# Shark Tank India Investment Analysis Report

## Introduction

This project analyzes the Shark Tank India dataset to understand patterns in startup funding, investor behavior, and industry attractiveness. The analysis was carried out in two stages:

1. **Exploratory Data Analysis (EDA)** in Python using **Matplotlib** and **Seaborn** for statistical exploration and trend identification.

2. **Interactive Visualization** in **Power BI** for business-oriented dashboards and storytelling.

## 2. Exploratory Data Analysis (EDA)

In the Python EDA phase, the following insights were generated:

- **Deal Conversion:** Count plots showed that only around half of the startups secured funding.

- **Industry Distribution:** Bar plots highlighted that Food, Fashion/Beauty, and Technology were the most common industries pitched.

- **Shark Participation:** Heatmaps and count plots revealed varying levels of participation among sharks, with some being more aggressive investors.

- **Equity vs Investment:** Scatter plots indicated no strict correlation—some startups secured high funding with relatively low equity stakes.

- **Episode Trends:** Line plots across episodes showed fluctuations in deal amounts, with certain episodes standing out for very high investments.

👉 EDA provided a **statistical foundation**, validating which areas deserved deeper visualization in Power BI.

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# 3. Power BI Dashboard Insights

The Power BI dashboard added a visual storytelling layer on top of the EDA. Key analyses include:

1. **Deal Conversion Rate**

   - Out of **117 companies**, ~55% secured deals, highlighting the competitive environment.

2. **Shark-Wise Investment**

   - Donut chart analysis showed that while all 7 sharks invested, their contribution patterns were different—some invested aggressively while others were selective.

3. **Industry-Wise Funding**

- Tree map revealed **Food** and **Fashion/Beauty** as top-funded industries, followed by Technology and Healthcare.

4. **Equity vs Investment**

- Scatter plot showed startups raising larger investments often gave lower equity percentages, suggesting higher valuations for strong businesses.

5. **Episode Trends**

- Line chart displayed fluctuating investments across episodes, with some peaking near **200M**, showing the presence of big-ticket deals.

# 4. Conclusion

By combining **Python EDA** and **Power BI dashboards**, we gained both **data-driven insights** and **business-focused visualizations**.

- EDA helped uncover patterns, validate distributions, and check correlations.

- Power BI provided an interactive way to explore shark behavior, industry preferences, and deal structures.

Together, these approaches show that Shark Tank India funding is selective, sharks follow unique investment strategies, and industries like Food and Fashion/Beauty dominate in funding. Collaborative deals also appear to be a strong trend, allowing startups to secure higher funding at lower equity dilution.