IMARTICUS LEARNING

Data Science and Analytics

"TechNova Fundraising Analysis Report (2020-2024)"

Using Tableau

2025.1

Prepared by
Shubham Tiwari

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Introduction

TechNova, an emerging tech startup, has secured significant investments from 2020 to 2024, reflecting its growth potential.

This report analyzes TechNova's fundraising from 2020–2024, using Tableau visualizations to uncover investment trends and inform strategic growth.

Using pie charts, bar charts, bubble charts, line graphs, and geographic maps, it examines funding distribution across investor types, rounds, and years, as well as the funding-valuation relationship. The analysis provides actionable insights for Technova to inform strategic decisions, optimize fundraising strategies, and identify growth opportunities in a regional competitive market.

Data Preparation and Initial Setup

- **Open Tableau and connect to the dataset**. Go to "`Connect`" > "`Text/CSV`" > Select "TechNova_fundraising_data.csv".

- **Verify that all fields are loaded correctly in the Data Source pane** `Company_Name`, `Funding_Round`, `Investor_Type`, `Industry`, `Region_Invest`, `Year`, `Amount_Raised_crores`, and `Valuation_Crores`.

- **Check for Missing Columns or missing fields in dataset**. In the Data Source tab, select the imported sheet and inspect for missing columns or fields.

- **Verify Dimension and Measure fields**. Ensure categorical fields (`Company_Name`, `Funding_Round`, `Investor_Type`, `Industry`, `Region_Invest`, `Year`) are classified as dimensions, and numeric fields (`Amount_Raised_crores`, `Valuation_Crores`) are classified as measures.
  To adjust, right-click each field > Convert to Measure/Dimension

- **Assign Georaphic Role**. For the map visualization, ensure `Region_invest` has a geographic role.
  Right-click `Region_Invest` > "Geographic Role" > Select "City".

- **Verify Tableau generates** `Latitude (generated)` and `Longitude (generated)` for regions (Pune, Noida, Chennai).

- **Format currency.** Format `` `Amount_Raised_crores` ``, `` `Valuation_Crores` ``, `'Amount_invested_On_Operations'` to use a custom currency: Right-click each field > "Default Properties" > "Number Format" >"Currency (Custom)"> Set formula #,##0" Cr". This Set suffix as "Cr" (crores) for values.

- **Apply Initial Filters**

  Apply Year Filter

  Drag `Year` to the Filters pane > Right-click > "Edit" > Select "Range of Dates" > Set range to 2020–2024.

  Apply Investor_Type Filter

  Drag `Investor_Type` to the Filters pane > Right-click > "Edit" > Select all investor types (Angel Investors, Incubators/Venture Capital, Private Equity Investors).

  Apply Funding_Round Filter

  Drag `Funding_Round` to the Filters pane > Right-click > "Edit" > Select all funding rounds (Seed, Series A, Series B).

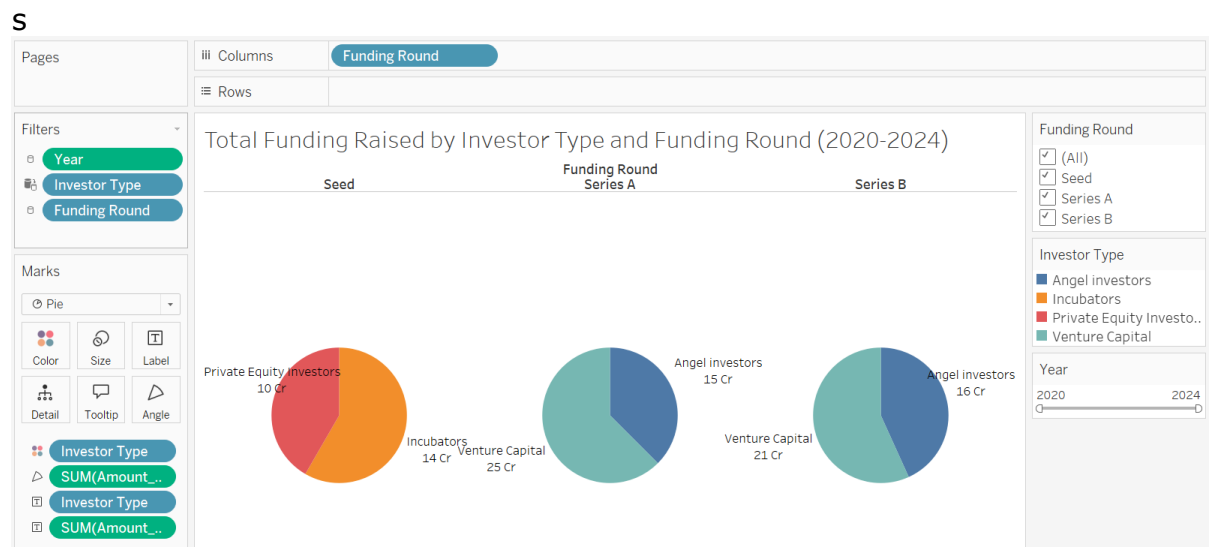 To display filters on visualizations, right-click each filter > "Show Filter".

