

Indian Institute of Information Technology, Nagpur
Department of Computer Science and Engineering

Indian Startup Ecosystem Analytics Project.

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Understanding The Data

Project Description

In the evolving landscape of startups, understanding the dynamics of funding is crucial. This dataset provides comprehensive insights into the startup funding ecosystem in India, capturing various aspects of funding activities over the years. From the types of investments to the key players and preferred industries, this dataset offers a rich tapestry of information that can help stakeholders make informed decisions and identify emerging trends.

Purpose

To provide strategic guidance to new investors looking to invest in the Indian startup ecosystem by analyzing data and visualizing which sectors, cities, and types of investments have the highest potential.

Project Importance

Examining this project helps new investors make more informed and strategic decisions in the Indian startup ecosystem. Data-driven insights and visualizations enable investors to minimize risks and capitalize on high-potential opportunities.

About the Datasets

Dataset Descriptions: 'stocks_daily_prices.csv' / 'stocks_daily_returns.csv'

Content: Daily stock prices for various companies.

Rows: 3044

Columns: 10

Sr No: Serial number. A unique identifier for each record.

Date dd/mm/yyyy: The date when the funding event took place.

Startup Name: The name of the startup receiving the funding.

Industry Vertical: The primary industry to which the startup belongs.

SubVertical: A more specific category within the primary industry.

City Location: The city where the startup is headquartered.

Investors Name: The names of the investors or investment firms involved in the funding.

InvestmentnType: The type of investment (e.g., Seed, Series A, Series B).

Amount in USD: The amount of funding received in US dollars.

Remarks: Additional comments or details about the funding event.

Data Cleaning and Preparation

The dependent variable 'Amount in USD' needs some preprocessing, such as removing commas and dealing with empty values.

The 'Date' property needs to be preprocessed and converted to numeric format to be useful for creating charts.

The 'Remarks' property contains about 86.23% empty values, so we can remove it.

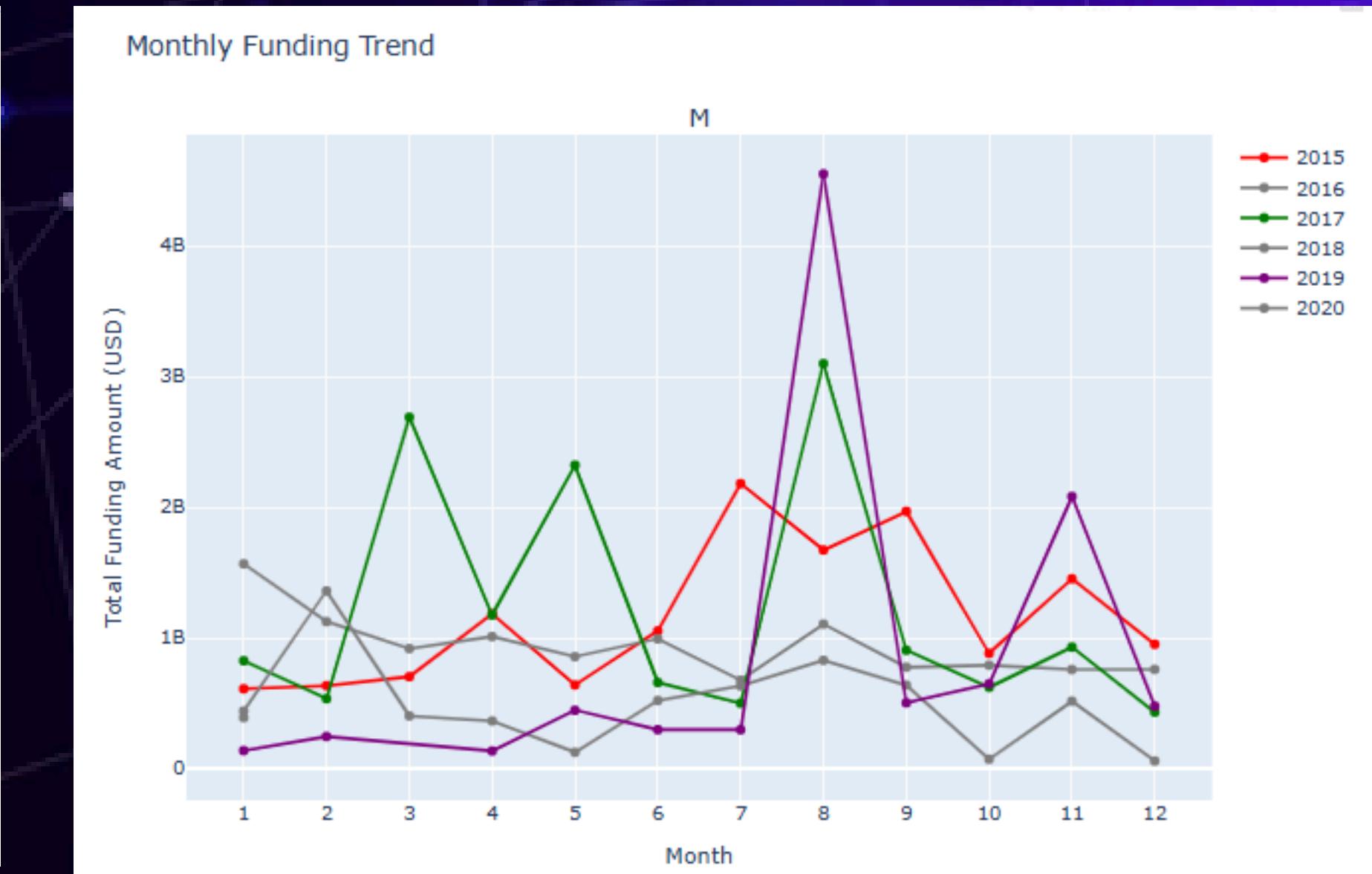
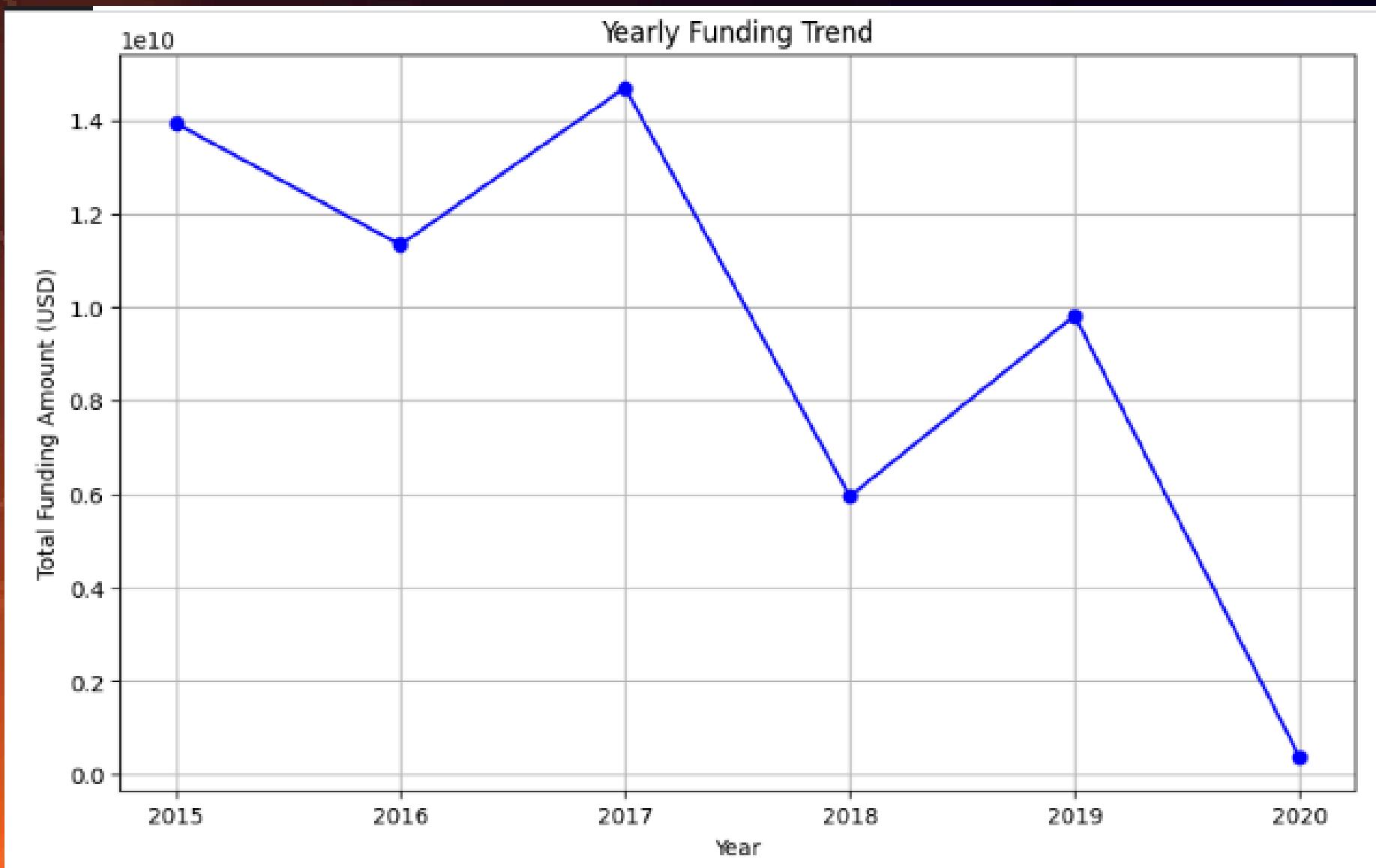
Many Columns like 'Industry Vertical', 'Sub Vertical', 'Investors name' has unmanned data, so we can replace these to it correct data.

Many Columns has the 'NaN' values which can be removed by using mode function and replace it by maximum occurrence element.



*IMPORTANT
EDA
QUESTION'S*

How Does the Funding Ecosystem changes with respect to Time?



Yearly Funding Trend:

The funding amounts exhibit significant variability from year to year.

Peak funding occurred in 2017, with a total amount nearing \$10 billion.

A noticeable decline followed in 2018, and another rise was observed in 2019.

The data for 2020 shows a steep decline, but it's likely incomplete due to the year being partial or ongoing.

Monthly Funding Trend

The monthly funding trend reveals more granular details, with multiple peaks and troughs.

