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ABOUT TELANGANA

Telangana, the youngest state in the Union of India, formed on June 2, 2014, comprises 10 districts: Khammam, Nalgonda, Warangal, Karimnagar, Medak, Nizamabad, Adilabad, Mahbubnagar, and Hyderabad. The 10 districts have been reorganized into 33 districts from 11th October, 2016. Telangana, with a geographical area of 112,077 square kilometers, and a population of 35,286,757 (2011 census - 35.28 million), is the 12th largest state in terms of both area and population in India.

Hyderabad - the capital city and the largest urban center in the state - Telangana is predominantly rural, with agriculture playing a critical role in its economy. The region is known for its rich cultural heritage, including traditional arts, crafts, and festivals that reflect the diverse and vibrant history of the area.

Moreover, Telangana's IT sector has seen significant growth, with Hyderabad emerging as a major hub for technology and innovation. The establishment of IT parks and special economic zones has attracted global companies, generating employment and fostering a thriving business environment.

In addition to the remarkable progress and vibrant culture of Telangana, there are several important aspects that contribute to the state's development and functioning. Here, we delve into information regarding stamp registration, transportation, and the TS-iPASS initiative.

STAMP REGISTRATION

Stamp and document registration are essential legal steps in property transactions. Document registration involves officially recording the property details with the government, making the transaction legally binding and public. Stamp registration requires paying stamp duty, a tax on property transactions, which serves as proof of the transaction's legality

TRANSPORT ANALYSIS

Transport analysis in the context of vehicle sales involves a comprehensive study of the patterns, trends, and impacts of vehicle usage and ownership in the state. This analysis includes examining the data on vehicle registrations, the types of vehicles being sold, and the demographics of buyers.

TS-iPASS (Telangana State Industrial Project Approval and Self-Certification System)

The scheme of TS-iPASS introduced by the Government of Telangana has indeed set a new benchmark in our country. Telangana State had ranked 13th in the year 2015-16 in ease of doing business and now has moved up to 1st rank in the year 2016-17. The online single window system has a provision for filing applications, payment, status tracking, online scrutiny and approval of applications.

PROJECT OBJECTIVES

Explore Stamp Registration, Transportation and Ts-Ipass Datasets.
Understand their attributes, categories and time period

Analyze trends and patterns within each department.

Identify growth opportunities and areas needing attention.

Find correlations among these departments and report the overall growth of the state through insights and relevant visuals such as shape maps.

DATA DETAILS

Timeframe: FY-2019-FY-2022

TOTAL Districts: 33

Files:

Dimensions:

dim_districts.csv: District information

dim_date.csv: Date details

Facts:

