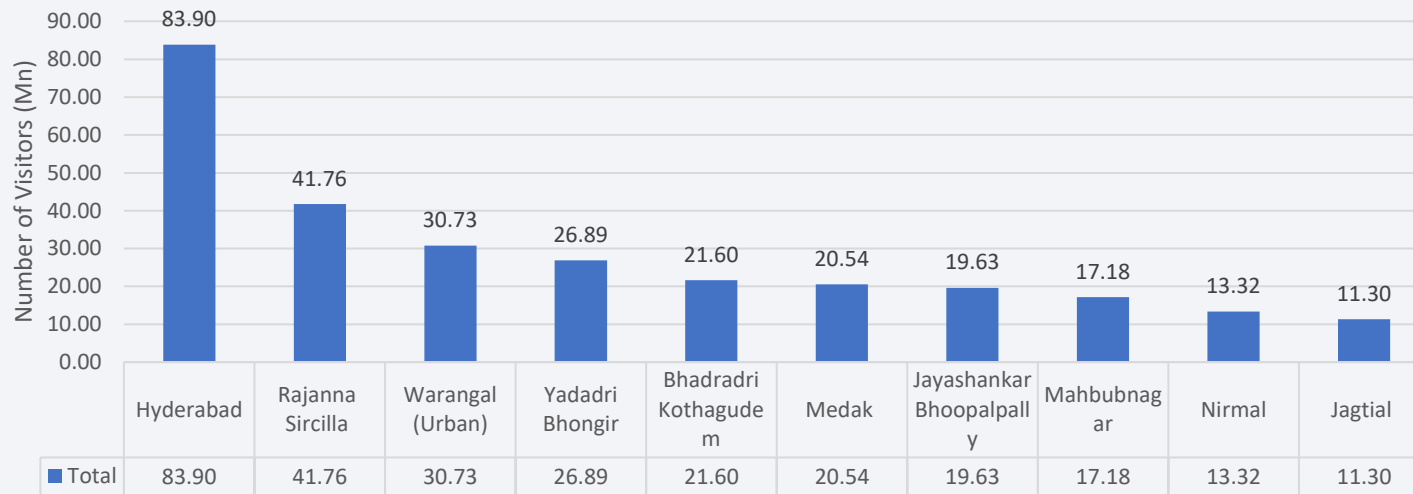| ● Total	January	February	March	April	May	June	July	August	September	October	November	December
	41.38	58.08	28.74	23.96	22.88	43.14	19.17	22.31	20.81	22.49	23.55	29.83

Key Highlights:

- Visitors prefer beginning and end of an year.

- During mid year, number of visitors are reduced.
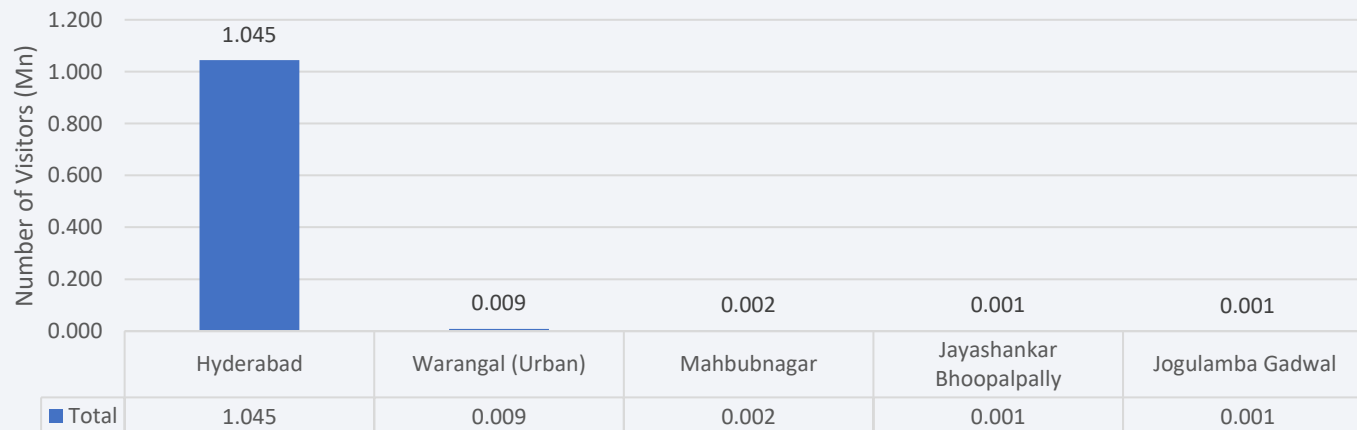
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Tourists district wise distribution