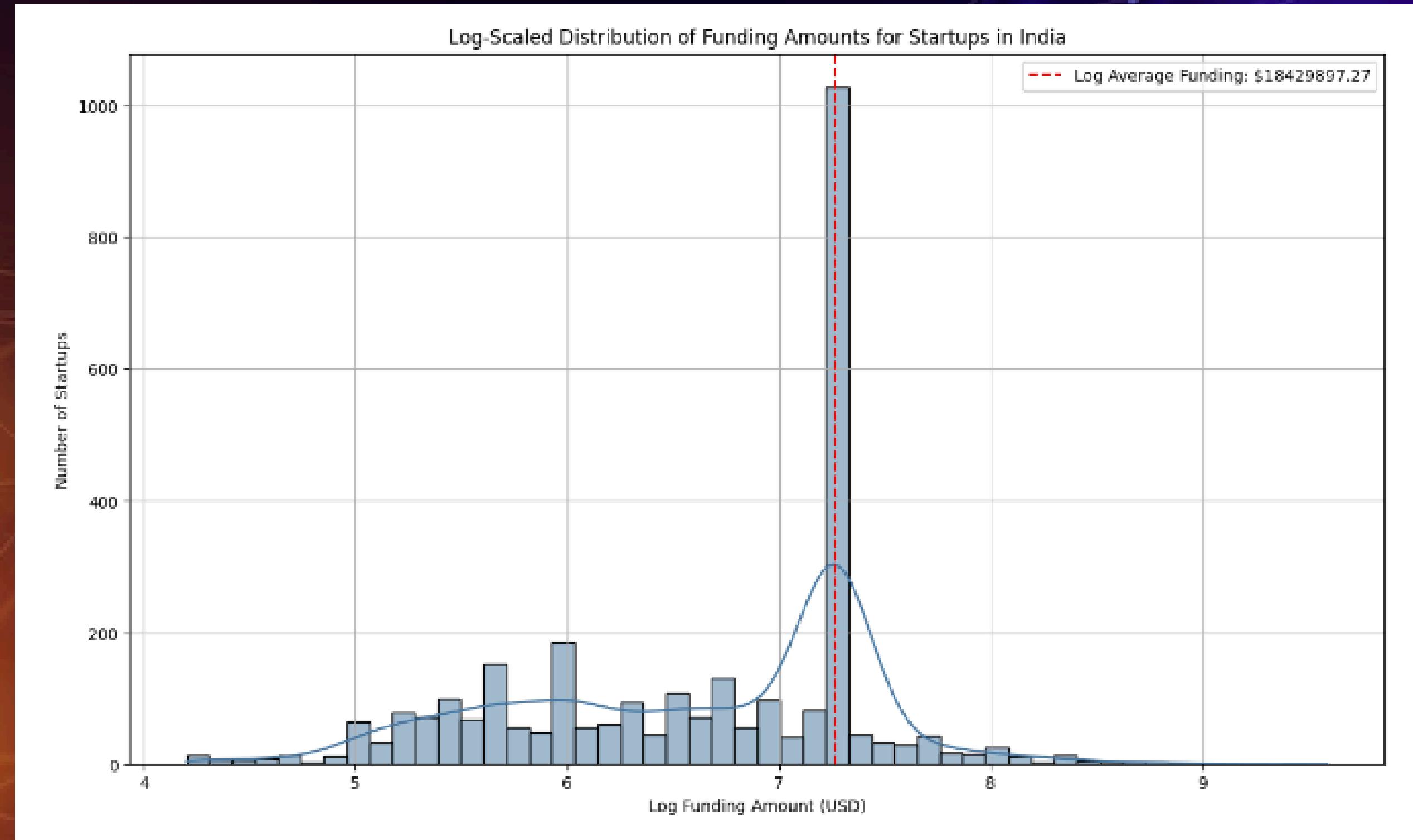
There are significant spikes in certain months, notably in mid-2017 and mid-2019.

Possible Explanations:

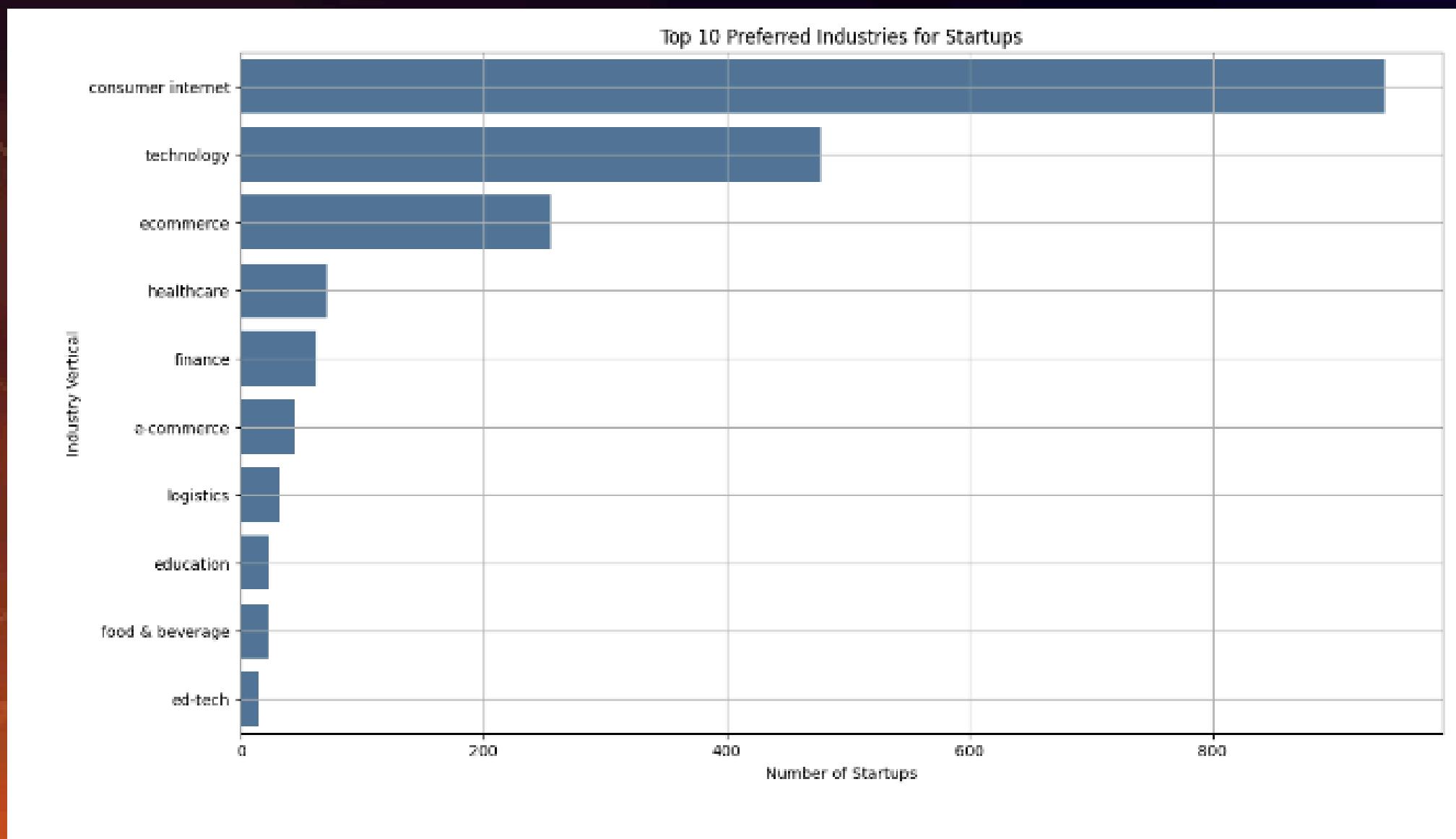
Economic cycles, investor confidence, and macroeconomic factors could be influencing these fluctuations.

Major funding rounds or significant investments in particular years can cause spikes.

What is the General Amount that Startups get in India?



Which Kind of Industries are more preferred for Startups?



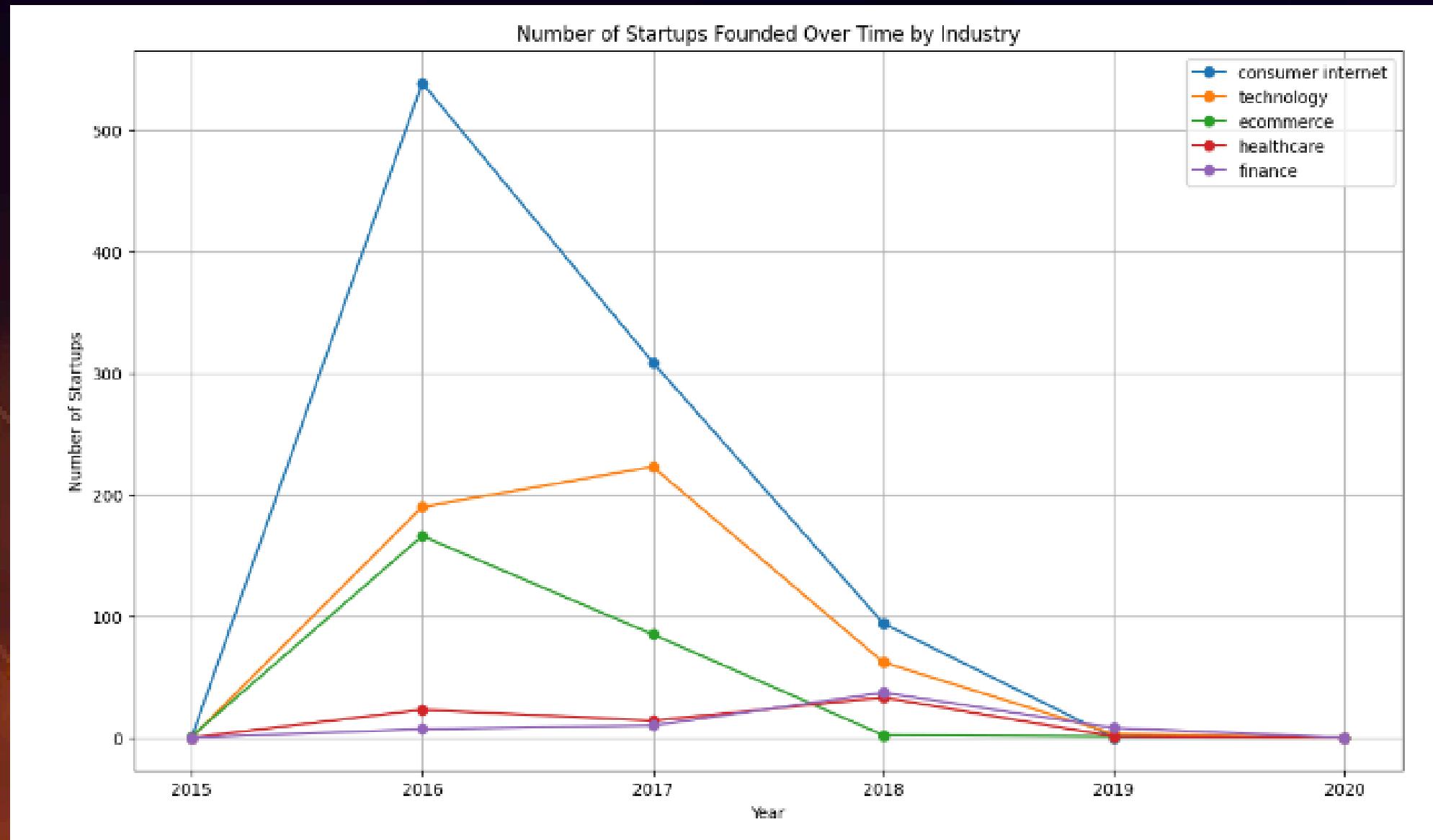
Number of Funding Rounds per Industry

Top Industries:

Consumer Internet: Leading with the highest number of funding rounds (589 rounds).