fact_stamps.csv: Registrations and revenue

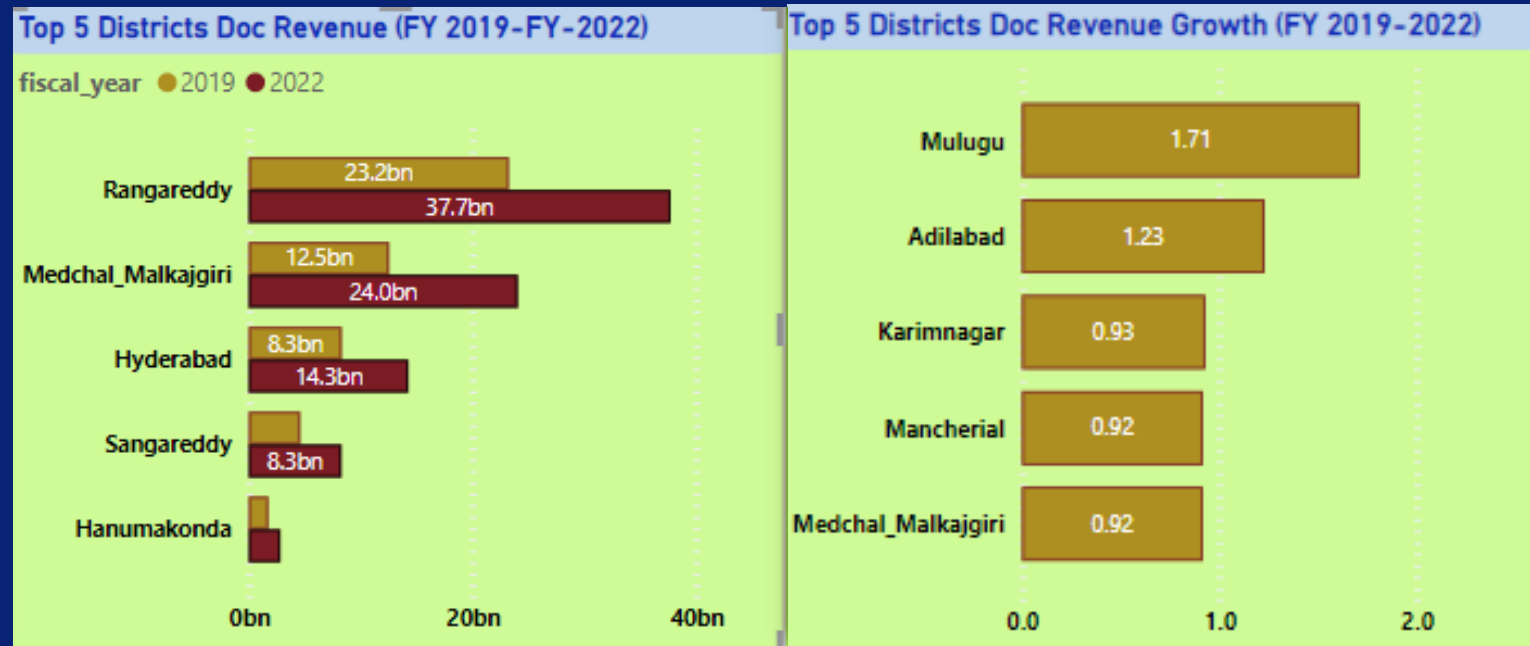
fact_transport.csv: Vehicle sales data

fact_TS_iPASS.csv: Sector investments

PRIMARY QUESTIONS

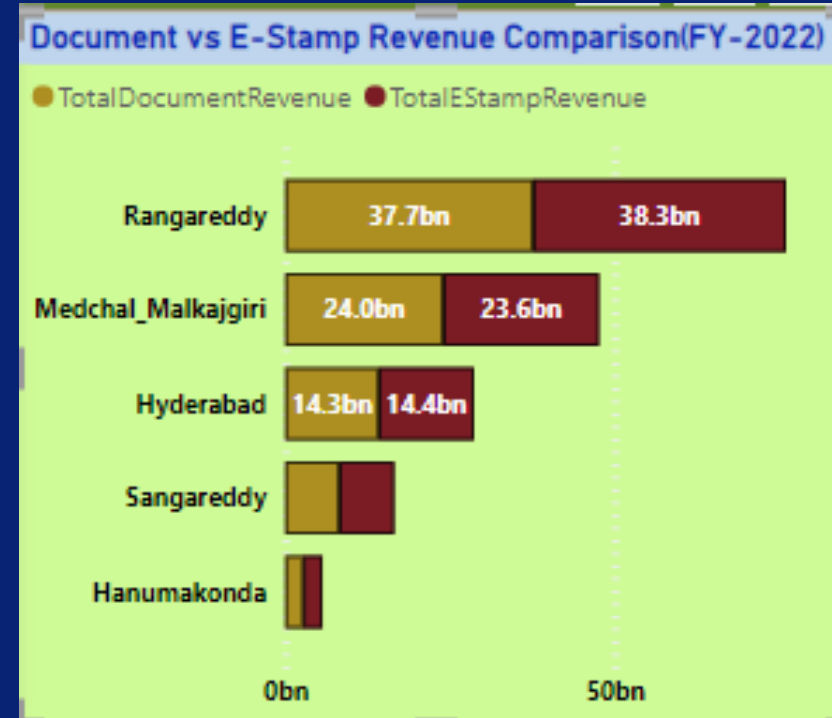
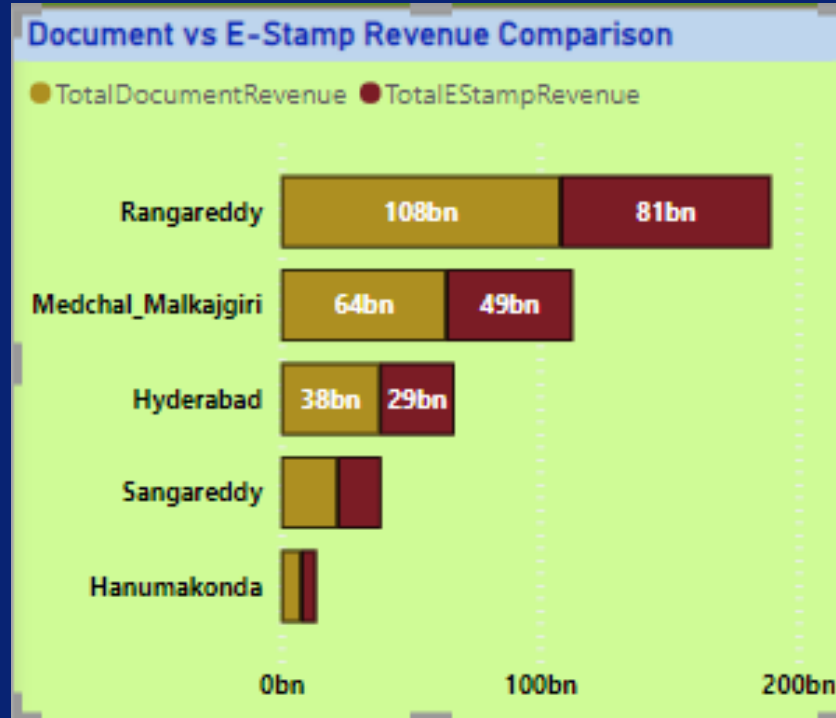
Stamp Registration

1. How does the revenue generated from document registration vary across districts in Telangana? List down the top 5 districts that showed the highest revenue growth between FY 2019 and 2022.



