Project Report: Startup Investment Analysis (Shark Tank India)

Introduction

The objective of this project is to analyze investment trends from the Shark Tank India dataset. By examining data across multiple seasons, this analysis aims to uncover key patterns in funding distribution, identify dominant industry sectors, and understand success factors related to founder profiles. The goal is to derive actionable insights from the investment patterns of the Sharks, providing a clear view of the startup landscape as represented on the show.

Overview

This analysis of the Shark Tank India dataset reveals several distinct trends.

The Beauty/Fashion industry, followed closely by Food & Beverages, emerges as the most attractive domain for investment. Investor activity is not uniform, with specific Sharks showing strong preferences for certain sectors.

A temporal analysis indicates that total investment peaked during Season 2. Furthermore, an examination of founder demographics shows that founding teams comprised of males only have the highest success rate in securing deals. These findings suggest clear investor preferences for specific industries and founder profiles.

Tools Used

The project was executed entirely using the Microsoft Power BI. This single tool was used for the end-to-end analysis, encompassing all phases of the project.

Microsoft Power BI:

Power Query Editor: Utilized for data loading, cleaning, and transformation. This included handling null values, creating calculated columns from existing data, and shaping the data model for analysis.

DAX (Data Analysis Expressions): Employed for creating key performance indicators (KPIs) and analytical measures such as Total Investment, Deal Success Rate, and Average Deal Size.

Power BI Report View: Used for designing and building the interactive dashboard with a variety of visualizations to present the findings.

Steps Involved in Building the Project

Data Loading and Cleaning: The raw CSV dataset was loaded into Power BI. Using the Power Query Editor, initial data cleaning was performed, which included correcting data types and replacing null values in investment columns with zero to ensure calculation accuracy.

Data Transformation and Feature Engineering: New, more insightful columns were created to facilitate deeper analysis. A Total Investment column was created by summing the individual investment amounts from each Shark. A Founder Group column was engineered to classify teams as "Male Only," "Female Only," or "Mixed Team" based on the number of presenters.

DAX Measures Creation: Key analytical measures were written to quantify the main business metrics. This included Total Pitches, Total Deals, Total Investment (L), and Deal Success Rate %.

Dashboard Visualization: An interactive dashboard was designed with visuals such as KPI cards, slicers, a bar chart for top industries, a line chart for seasonal trends, and a donut chart for founder analysis.

Deep-Dive Analysis: To satisfy the requirement for "industry-wise investor trends", the data was unpivoted to enable investor-specific analysis. A matrix visual was created to map shark investments against different industry sectors, revealing specific investor preferences.

Insight Generation and Polishing: The final step involved refining the dashboard for clarity and impact. Insightful titles were written for each chart.

Conclusion

This analysis of the Shark Tank India dataset provides valuable insights into the dynamics of early-stage startup funding.

The analysis also reveals distinct investor preferences within these top sectors. For example, the data shows which specific Sharks are the primary investors in the Beauty domain, while others concentrate their capital in Food & Beverage startups. This highlights that a startup's appeal can be highly dependent on the specific investor panel. The finding that all-male founding teams are the most successful in securing deals remains a significant insight into investor patterns on the show.

This dashboard serves as a powerful tool for aspiring entrepreneurs to understand not only which industries are attracting capital, but also which specific investors are most active in their domain attracting the most capital and to recognize the founder profiles that have been most successful in this environment.