Technology: Second most active with 310 funding rounds.

E-commerce: Significant presence with 170 funding rounds.



Total Funding Amount per Industry

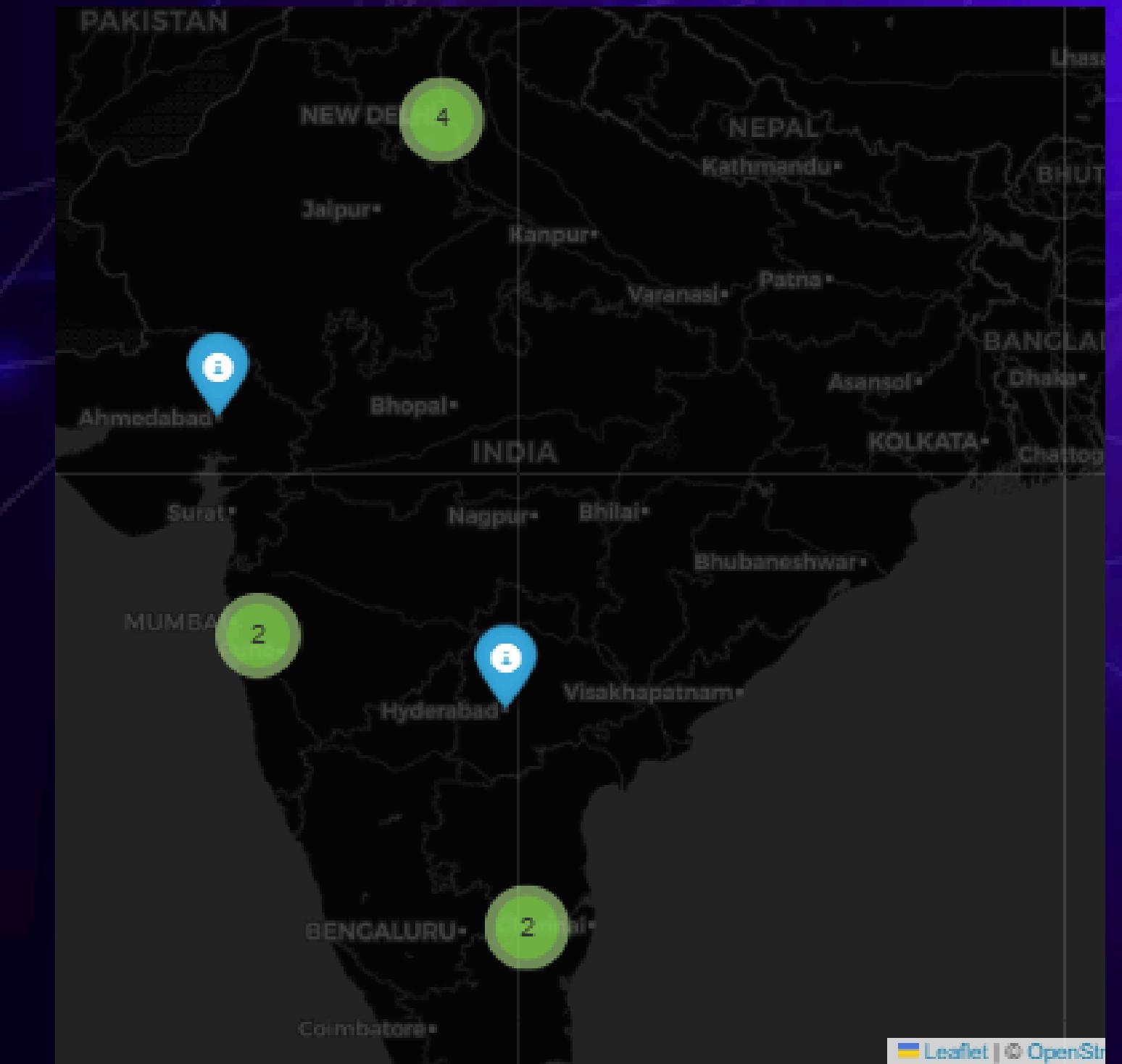
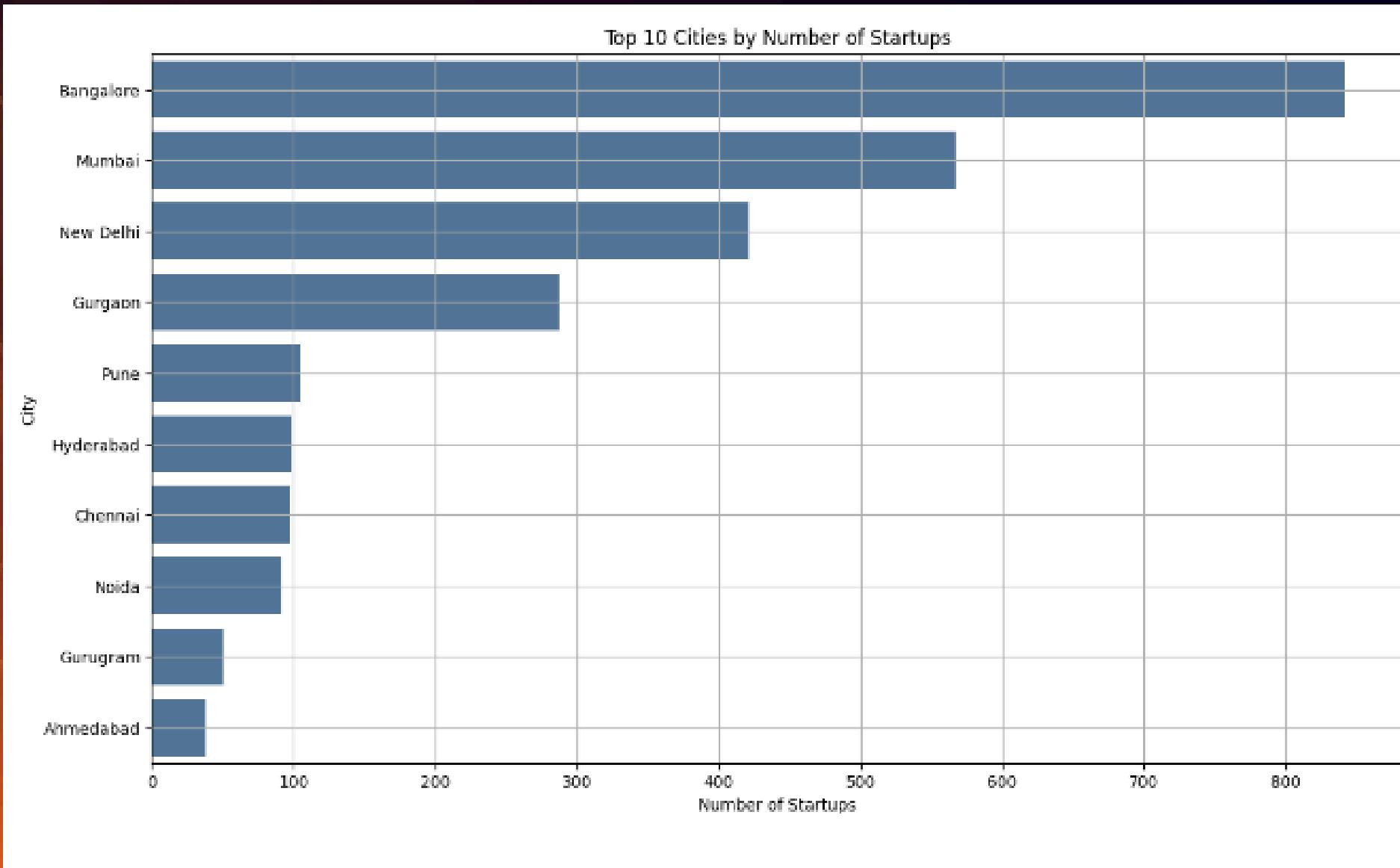
Top Funded Industries:

E-commerce: Secured the highest total funding amount, indicating large investments in this sector (\$7.16 billion).

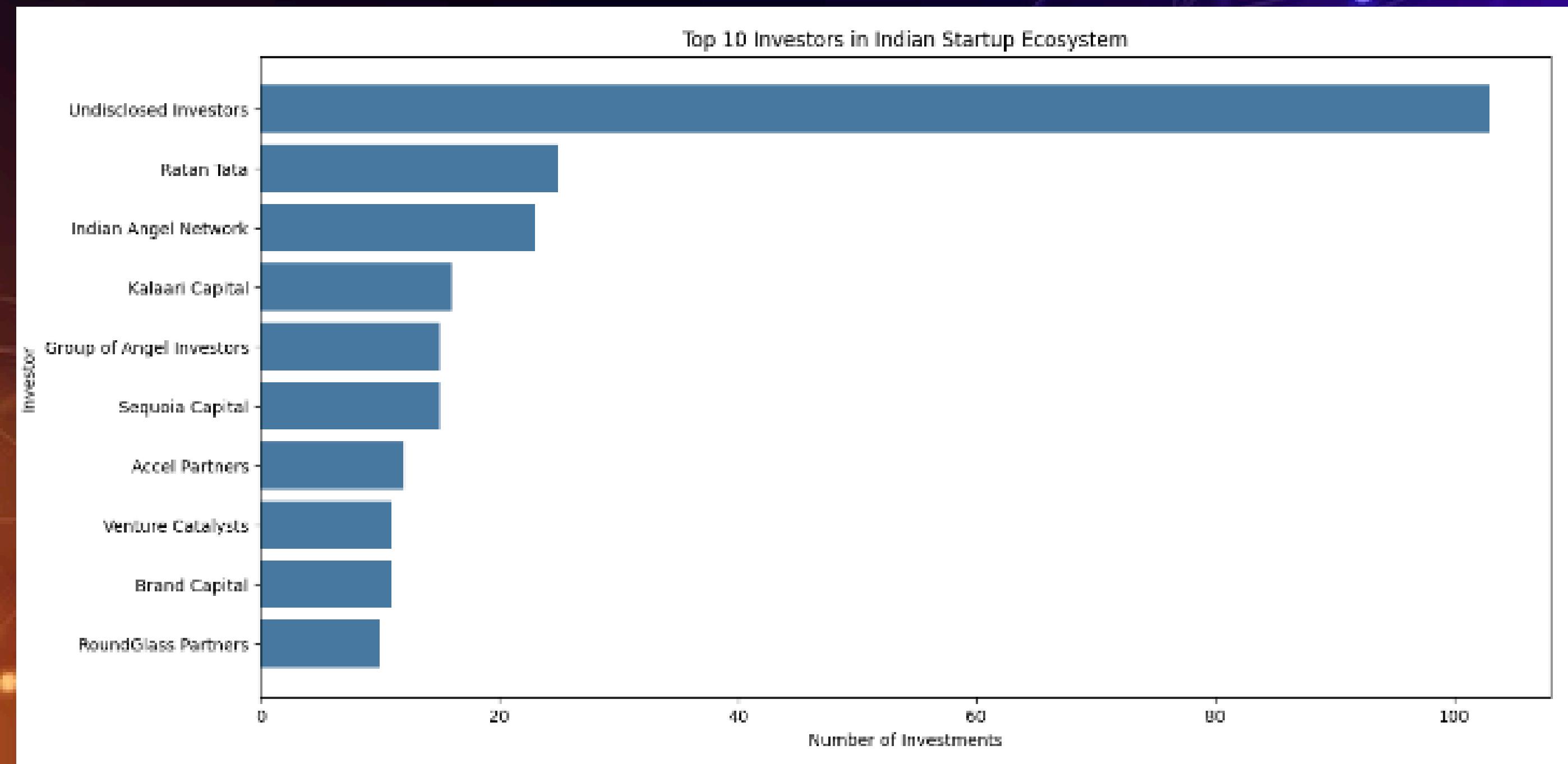
Consumer Internet: Close behind with substantial funding (\$6.25 billion).