Insights: Rangareddy and Medchal Malkajgiri generate the highest revenue from document registration, while Mulugu and Adilabad show the highest revenue growth rates, driven by urbanization and emerging investment opportunities.

2. How does the revenue generated from document registration compare to the revenue generated from e-stamp challans across districts? List the top 5 districts where e-stamp revenue contributes significantly more to the revenue than the documents in FY 2022?



Insight: There is a noticeable shift towards E-stamp usage over traditional document registration methods. The trend shows an increasing adoption of E-stamps year over year.

3. Is there any alteration of e-Stamp challan count and document registration count pattern since the implementation of e-Stamp challan? If so, what suggestions would you propose to the government?



Insight: The implementation of e-Stamp challans has resulted in a noticeable shift from traditional document registrations to e-Stamp challans. This indicates the successful adoption of the new system.

Suggestions:

- Enhance digital infrastructure to support increased e-stamp transactions.
- Provide training and resources to ensure smooth adaptation to e-stamp processes.
- Launch public awareness campaigns to promote the benefits of e-stamp usage.
- Collaborate with financial institutions to streamline the integration of e-stamp systems.

4. Categorize districts into three segments based on their stamp registration revenue generation during the fiscal year 2021 to 2022.

District Wise E-Stamp Revenue Segments

district	EStamp_Rev	Rev Segment
Rangareddy	81.3bn	High
Medchal_Malkajgiri	48.8bn	High
Hyderabad	28.7bn	High
Sangareddy	16.7bn	High
Hanumakonda	5.8bn	Medium
Yadadri Bhuvanagiri	4.3bn	Medium
Khammam	4.2bn	Medium
Nizamabad	3.0bn	Medium
Nalgonda	3.0bn	Medium
Karimnagar	3.0bn	Low
Mahabubnagar	2.2bn	Low
Suryapet	2.1bn	Low
Siddinet	1.9bn	Low

District Wise E-Stamp Revenue Segments (FY 2021-2022)

district	EStamp_Rev	Rev Segment
Rangareddy	70.7bn	High
Medchal_Malkajgiri	42.3bn	High
Hyderabad	25.3bn	High
Sangareddy	14.8bn	Medium
Hanumakonda	5.0bn	Medium
Yadadri Bhuvanagiri	3.8bn	Medium
Khammam	3.6bn	Medium
Karimnagar	2.6bn	Low
Nizamabad	2.6bn	Low
Nalgonda	2.6bn	Low
Mahabubnagar	2.0bn	Low
Suryapet	1.8bn	Low
Siddinet	1.8bn	Low

Insight: Districts have been categorized into High, Medium, and Low revenue segments.

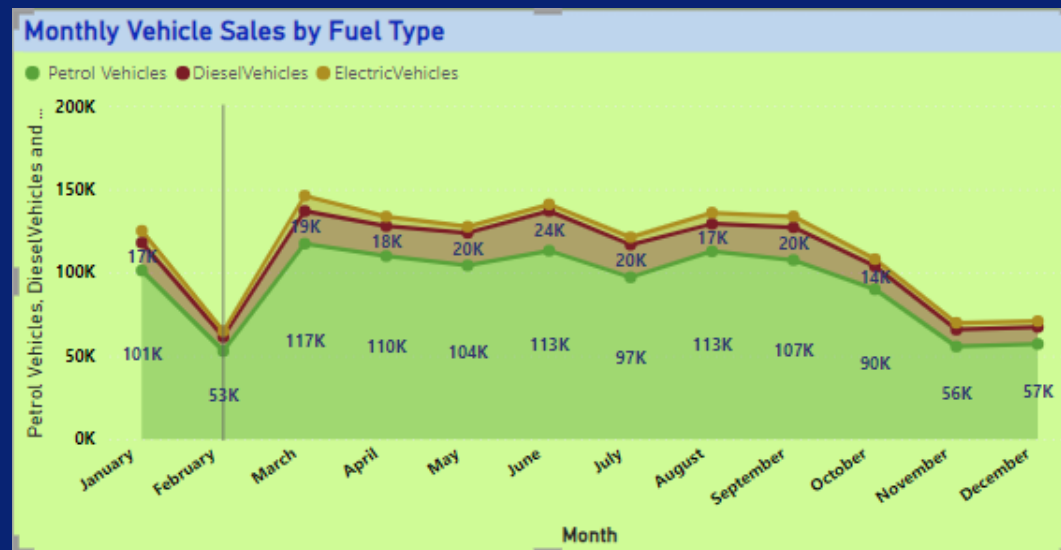
High Revenue: Ranga Reddy, Hyderabad, Medchal Malkajgiri

Medium Revenue: Sangareddy, Hanumakonda Nalgonda etc.