Domestic Tourist charter for the top 10 Districts

	Hyderabad	Rajanna Sircilla	Warangal (Urban)	Yadadri Bhongir	Bhadradri Kothagudem	Medak	Jayashankar Bhoopalpally	Mahbubnagar	Nirmal	Jagtial
■ Total	83.90	41.76	30.73	26.89	21.60	20.54	19.63	17.18	13.32	11.30

Foreign Tourists charter for the top 10 Districts

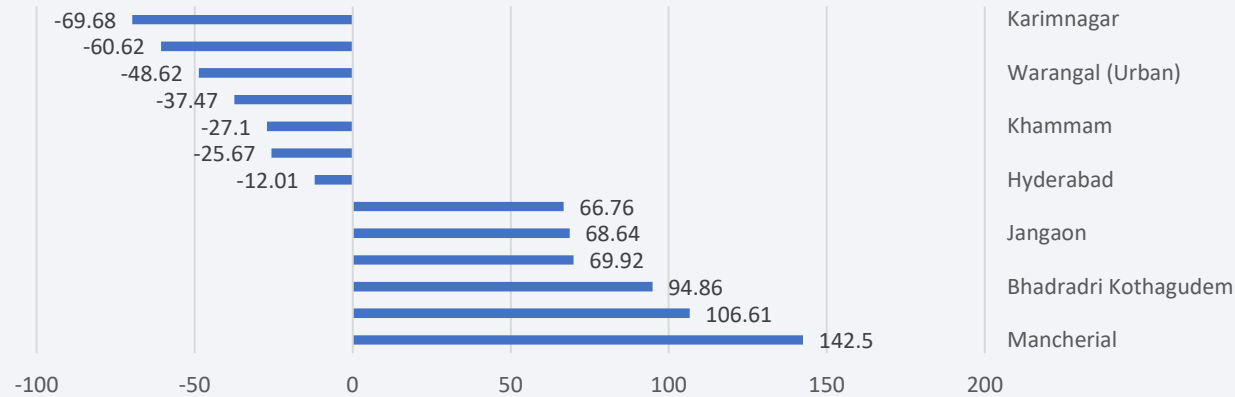|	Hyderabad	Warangal (Urban)	Mahbubnagar	Jayashankar Bhoopalpally	Jogulamba Gadwal
■ Total	1.045	0.009	0.002	0.001	0.001

Key Highlights:

- Hyderabad has registered the highest number of tourists. (approx. **84 Mn** from 2016 till 2019).

- Foreigners does not exploit other districts.

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Tourists district wise distribution

District-wise CAGR for 2016 - 2019

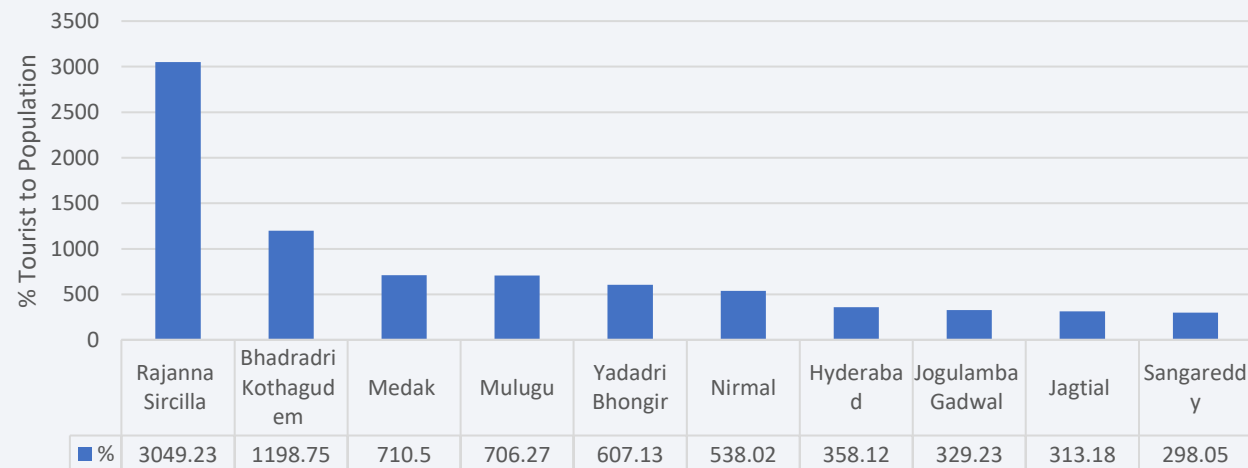| District	CAGR
Karimnagar	-69.68
Warangal (Urban)	-60.62
	-48.62
Khammam	-37.47
	-27.1
Hyderabad	-25.67
	-12.01
Jangaon	66.76
	68.64
Bhadradri Kothagudem	69.92
	94.86
	106.61
Mancherial	142.5