Technology: Also received considerable funding (\$2.23 billion).

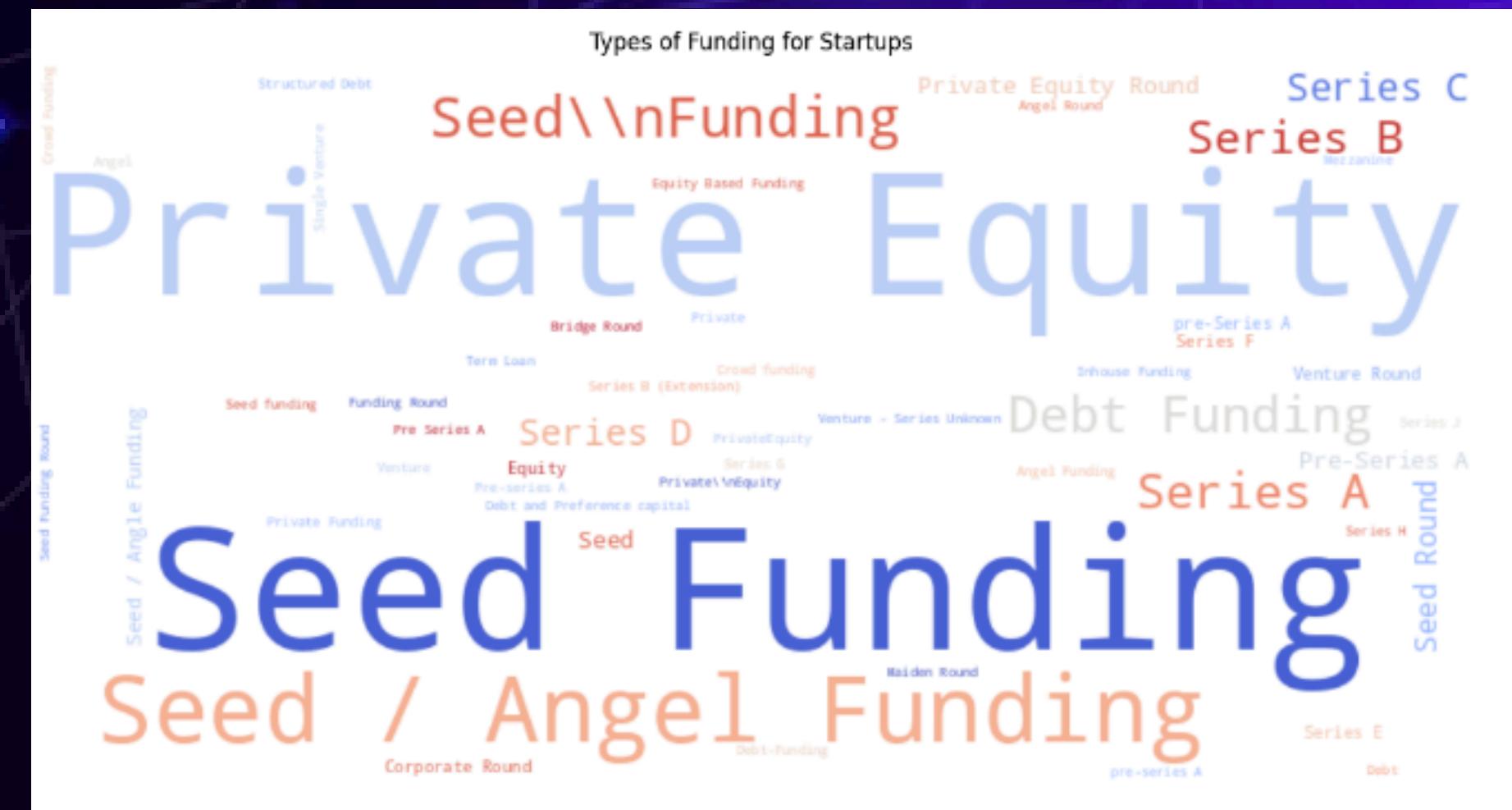
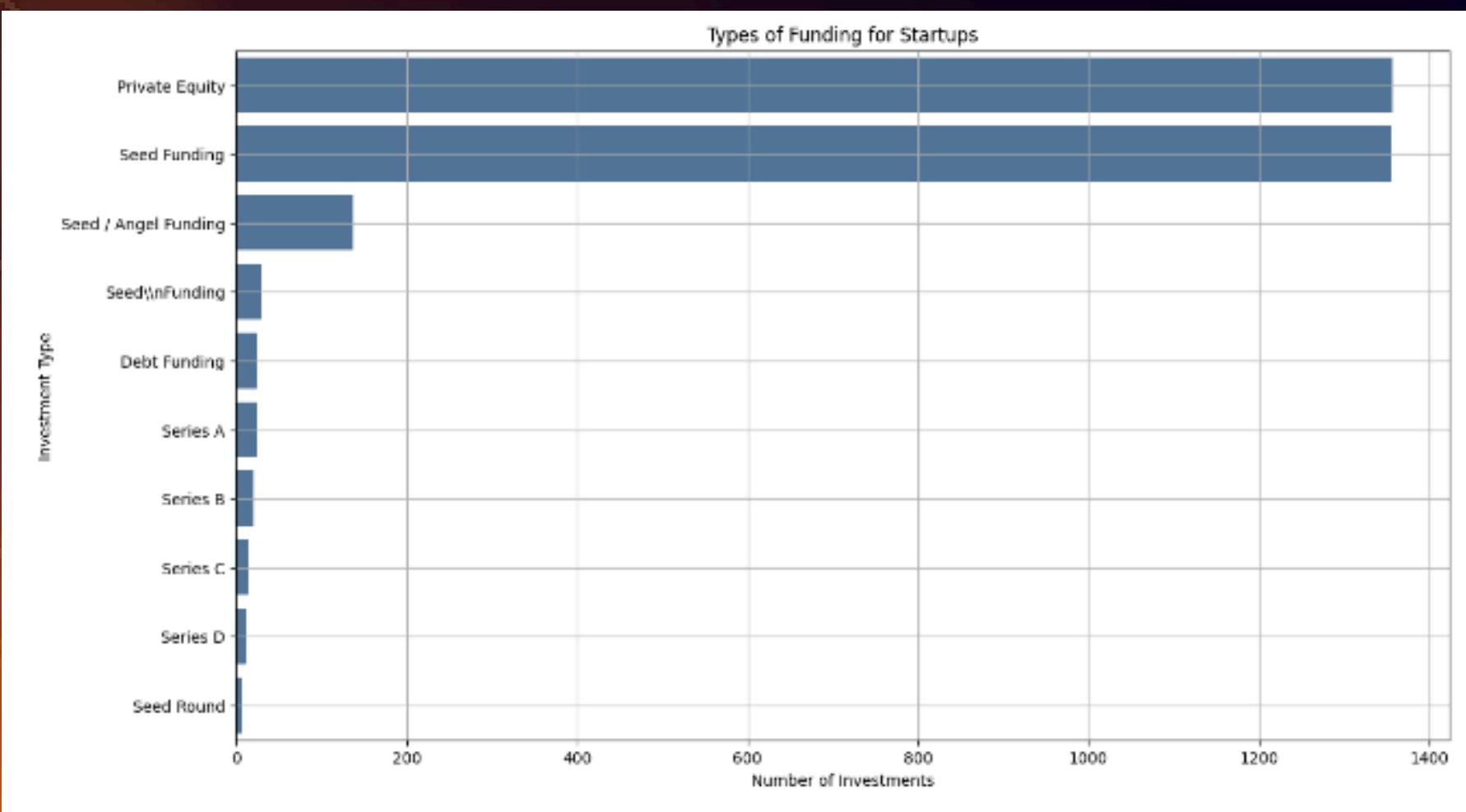
Does Location also play a role, In determining the Growth of a Startup?



Who plays the main role in Indian Startups Ecosystem?



What are the different Types of Funding for Startups?





POWER
BI

The text "POWER BI" is enclosed within a thick, yellow, L-shaped bracket. The word "POWER" is written in red capital letters, and "BI" is written in red capital letters inside a yellow vertical bar. The background features a dark blue gradient with a network of glowing orange and purple lines and dots, creating a futuristic, digital feel.

Indian Startup Economy Analysis

1130

Count of Startup Name

\$30.8...

Sum of Amount in ...

81

Count of City Location

37

Count of Investment...