Low Revenue : Mahbubnagar, Nizamabad, Warangal etc..

PRIMARY QUESTIONS TRANSPORTATION

5. Investigate whether there is any correlation between vehicle sales and specific months or seasons in different districts. Are there any months or seasons that consistently show higher sales rates, and if yes, what could be the driving factors?



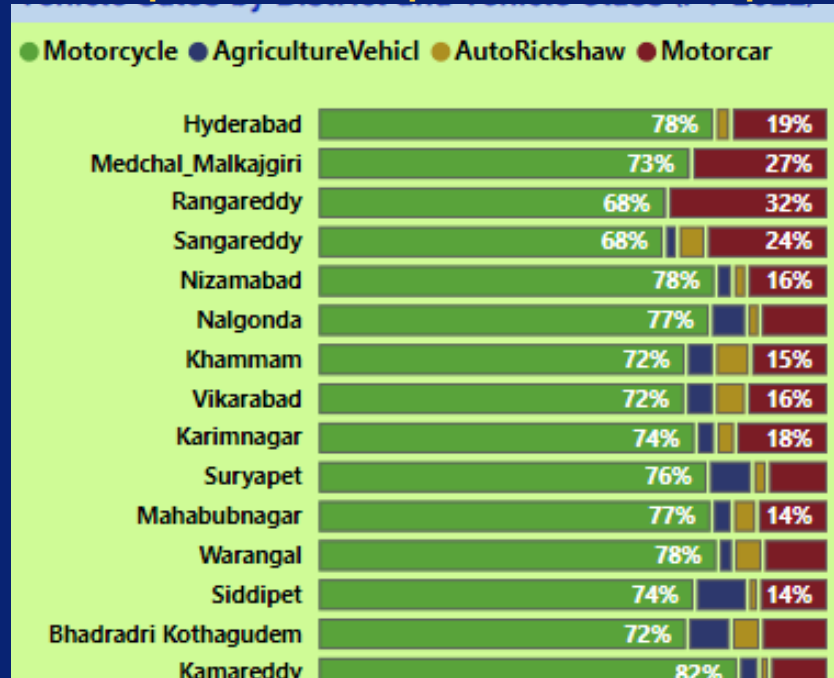
Insights:

March, June, October: These months show higher sales due to festivals and year-end promotions.

April, May, December: These months show lower sales, likely due to post-festive season and mid-year dip.

PRIMARY QUESTIONS TRANSPORTATION

6. How does the distribution of vehicles vary by vehicle class (MotorCycle, MotorCar, AutoRickshaw, Agriculture) across different districts? Are there any districts with a predominant preference for a specific vehicle class? Consider FY 2022 for analysis.



Insights:

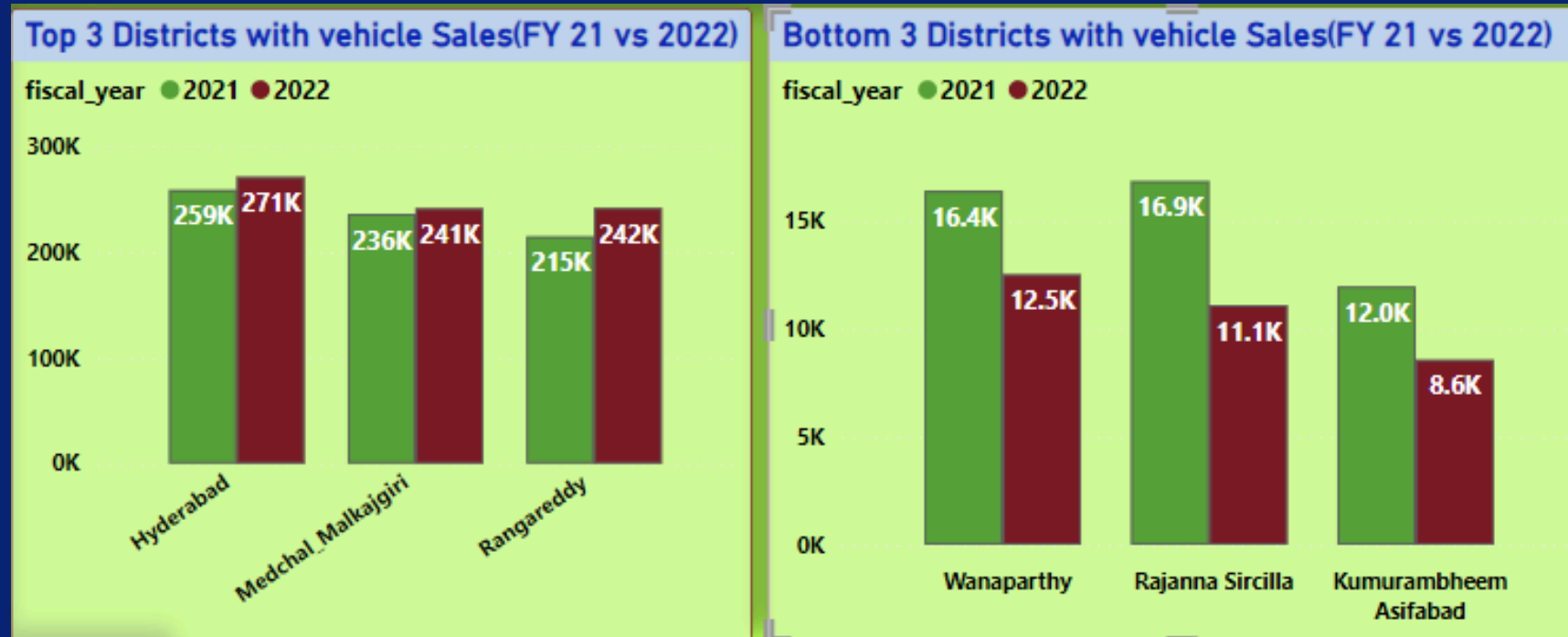
MotorCycle Dominance: Motorcycles are the most common vehicle across all districts, indicating a widespread preference for two-wheelers.