Total Funding Raised by Investor Type & Funding Round (Pie Chart, 2020-2024)

🔵 Goal of the Visualization

The goal is to analyze Technova's total funding raised from 2020 to 2024 across various investor types (Angel Investors, Incubators/Venture Capital, Private Equity Investors) and funding rounds (Seed, Series A, Series B) to inform strategic fundraising planning for startups and investors.

🔵 Steps Performed

- Drag `Funding_Round` to the "Columns" shelf to create separate pie charts for Seed, Series A, and Series B.
- Drag `Investor_Type` to the "Color" mark to differentiate investor types within each pie chart (Angel Investors: Blue, Incubators/Venture Capital: Teal, Private Equity Investors: Orange).
- Set the "Marks" type to "Pie" to create pie charts for each funding round.
- Drag `SUM(Amount_Raised_crores)` to the "Size" mark to determine pie slice sizes based on total funding.
- Drag `SUM(Amount_Raised_crores)` to the "Label" mark to display the total amount on each pie slice (e.g., 14 Cr, 21 Cr).
- Show the `Investor_Type` legend on the right with assigned colors.
- Show the `Funding_Round` and `Year` filters on the worksheet.
- Add title: "Total Funding Raised by Investor Type (2020-2024)".

🔵 Key Insights

- **Seed Stage (24 Cr):** Private Equity (10 Cr), Incubators (14 Cr). invested heavily in early stages between 2020-24.
- **Series A (40 Cr):** Venture Capital (25 Cr) dominated, supporting scaling over years.
- **Series B (37 Cr):** Balanced funding across Angel Investors (16 Cr), Venture Capital (21 Cr) showing diversified interest between 2020-24.

Annual Operational Investments (Bubble Chart, 2020-2024)

● Goal of the Visualization

The goal is to visualize the total funding invested by TechNova each year from 2020 to 2024 to highlight the magnitude of investments over time. This helps Technova understand its overall investment trends and identify peak years, without regional breakdown.

● Steps Performed

- Drag `Year` to the "Columns" shelf to plot years (2020–2024) on the x-axis.
- Drag `SUM(Amount_Invested_On_Operations)` to the "Rows" shelf to position bubbles based on total funding per year.
- Drag `SUM(Amount_Invested_On_Operations)` to the "Size" mark to determine bubble size based on the total funding.
- Drag `SUM(Amount_Invested_On_Operations)` to the "Color" mark to vary bubble color intensity (light blue to dark blue).
- Drag `SUM(Amount_Invested_On_Operations)` to the "Label" mark to display the total funding on each bubble (e.g., 28 Cr).
- Set the "Marks" type to "Circle" to create a bubble chart.
- Adjus

- t transparency in the "Color" mark (e.g., set to 70% opacity) to handle potential bubble overlaps.
- Use a color gradient (light blue to dark blue) for `SUM(Amount_Invested_On_Operations)` to reflect Invested magnitude.
- Adjust bubble size range in the "Size" mark (e.g., 30 to 40) for clarity.

- Add title: " Amount Invested_On_Operations Over Years (Bubble Chart, 2020-2024)".
- Add a border, remove gridlines for clarity

Tableau Workspace

Pages		Columns	Year
		Rows	SUM(Amount_Invest..)