1078

Count of Investors Name

379

Count of Industry Vertical

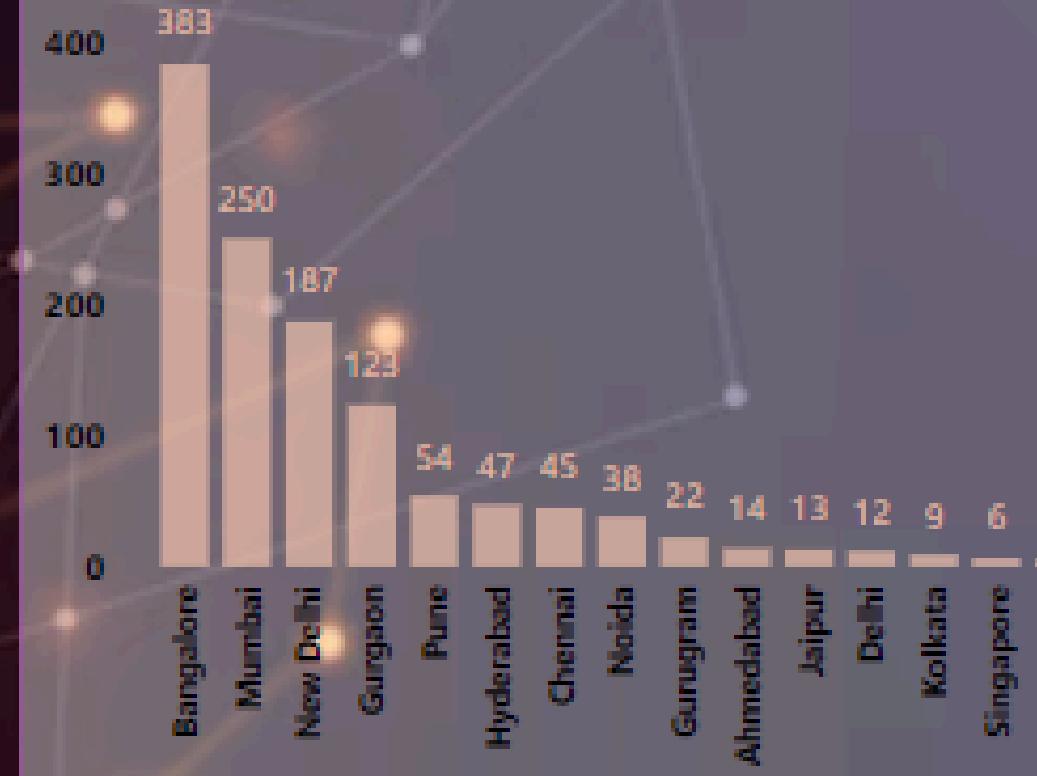
842

Count of SubVertical

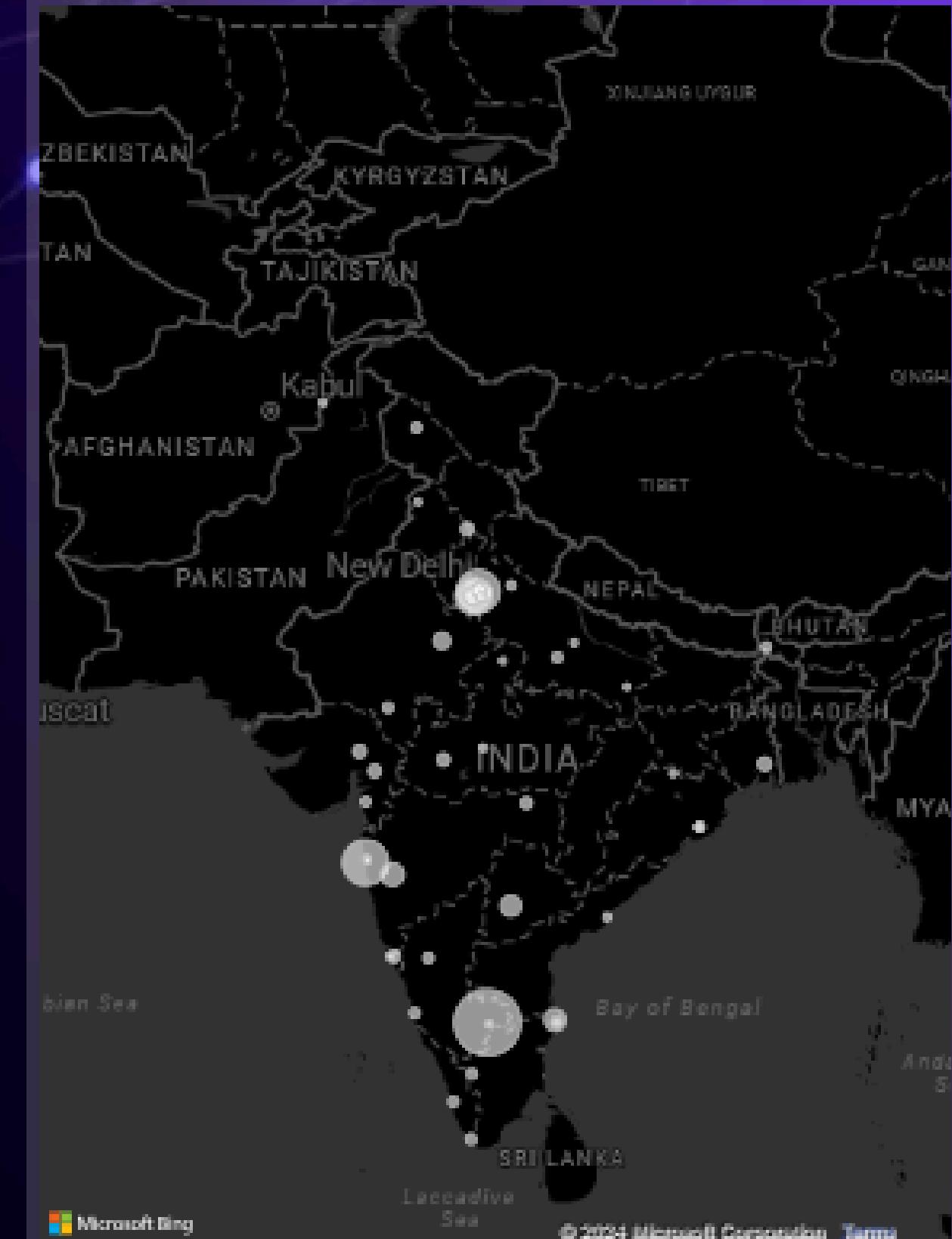
Sum of Amount in USD by City Location



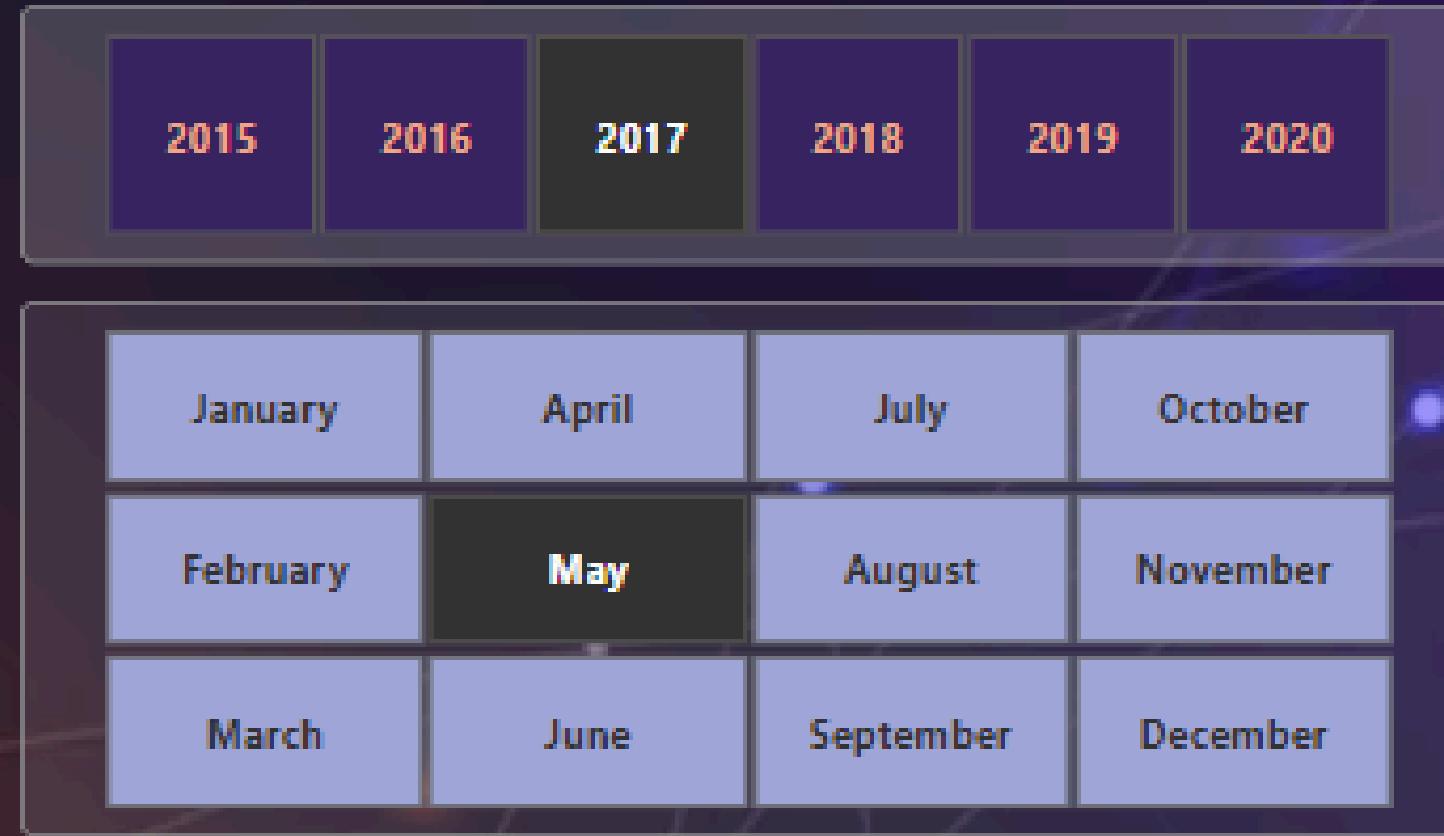