Key Highlights:

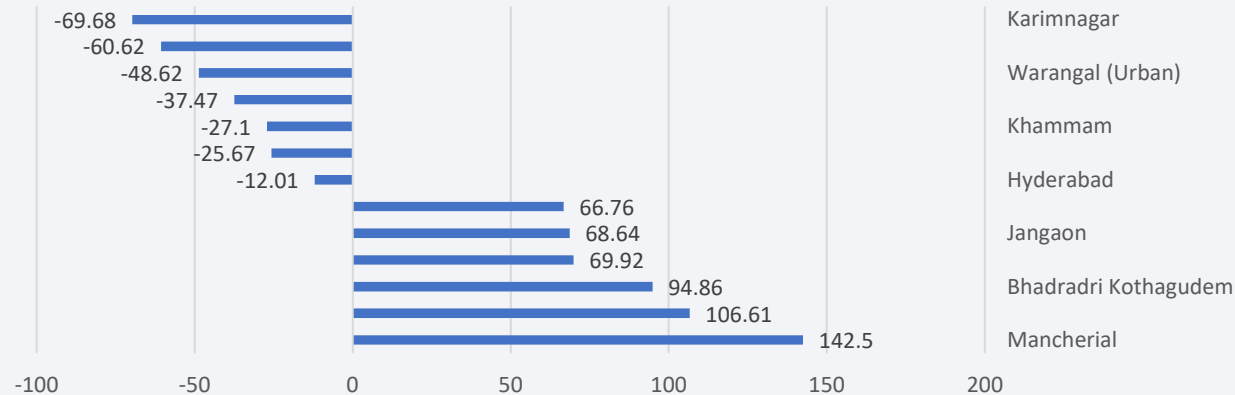- Mancherial district has recorded highest CAGR and Karimnagar lowest respectively.

- Rajanna Sircilla has highest tourist to population margin.

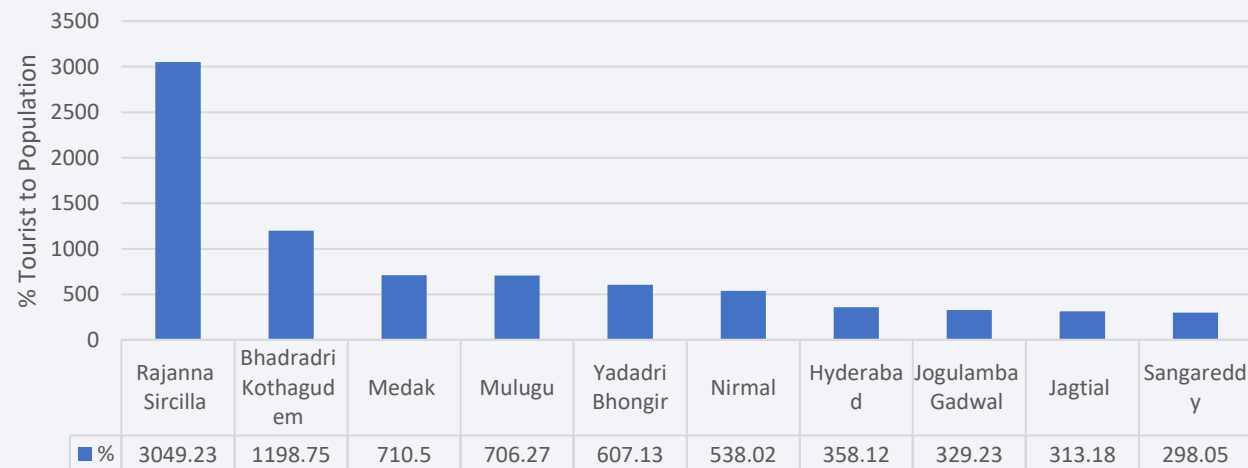## Tourist to District Population Ratio - Top 10