Filters
- Year
- Investor Type
- Funding Round

Marks

Circle

Color	Size	Label
Detail	Tooltip	

- SUM(Amount_I..)
- SUM(Amount_I..)
- SUM(Amount_I..)

Annual Operational Investments (2020-2024)

(Bubble chart, Y-axis: Amount_Invested_On_Operations in Cr, X-axis: Year)

- 2020: 20 Cr
- 2021: 20 Cr
- 2022: 11 Cr
- 2023: 28 Cr
- 2024: 21 Cr

Legend: SUM(Amount_Invested...) 11 Cr — 28 Cr

SUM(Amount_Invested...): 11 Cr, 15 Cr, 20 Cr, 25 Cr, 28 Cr

🔵 Key Insights

- **2020:** 20 Cr (strong start, driven by Seed funding in Pune).
- **2021:** 20 Cr (consistent investment over operations).
- **2022:** 11 Cr (lowest investment over operations, reflecting a slowdown).
- **2023:** 28 Cr (peak investment year).
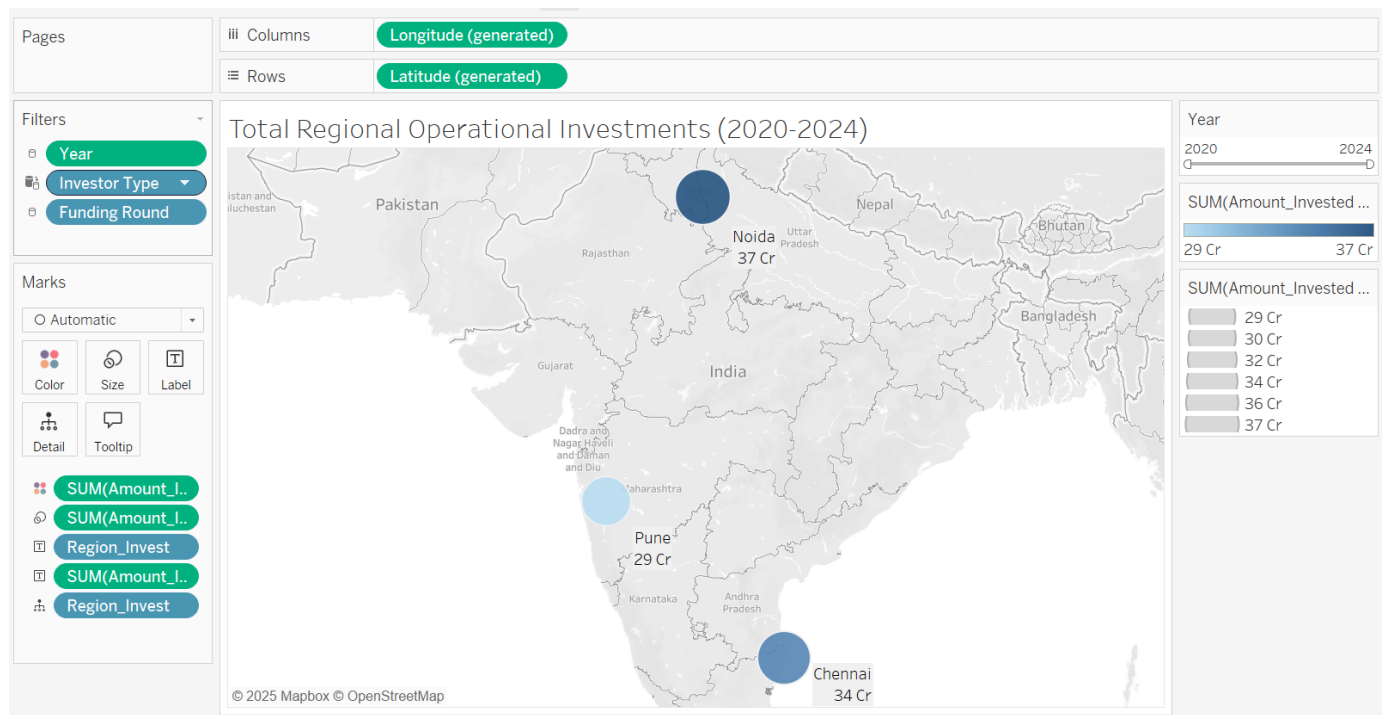- **2024:** 20 Cr (sustained high investment).