Count of Startup Name by City Location



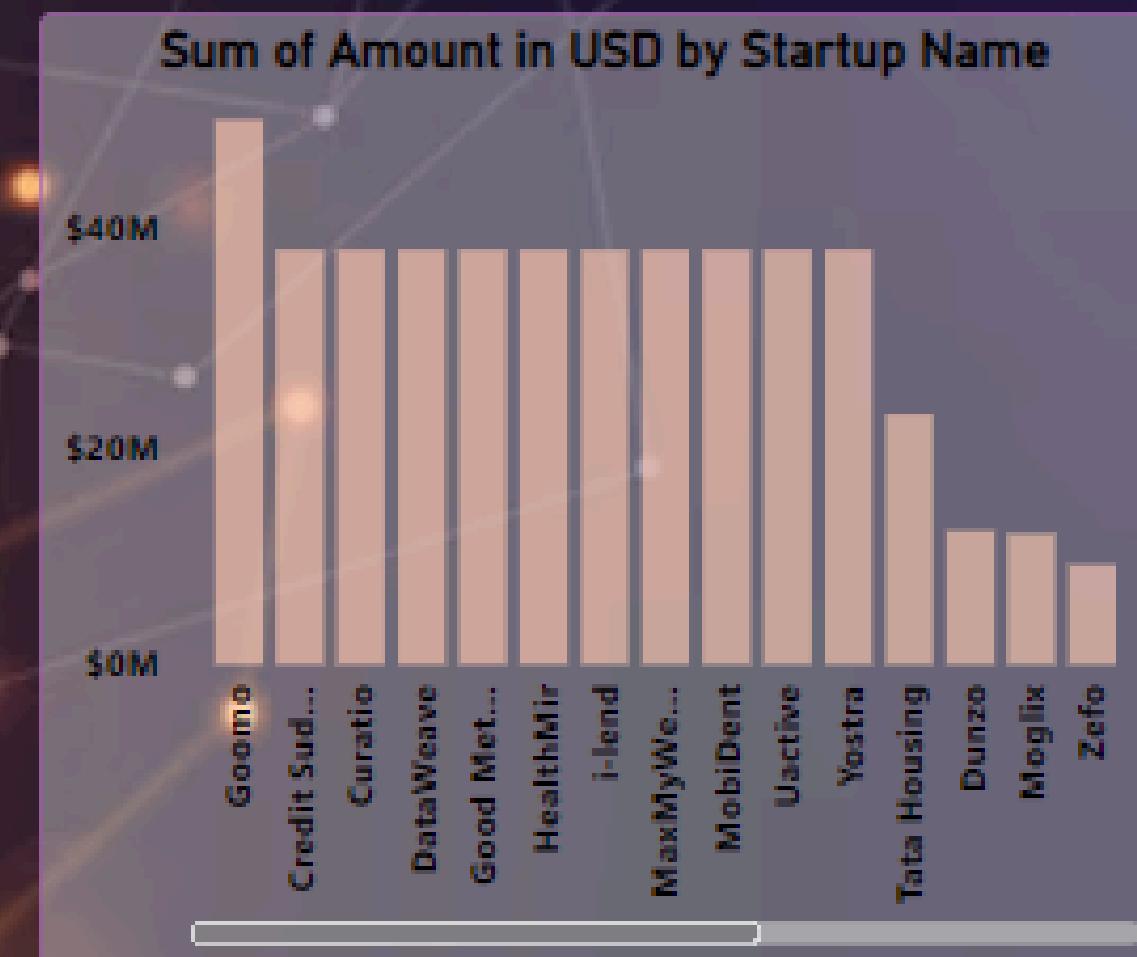
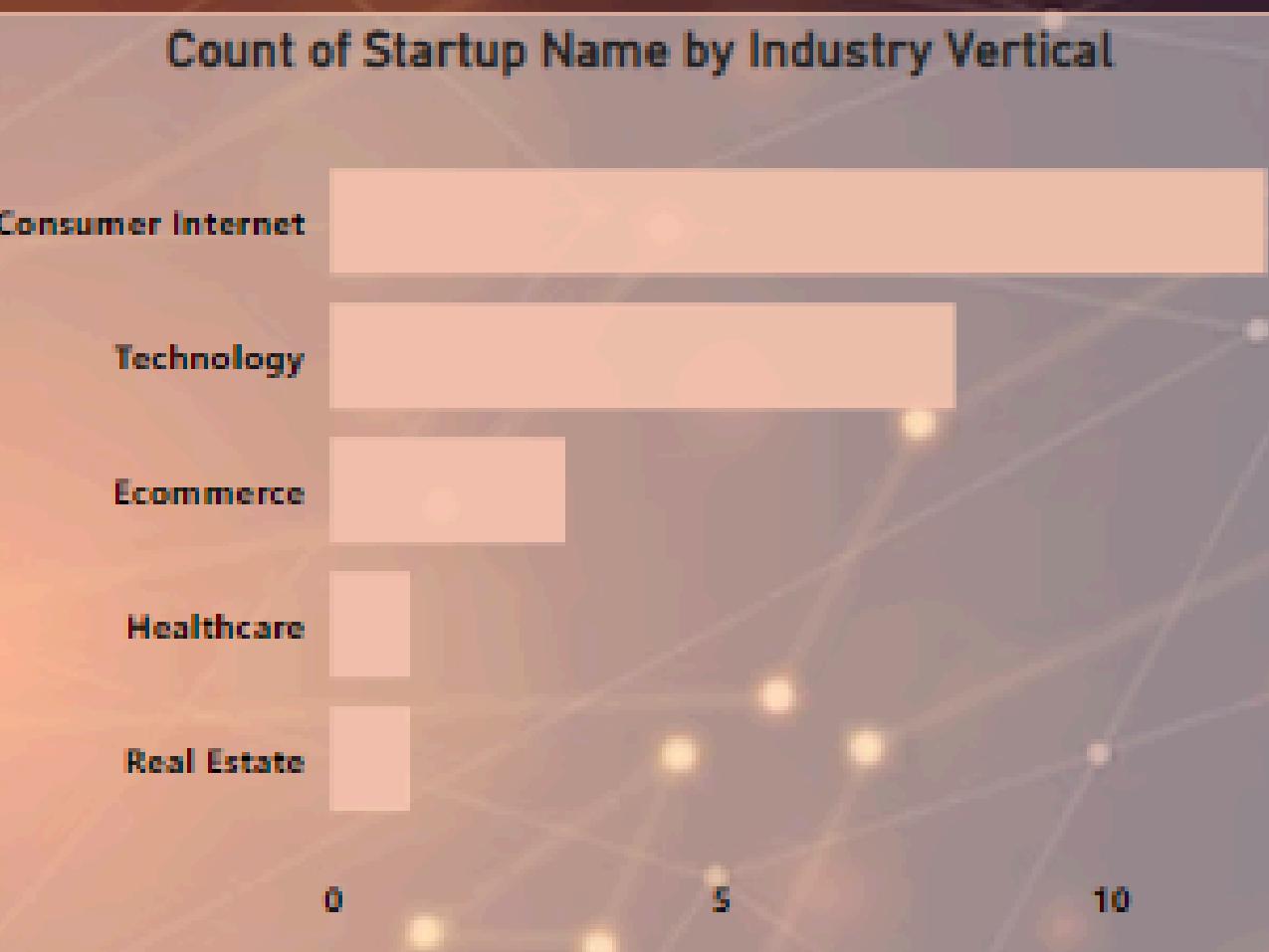
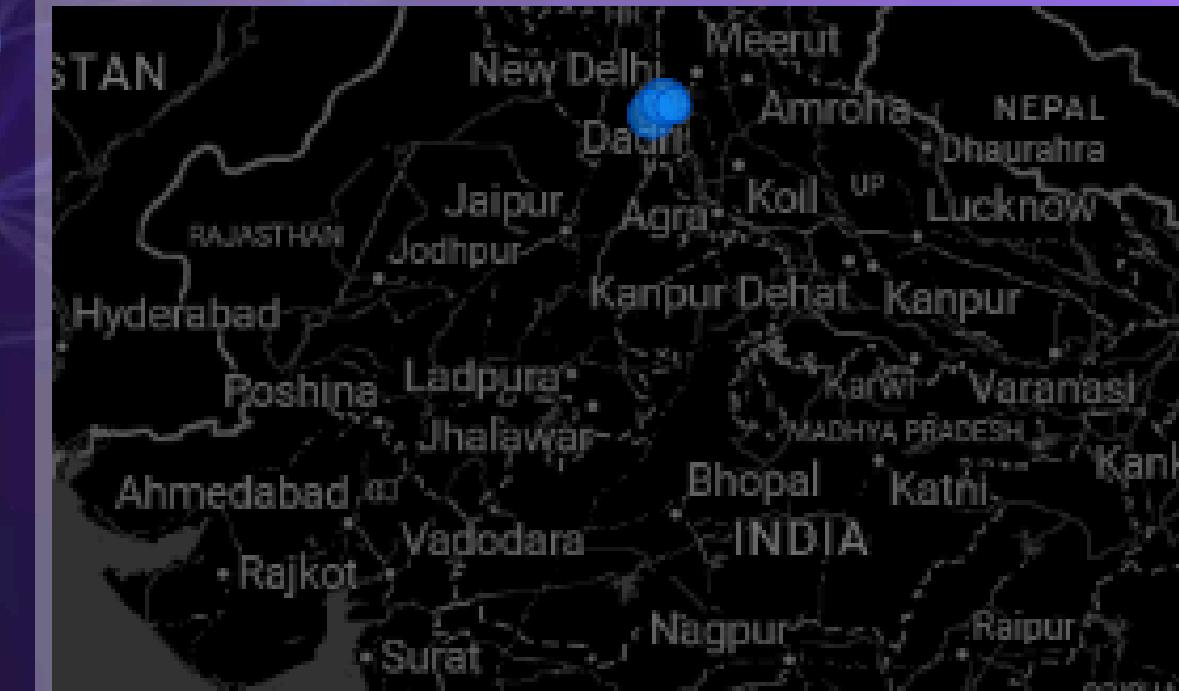
Sum of Amount in USD and Count of Startup Name by City Location