	Rajanna Sircilla	Bhadradri Kothagudem	Medak	Mulugu	Yadadri Bhongir	Nirmal	Hyderabad	Jogulamba Gadwal	Jagtial	Sangareddy
%	3049.23	1198.75	710.5	706.27	607.13	538.02	358.12	329.23	313.18	298.05

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CAGR and Tourist to Population Ratio

District-wise CAGR for 2016 - 2019

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Tourist to District Population Ratio - Top 10

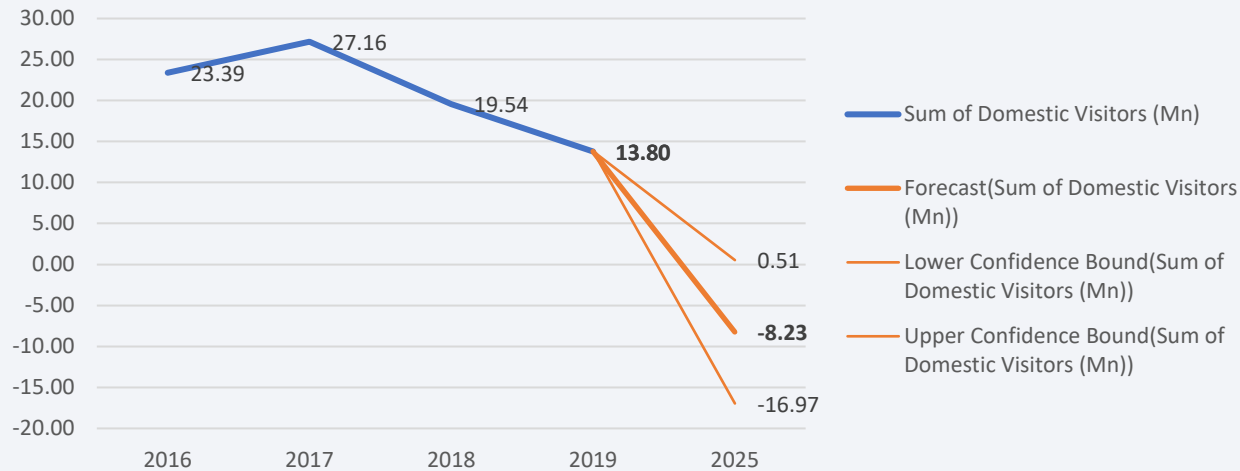| %	Rajanna Sircilla	Bhadradri Kothagudem	Medak	Mulugu	Yadadri Bhongir	Nirmal	Hyderabad	Jogulamba Gadwal	Jagtial	Sangareddy
	3049.23	1198.75	710.5	706.27	607.13	538.02	358.12	329.23	313.18	298.05

Key Highlights:

- Mancherial district has recorded highest CAGR and Karimnagar lowest respectively.

- Rajanna Sircilla has highest tourist to population margin.

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Prediction Analysis for Hyderabad

Hyderabad Domestic Tourist forecast for 2025

- Sum of Domestic Visitors (Mn)
- Forecast(Sum of Domestic Visitors (Mn))
- Lower Confidence Bound(Sum of Domestic Visitors (Mn))
- Upper Confidence Bound(Sum of Domestic Visitors (Mn))

Hyderabad - Foreign Visitors Forecast for 2025

- Values
- Forecast
- Lower Confidence Bound
- Upper Confidence Bound

Key Highlights:

Using Time Series Forecasting in Excel sheet, Hyderabad may experience high number of foreign tourists and dip for the local tourists.