Annual Regional Operational Investments (Map Chart, 2020-2024)

🔵 Goal of the Visualization

The goal is to visualize the total funding distribution across each regions (Pune, Noida, Chennai) from 2020 to 2024, using a geographic map to show the spatial spread of investments. This helps Technova identify which regions received the most investment over the specified period and track regional investment trends over time.

🔵 Steps Performed

- Drag `Longitude (generated)` to the "Columns" shelf and `Latitude (generated)` to the "Rows" shelf to generate a map.
- Drag `Region_Invest` to the "Detail" mark to plot regions (Pune, Noida, Chennai).
- Drag `SUM(Amount_Raised_crores)` to the "Size" mark to determine bubble size.
- Drag `SUM(Amount_Raised_crores)` to the "Color" mark to vary bubble color intensity (darker for higher values).
- Drag `SUM(Amount_Raised_crores)` and `Region_Invest` to the "Label" mark to display values (e.g., "37 Cr, Noida").
- Set the "Marks" type to "Circle" to create bubbles on the map.
- Adjust transparency in the "Color" mark (e.g., set to 70% opacity) for better visibility.
- Set the map style to "Light" via "Map" > "Map Layers", disabling unnecessary details.

- Add title: "Total Regional Investment (Map Chart 2020-2024)".
- Add a border, remove gridlines for clarity

🔵 Key Insights

- **Noida:** 37 Cr (highest investment, a key investment hub).
- **Chennai:** 34 Cr (strong investment, second-highest).
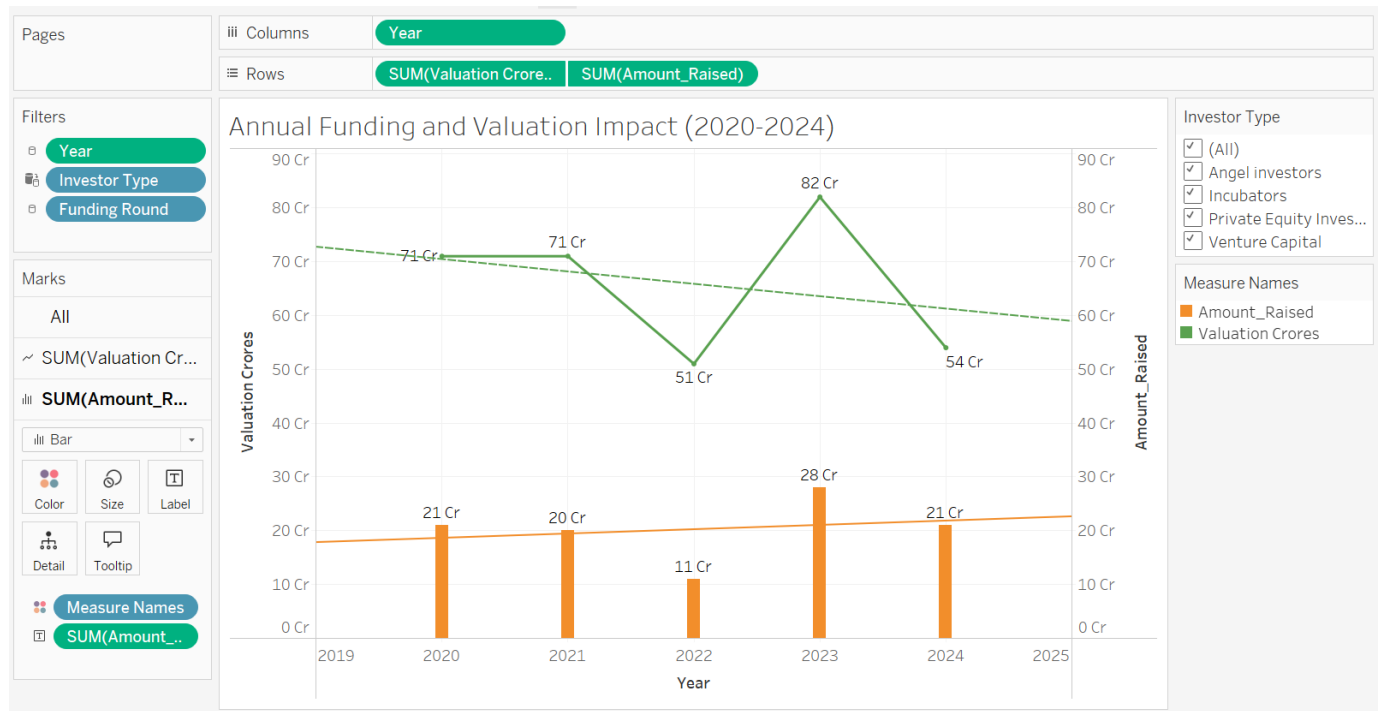- **Pune:** 9 Cr (lowest investment between 2020-24).