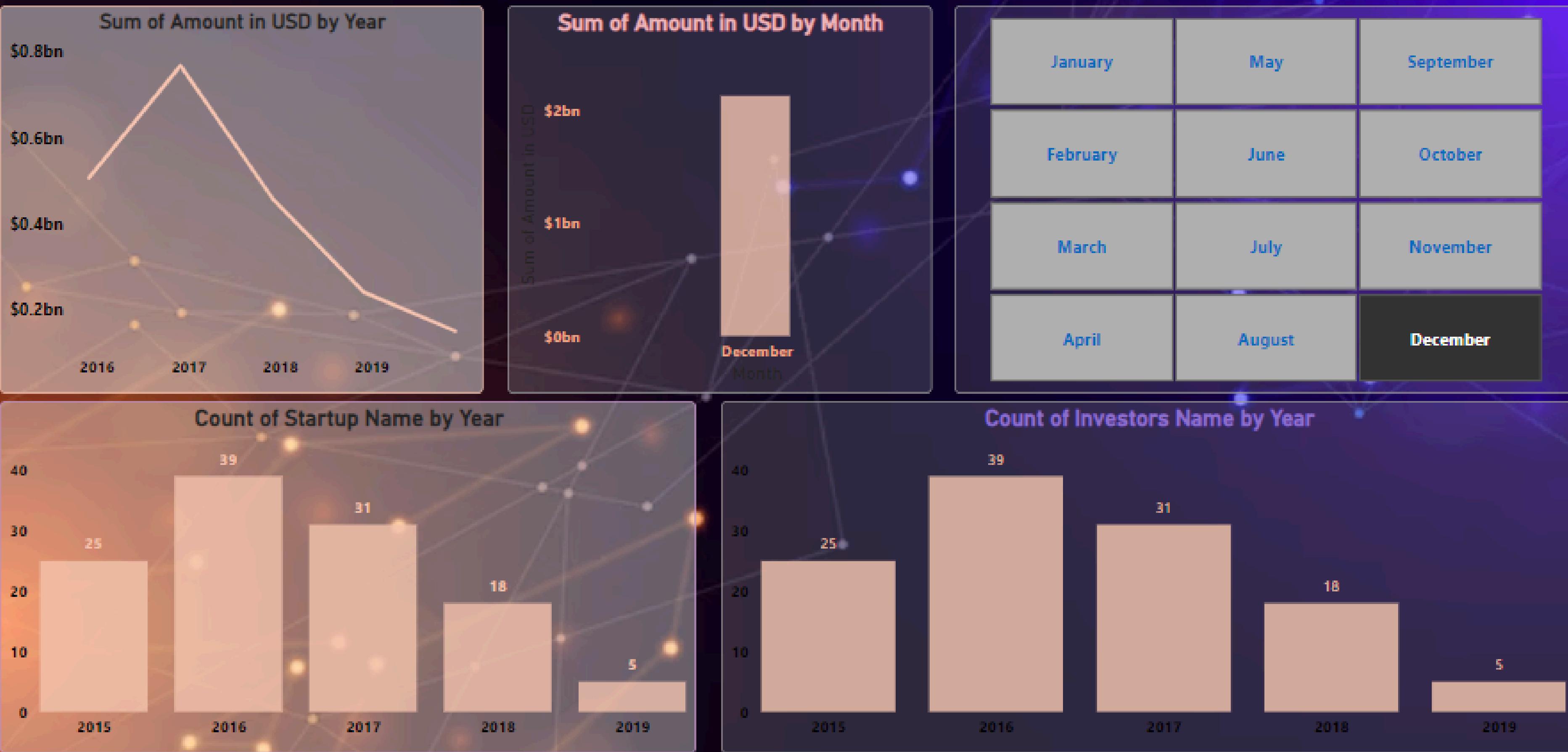
Indian Startup Economy Analysis



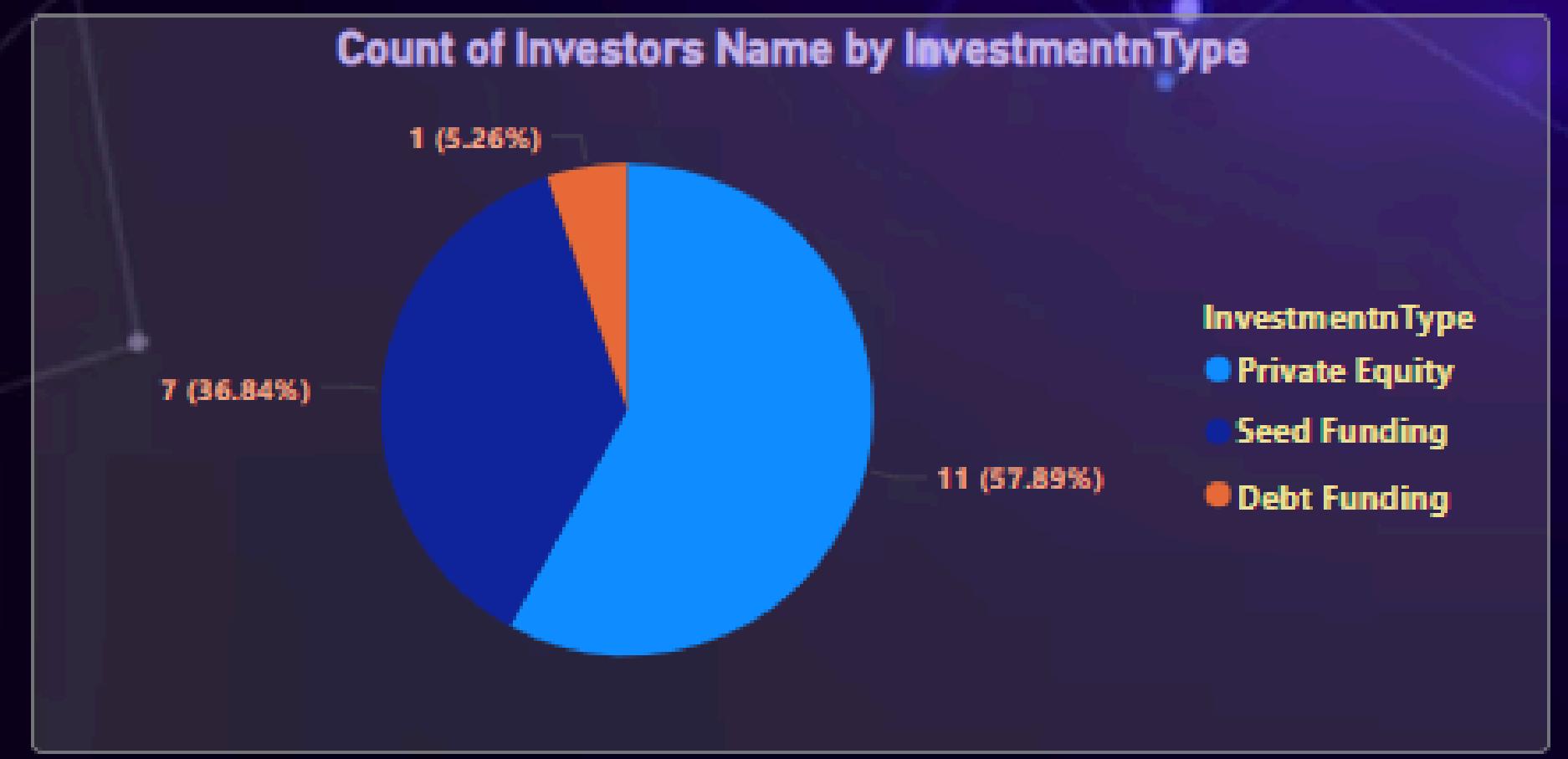
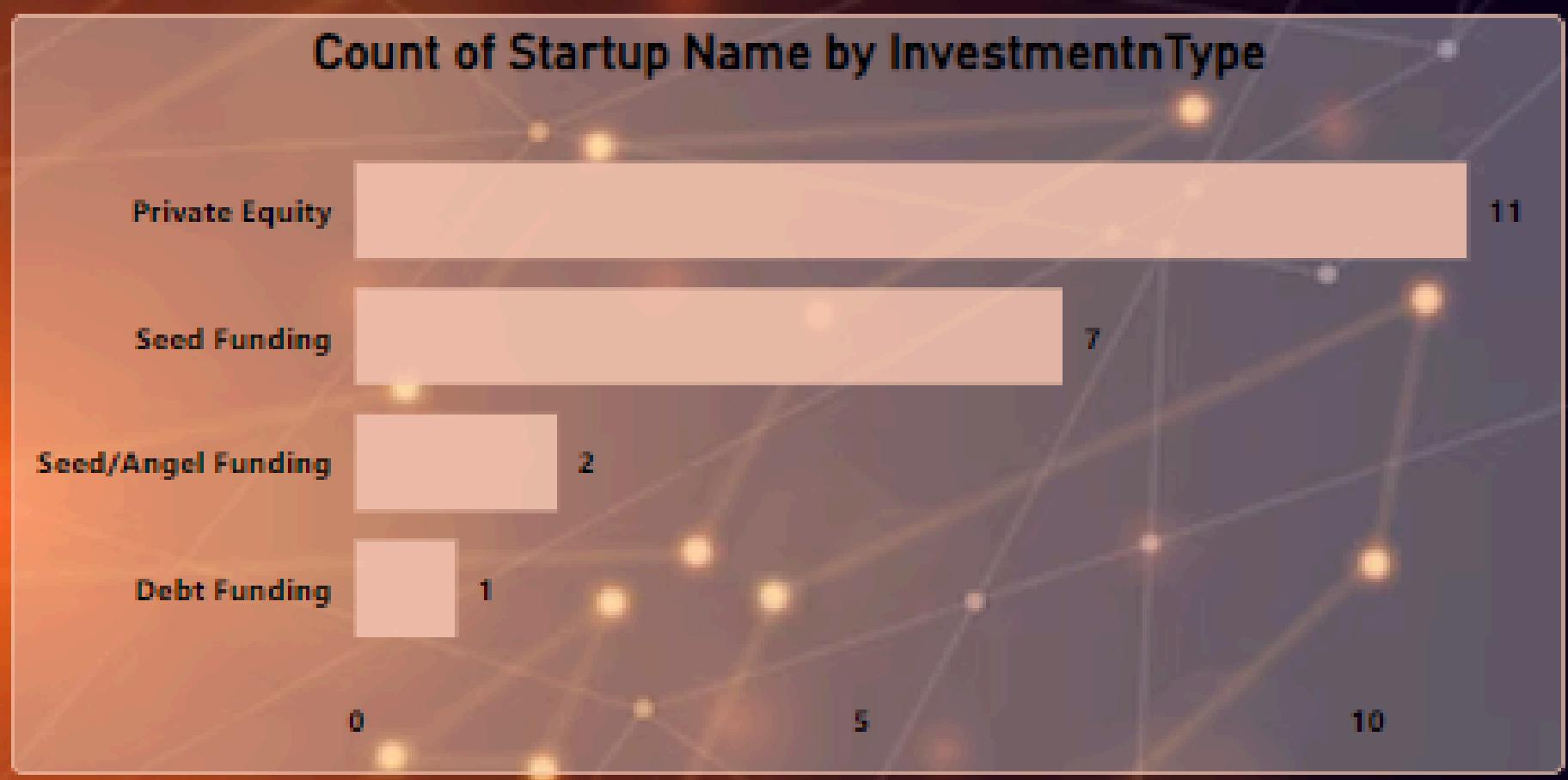
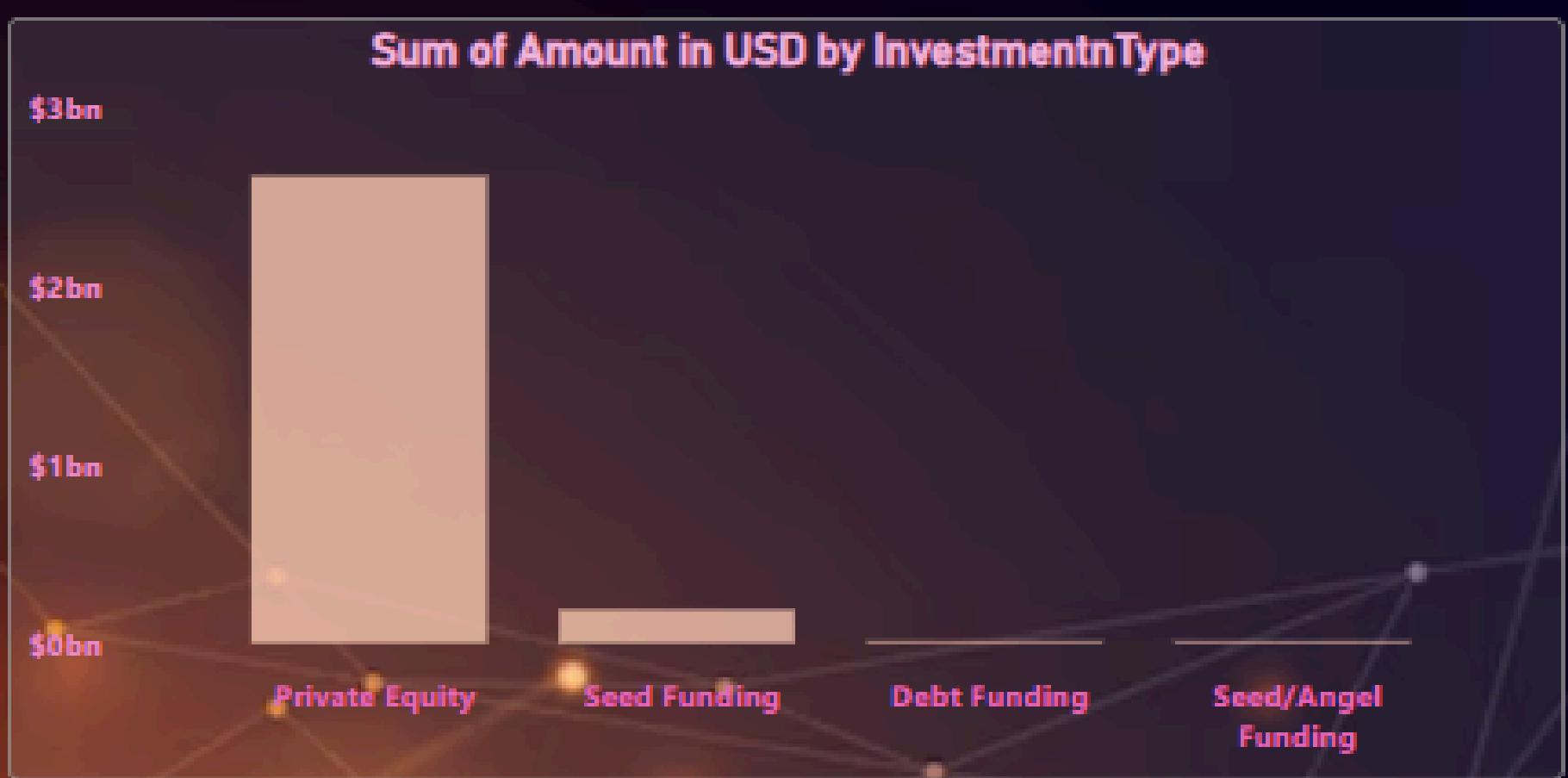
Count of Startup Name and Count of Investors Name by City Location