MotorCars: High concentration in economically developed districts like Hyderabad and Rangareddy, Sangareddy due to better infrastructure and economic status.

Agriculture Vehicles: Predominantly found in rural districts such as Siddipet, Karimnagar, and Warangal, reflecting the agricultural focus of these areas.

PRIMARY QUESTIONS TRANSPORTATION

7. List down the top 3 and bottom 3 districts that have shown the highest and lowest vehicle sales growth during FY 2022 compared to FY 2021? (Consider and compare categories: Petrol, Diesel and Electric)



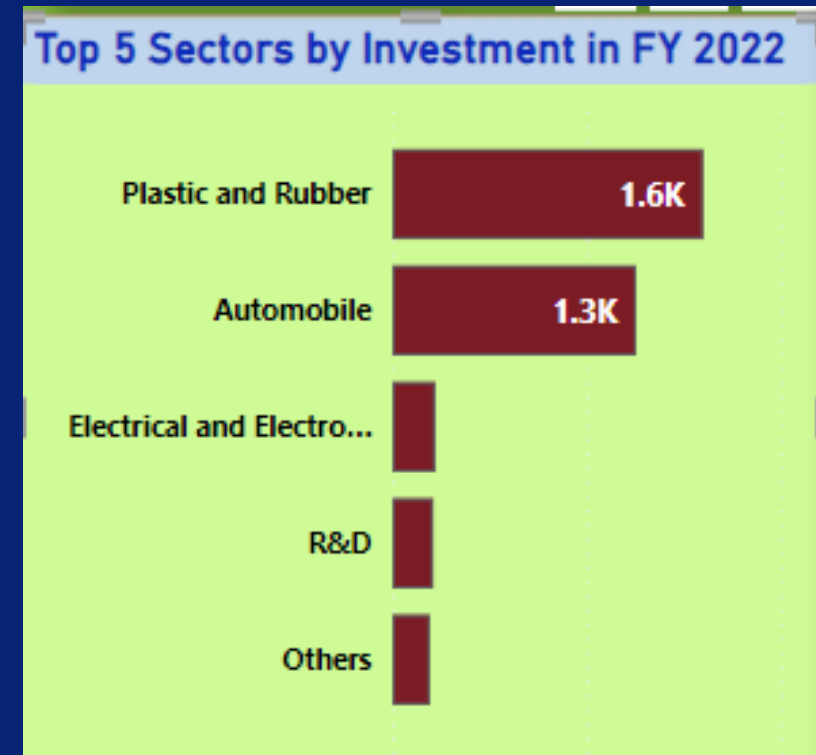
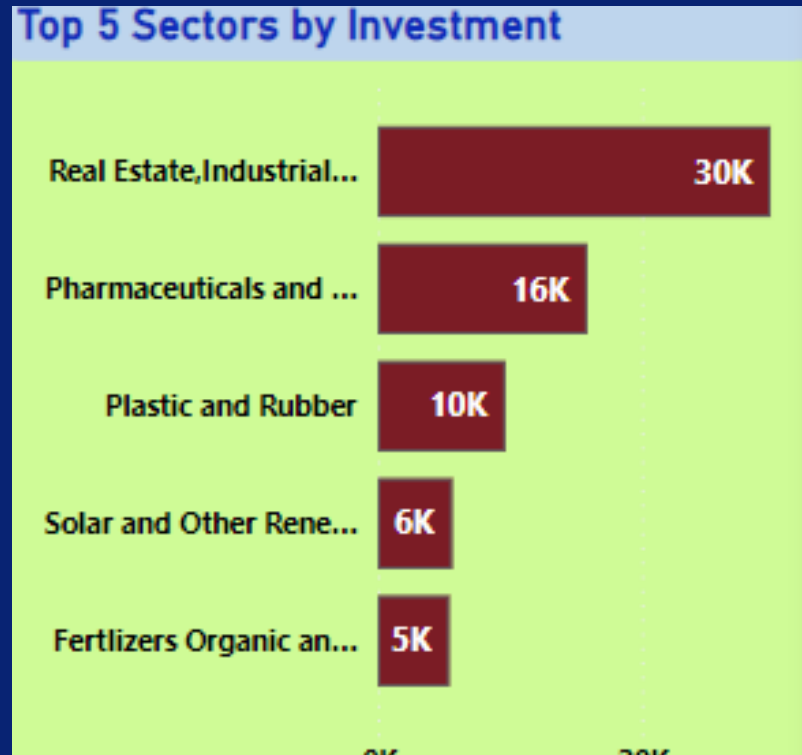
Insights:

- **Top 3 Districts:** Hyderabad, Medchal Malkajgiri, RangaReddy(highest growth in vehicle sales)
- **Bottom 3 Districts:** WanaParthy, Rajanna Siricilla, Asifabad (lowest growth in vehicle sales)

PRIMARY QUESTIONS

TRANSPORTATION

8. List down the top 5 sectors that have witnessed the most significant investments in FY 2022.



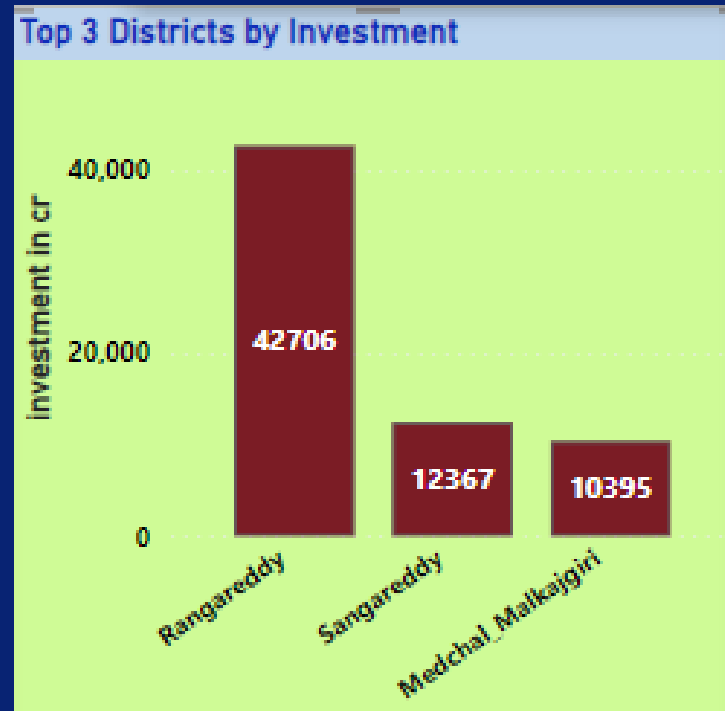
Insights:

The top 5 sectors with the most significant investments are Plastic and Rubber, Automobile etc..in the FY-2022

PRIMARY QUESTIONS

TRANSPORTATION

9. List down the top 3 districts that have attracted the most significant sector investments during FY 2019 to 2022? What factors could have led to the substantial investments in these particular districts?



Insights:

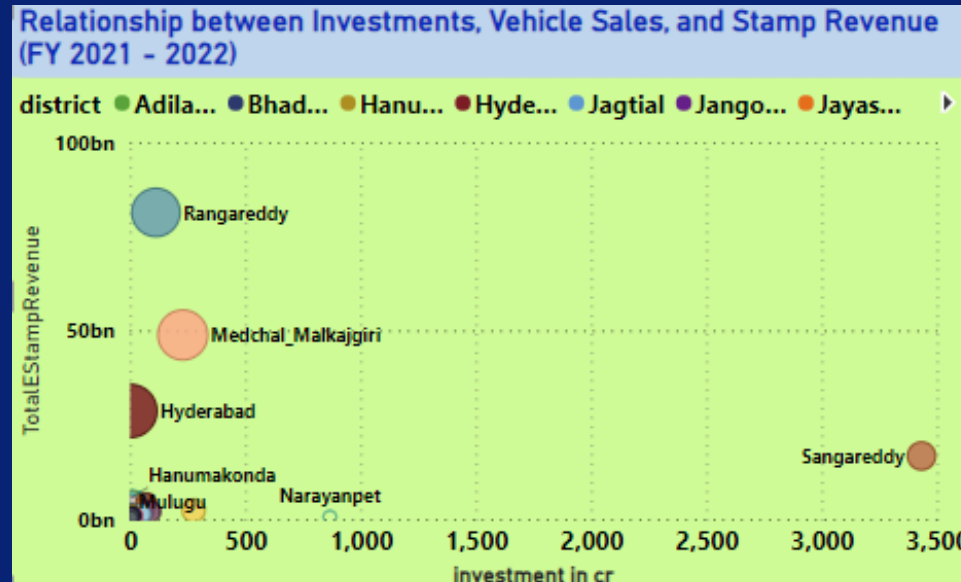
SangaReddy, Ranga Reddy, and Medchal attracted the most significant sector investments.