Annual Funding and Valuation Impact (Line-Bar Chart, 2020-2024)

🔵 Goal of the Visualization

The goal is to compare the trends in total funding received by Technova and valuation of TechNova from 2020 to 2024, to understand the relationship between funding and company valuation growth over time.

🔵 Steps Performed

- Drag `Year` to the "Columns" shelf to plot years (2020–2024) on the x- axis.
- Drag `SUM(Valuation_Crores)` to the "Rows" shelf to create the valuation line.
- Drag `SUM(Amount_Raised_crores)` to the "Rows" shelf to create the funding line.
- Set the "Marks" type to "Line" for both measures to create a dual-axis line chart.
- Right-click the second axis (right side) > Select "Dual Axis" to overlay the lines.
- Synchronize axes: Right-click the right axis > "Synchronize Axis".
- Add Trend lines for Bar and line chart: Right-click > Analyze > Add Trend Line
- Drag `SUM(Valuation_Crores)` and `SUM(Amount_Raised_crores)` to the "Label" mark to display values (e.g., 28 Cr, 20 Cr).
- Drag `Amount_Raised_crores` (Orange) and '`Valuation_Crores` (Green)' to the "Color" mark to differentiate
- Add title: "Valuation Impact (Funding vs Valuation) Year by Year"
- Add a border, remove gridlines for clarity

Annual Funding and Valuation Impact (2020-2024)

🔵 Key Insights

- **2020:** Funding: 21 Cr, Valuation: 71 Cr (valuation 3.38 times funding, indicating a promising start).
- **2021:** Funding: 20 Cr, Valuation: 71 Cr (valuation 3.55 times funding, showing steady growth).
- **2022:** Funding: 11 Cr, Valuation: 51 Cr (valuation 4.64 times funding, highlighting strong impact despite lower funding).
- **2023:** Funding: 28 Cr, Valuation: 82 Cr (valuation 2.93 times funding, experiencing a market adjustment).
- **2024:** Funding: 21 Cr, Valuation: 54 Cr (valuation 2.57 times funding, showing resilient growth).