Indian Startup Economy Analysis



Indian Startup Economy Analysis



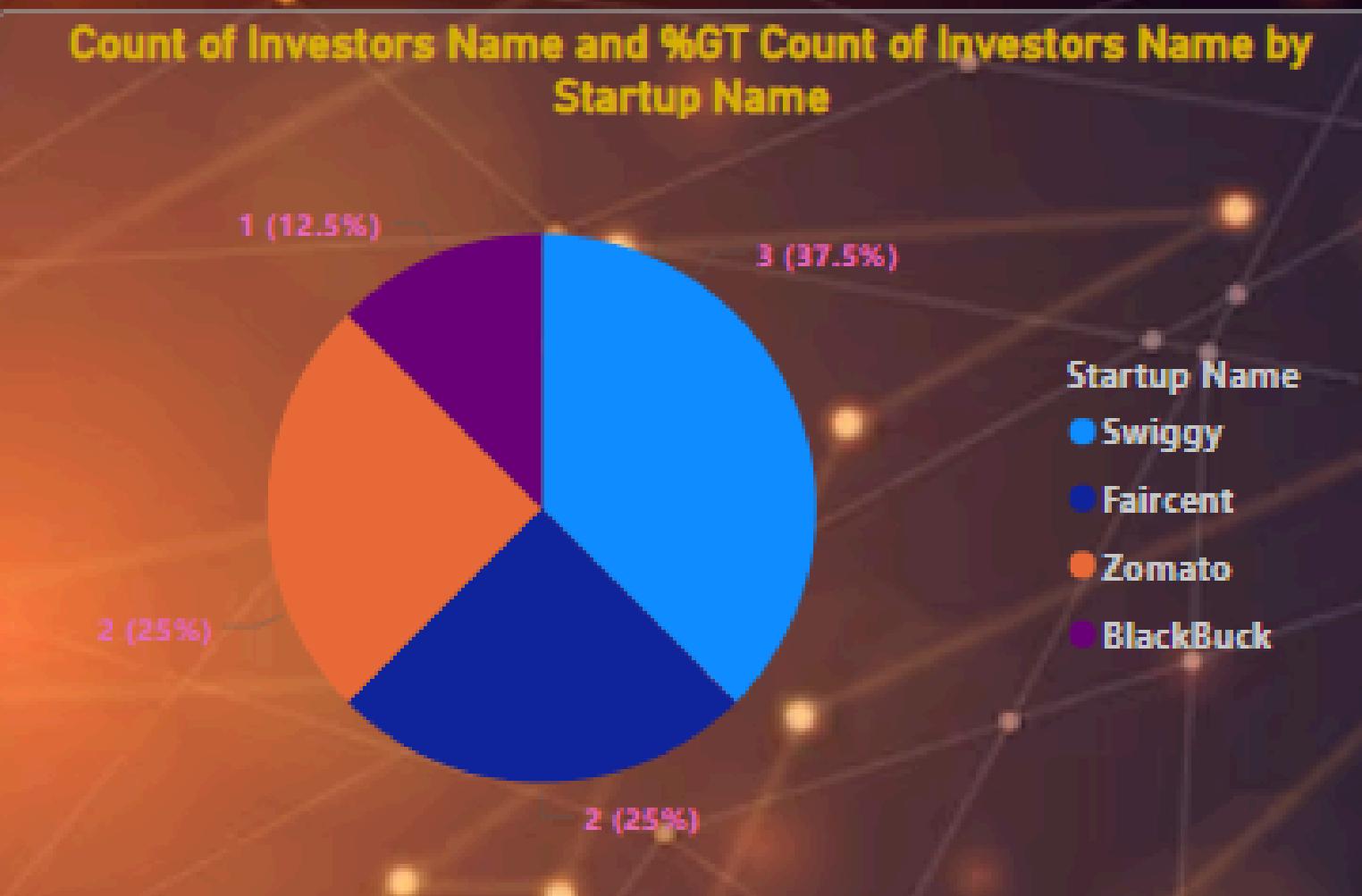
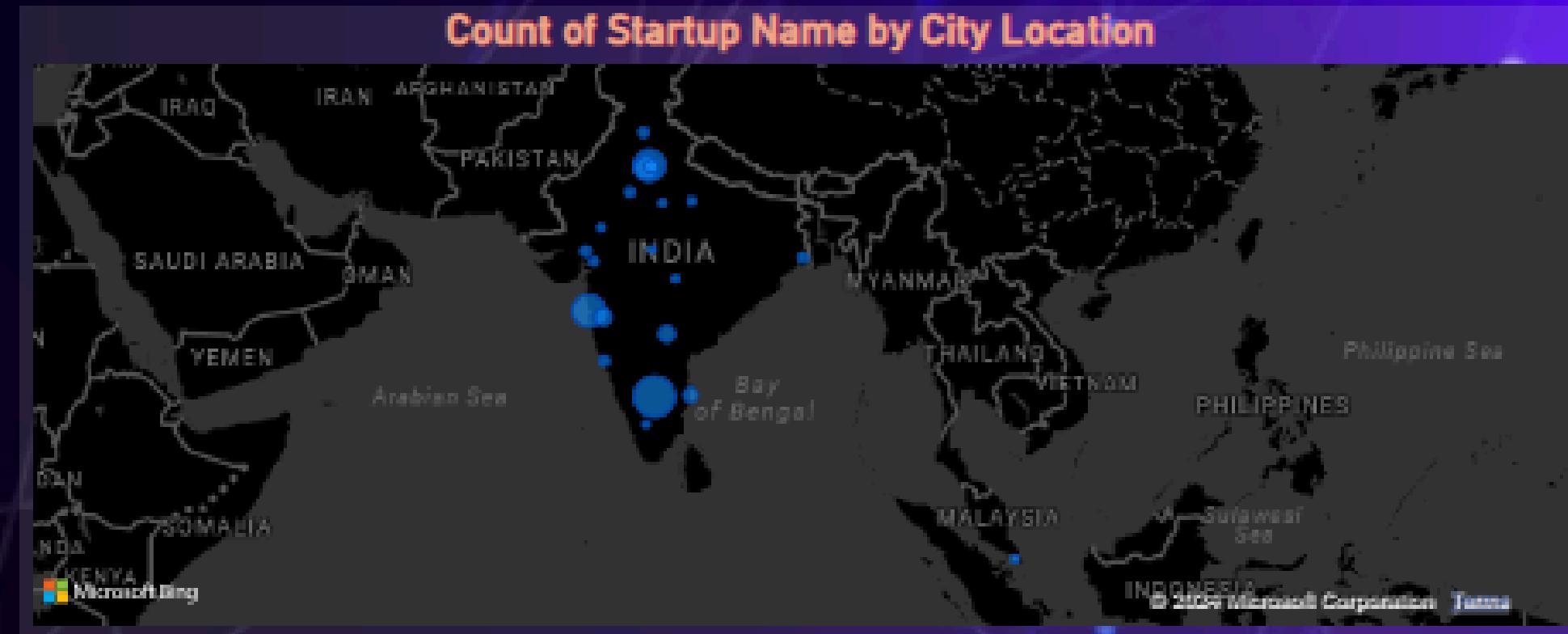
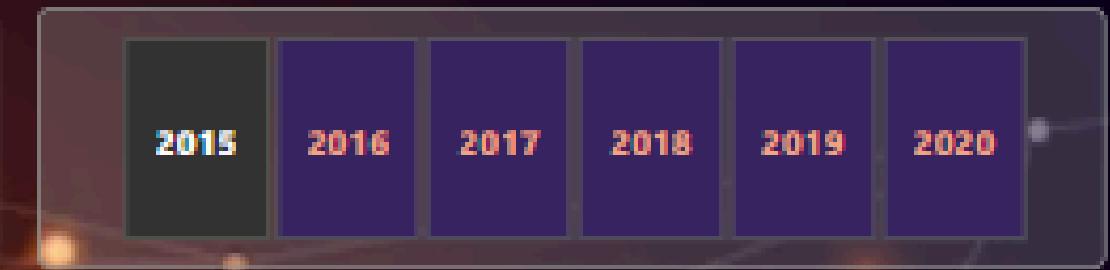
Indian Startup Economy Analysis

\$8.2bn
Sum of Amount in ...

38
Count of City Location

391
Count of Investment...

391
Count of Investors Name



Startup Name	Industry Vertical
BlackBuck	Online Freight Services Aggregator
Faircent	nan
Faircent	Online P2P lending marketplace
Swiggy	Online Food Delivery
Swiggy	Online Food Ordering
Zomato	Restaurant Ratings & Reviews platform
Zomato	Restaurant Reviews

Startup Name	Investment Type
BlackBuck	Private Equity
Faircent	Private Equity
Faircent	Seed Funding
Swiggy	Private Equity
Zomato	Private Equity

Real Life Based Applications based on dataset

1. Understanding Funding Trends by Industry

Analyze the Industry Vertical and SubVertical columns to find which sectors receive the most funding.

2. Identifying Startup Hubs in India

Use the City Location column to determine the most active startup hubs based on the number of funding events

3. Evaluating Investment Strategies for Startups

Analyze the Investment Type column to correlate funding stages (Seed, Series A, etc.) with the typical amounts received.

4. Identifying Key Investors and Their Preferences

Analyze the Investors Name and Industry Vertical columns to identify which investors are active in specific industries or funding stages.

5. Tracking Growth Trends Over Time

Use the Date column to analyze funding events over time. Identify periods of increased activity or stagnation, helping policymakers evaluate the impact of initiatives like Startup India and refine strategies for growth.

**THANK YOU
FOR YOUR
ATTENTION**