- **Factors:** Well-developed infrastructure, availability of skilled workforce, and favorable government policies.

PRIMARY QUESTIONS

TRANSPORTATION10.

10. Is there any relationship between sector investments, vehicles sales and stamps revenue in the same district between FY 2021 and 2022



Insights:

There is a positive correlation between high sector investments, increased vehicle sales, and higher stamp revenue in districts like Hyderabad and Ranga Reddy. When significant investments are made in sectors such as IT, Pharmaceuticals, and Automobiles, it leads to increased economic activities in these regions. This, in turn, drives higher vehicle sales and stamp registration revenue as businesses expand and individuals acquire more assets.

PRIMARY QUESTIONS

11.Are there any particular sectors that have shown substantial growth in multiple districts in FY 2022?

Investment Distribution by Sector and District

sector	no_of_districts	Investments
Agro based incl Cold Storages	33	2,100.47
Food Processing	33	4,115.91
Cement, Cement & Concrete Products, Fly Ash Bricks	32	2,238.63
Others	32	3,229.48
Plastic and Rubber	32	9,649.78
Engineering	31	5,024.61
Granite and Stone Crushing	31	1,922.38
Beverages	30	2,809.80
Pharmaceuticals and Chemicals	30	15,858.06
Textiles	29	1,844.27
Paper and Printing	27	2,946.24
Wood and Leather	25	152.40

Investment Distribution by Sector and District (FY 2022)

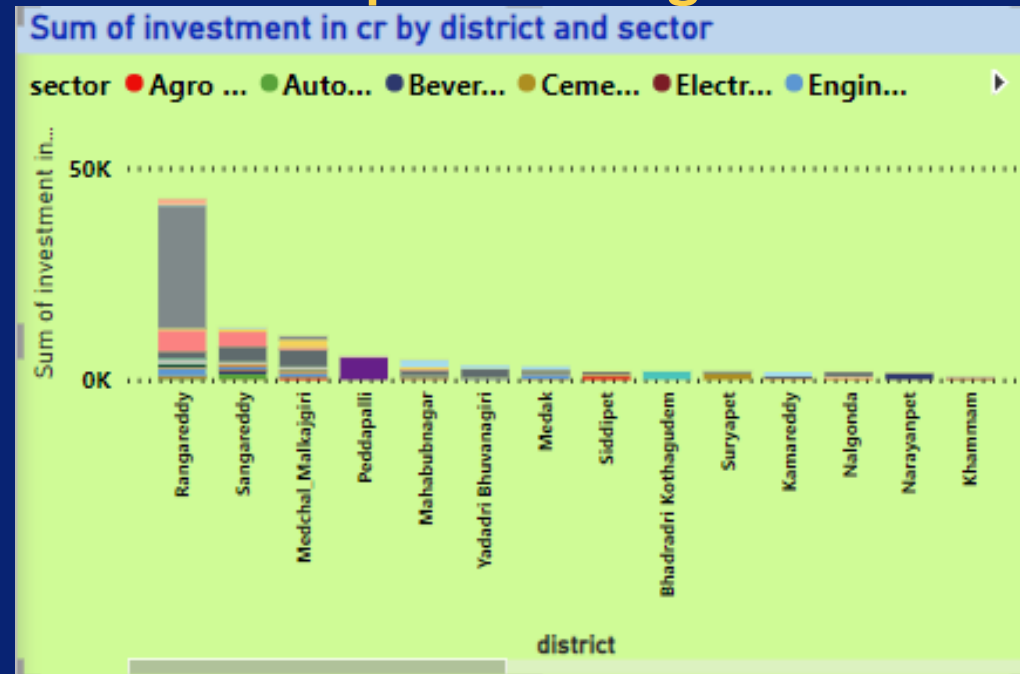
sector	Investments	no_of_districts
Plastic and Rubber	1,599.14	7
Automobile	1,254.27	1
Electrical and Electronic Products	218.83	2
R&D	208.87	5
Others	190.88	11
Pharmaceuticals and Chemicals	147.26	7
Engineering	86.49	8
Food Processing	77.38	20
Agro based incl Cold Storages	23.97	3
Paper and Printing	9.96	4
Cement, Cement & Concrete Products, Fly Ash Bricks	9.03	14

Insights:

The Plastic and Rubber ,Automobile sectors have shown substantial growth across multiple districts in FY 2022. This growth is evident in districts like Hyderabad, Ranga Reddy, and Medchal-Malkajgiri, where these sectors have expanded significantly due to increased demand, technological advancements, and favorable government policies.