The funding and valuation trend lines reveal a key dynamic, with increasing funding (peak 28 Cr in 2023) and decreasing valuation multiples (3.38x to 2.57x), highlighting the need for efficient capital use and optimization.
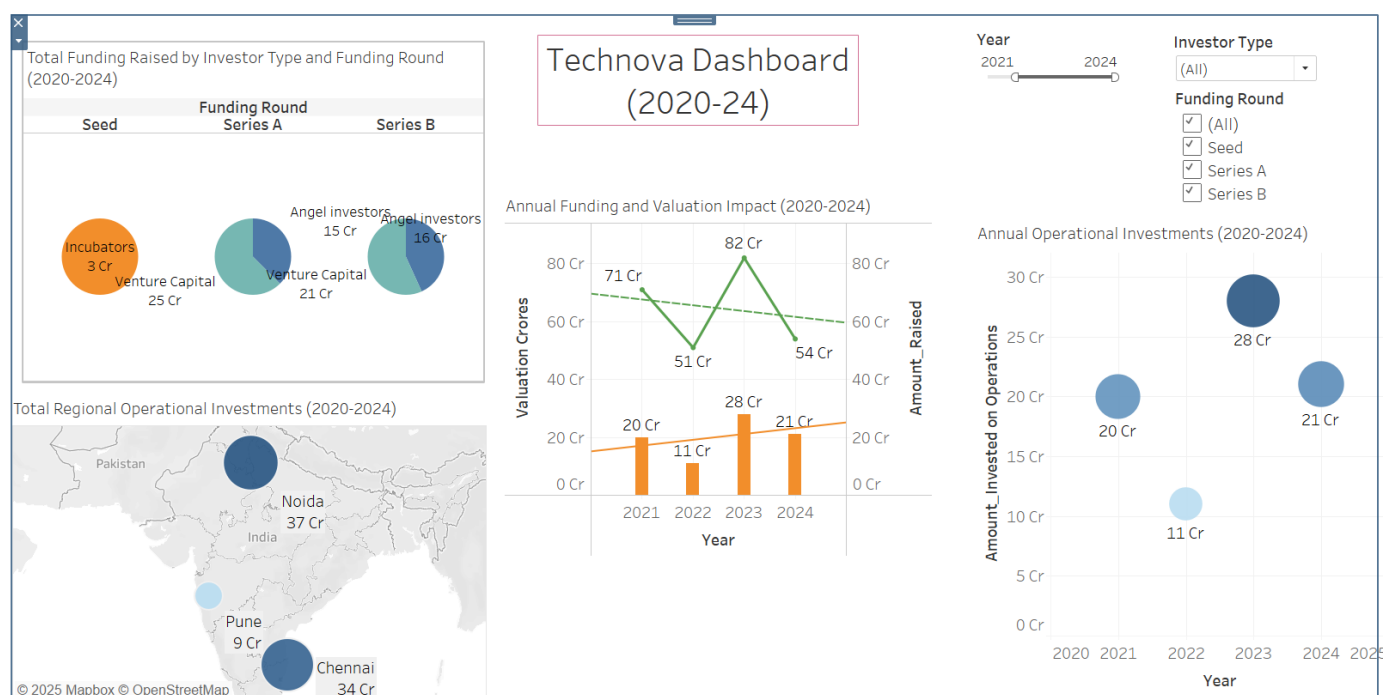
Dashboard Implementation

🔵 Goal of the Dashboard

The goal is to provide a comprehensive view of TechNova's funding dynamics from 2020 to 2024, focusing on:

- **Total Funding Raised by Investor Type and Funding Round (Pie Chart, 2020-2024)**: Understand the contribution of different investor types across funding rounds.
- **Annual Funding and Valuation Impact (Line-Bar Chart, 2020-2024)**: Analyze the relationship between funding and valuation over time.
- **Annual Operational Investments (Bubble Chart, 2020-2024)**: Visualize the total funding per year across all regions.
- **Total Regional Operational Investments (Map Chart 2020-2024)**: Show the geographic distribution of funding across regions (Pune, Noida, Chennai).

The **common filters and slider** allow Technova to interactively explore the data by year, investor type, and funding round, ensuring a unified analysis across all visualizations.

🔵 Steps Performed

Step 1: Create the dashboard: Click the "New Dashboard" icon and name it " Technova DASHBOARD".

Drag the four worksheets onto the canvas: pie chart at the top, map on the bottom left, line chart in the center, bubble chart on the bottom right.

Step 2: Add Common Filters and Slider

Configure the Year Slider: locate the Year filter in Dashboard > Right-click > "Edit Filter" > Show as a slider > set range 2021-2024 (Data filtered for 2021-2024, for readability)

Configure the Investor_Type Dropdown: locate the Investor_Type in Dashboard > Right-click > "Edit Filter" > Show as a dropdown

Configure the Funding_Round Checkboxes: locate the Funding_Round filter in Dashboard shelf > Right-click > "Edit Filter" > Show as checkboxes

Apply to all visualizations: Right-click Slider/ filters > "Apply to Worksheets" > "All using this Data Source"

Conclusion

The TechNova Fundraising Analysis reveals key insights into the startup's financial journey from 2020 to 2024, highlighting funding trends, regional investment patterns over operations, and valuation impacts. Noida and Chennai emerged as primary investment hubs, with Series B funding in 2023 driving a peak valuation of 82 Cr. The analysis underscores the importance of strategic investor engagement and regional focus to sustain growth.

References

Tableau Software Documentation. (2025). Tableau Help Guide. Retrieved from https://help.tableau.com

TechNova Fundraising Dataset. (2024). https://www.kaggle.com.