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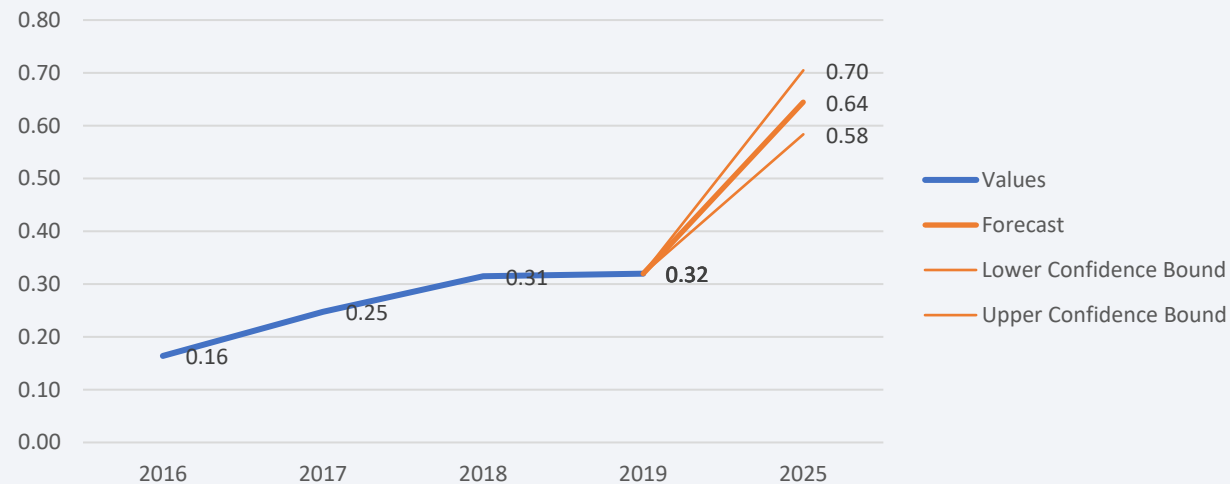
Summary of Exploratory Data Analysis

- **357.40 Mn** tourists have visited Telangana between 2016 and 2019, out of **356.34 Mn** are local and rest **1 Mn** are of foreign countries.

- Trend shows the decline of domestic tourists and growth of overseas visitors.

- It is observed that peak season for visitors is between December and February and off season is through June and July.

- Over the 2016 – 2019 period, Mancherial district has earned maximum CAGR i.e. **142%**

- Hyderabad has attracted maximum number of tourists, moreover statistics indicates local people are dwindling by more than 100% and rise of international travelers by 100%.

- Medchal, Ranga Reddy, Suryapet & Vikarabad districts had **0** visitors.

- Local Visitor coverage of districts is **88%** and overseas is **44%.**

- From the existing trend, forecast of 2025 suggests

    - Steep decline of **~14 Mn (-18%)** country visitors posing the state of revenue loss of **approx. INR 1790 crores.**

    - Upsurge of foreign visitors by **~62 Mn (+100%)** foreign visitors estimated revenue gain of **INR 182 crores.**

Recommendations to boost up the tourism sector in Telangana

Marketing and Promotion

- Develop effective marketing and promotional strategies to attract more tourists to the region.
- Collaborate with other sectors
- Maximize the benefits digital marketing
- Host events
- Provide tailored tourist packages for categories such as families, adventure travelers, or luxury travelers.
- Encourage repeat visitors.

Infrastructure

- Invest in transportation infrastructure
- Build and improve tourist facilities
- Improvise the use technology
- Develop cultural and heritage infrastructure.
- Improve safety and security infrastructure

Safety and Security

- Develop and enforce safety standards
- Implement security measures
- Collaborate with law enforcement
- Check Crime rates especially in Hyderabad.
- Use technology
- Political instability

Other factors

- Competition
- Economic factors

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References

- Sales Icon - https://www.flaticon.com/authors/monkik

- https://traveltriangle.com/blog/10-reasons-why-you-should-never-visit-hyderabad/

- Special credits to Open Data Telangana

  - https://data.telangana.gov.in/

- https://unsplash.com/photos/BgF8HUIg2JY

- https://www.newindianexpress.com/cities/hyderabad/2018/jun/01/10-things-hyderabadis-hate-and-want-to-fix-about-the-city-1822563.html

- Excel sheet and Jupyter Notebook is available at following Git Repository:
  - https://github.com/ajeshrajan123/CodeBasicsChallenge5/

Thank you!