PRIMARY QUESTIONS

12. Can we identify any seasonal patterns or cyclicity in the investment trends for specific sectors? Do certain sectors experience higher investments during particular months?



Insights:

Insight: Higher investments were observed during the first and last quarters of the fiscal year, particularly in the IT, Pharmaceuticals, and Real Estate sectors.

Suggestion: Align policy implementations, marketing campaigns, and resource allocations with these peak investment periods to maximize efficiency and impact. Focus on districts like Hyderabad and Ranga Reddy, which show consistent growth during these times.

SECONDARY RESEARCH QUESTIONS

**1. What are the top 5 districts to buy commercial properties in Telangana?
Justify your answer.**

Top 5 Districts to Buy Commercial Properties in Telangana

Insight: Based on recent data and trends, the top 5 districts to buy commercial properties in Telangana are:

1. **Hyderabad** - High demand due to being a major IT and business hub.
2. **Ranga Reddy** - Proximity to Hyderabad with growing commercial infrastructure.
3. **Medchal-Malkajgiri** - Rapid development and increasing industrial activities.
4. **Warangal Urban** - Emerging as an educational and commercial center.
5. **Nalgonda** - Strategic location with improving connectivity and infrastructure.

SECONDARY RESEARCH QUESTIONS

What significant government policies or initiatives were put into effect to enhance economic growth, investments, and employment in Telangana? Can we quantify the impact of these policies using available data?

Significant Government Policies or Initiatives in Telangana

1.TS-iPASS (Telangana State Industrial Project Approval and Self-Certification System):

- Simplified approval process for new industrial projects.
- Quantifiable impact: Reduction in project approval time, significant boost in industrial investments.

2.T-Hub:

- Premier innovation hub fostering startups.
- Quantifiable impact: Creation of numerous startups, boosting innovation and employment.

3.Information Technology Investment Region (ITIR):

- Large-scale IT infrastructure development.
- Quantifiable impact: Attracted major IT firms, creating high-paying jobs and boosting the economy.

4.T-IDEA (Telangana State Industrial Development and Entrepreneur Advancement) - Incentives for industries to promote investment and employment.

SECONDARY RESEARCH QUESTIONS

Provide top 5 Insights & 5 recommendations to Telangana government for sustained growth in the next 5 years based on your analysis.

Top 5 Insights & Recommendations for Sustained Growth

Top 5 Insights:

- 1.IT and Pharmaceuticals Lead Growth** - Consistent investments in IT and pharmaceutical sectors across multiple districts.
- 2.Hyderabad and Ranga Reddy as Investment Hubs** - Highest sector investments, vehicle sales, and stamp revenues.
- 3.Seasonal Investment Patterns** - Higher investments in the first and last quarters of the fiscal year.
- 4.Growing Demand for Commercial Properties** - High demand in key districts due to strategic location and infrastructure development.
- 5.Positive Correlation** - Between sector investments, vehicle sales, and stamp revenues.

Top 5 Recommendations:

Expand IT and Pharma Infrastructure: Invest in IT parks and pharmaceutical zones in emerging districts to balance growth.

- 1.Develop Integrated Economic Zones:** Create zones that combine industrial, commercial, and residential areas to stimulate overall development.
- 2.Promote Year-Round Investments:** Implement initiatives to encourage investments throughout the year, not just in peak periods.
- 3.Support Small and Medium Enterprises (SMEs):** Provide financial incentives and support programs for SMEs to boost local economies.
- 4.Improve Connectivity:** Enhance transportation and digital infrastructure to attract more investments and improve accessibility in less developed districts.

REFERENCE

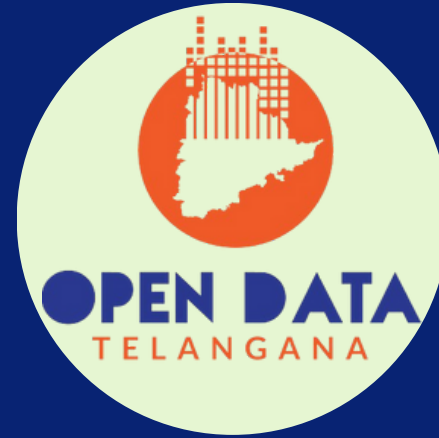
The dataset is taken from Open Data Telangana

<https://data.telangana.gov.in/>

Project Opportunity Provided by Codebasics

<https://codebasics.io/challenge/codebasics-resume-project-challenge>

CONCLUSION



Thank You