Spark Funds- Asset Management Company

Investment Case Study- Analysis

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Objectives & Goals of Investment Analysis

Business Objectives:

The objective is to identify the best sectors, countries, and a suitable investment type for making investments. The overall strategy is to invest where others are investing, implying that the best sectors and countries are the ones where most investments are happening.

Business Strategy- : To analyze the trends of investments and identify the best investment sectors & countries.

Goals of Investment Analysis:

- **Management Decisions-** Assist Spark Funds management in taking decision based on exploratory analysis of data.

- **Investment type analysis-** Find suitable Funding Round type

- **Country analysis-** Identify suitable countries to invest in.

- **Sector analysis-** Find appropriate Sectors as potential Investment areas.

- **Company analysis-** Locate potential companies worthy of Investment from Spark Funds.

Premise & Assumptions

Exploratory Data Analysis Guidelines:

• Funding range under consideration is 5 to 15 million USD. Investment in only English speaking countries.

• Top 3 sectors to be used to identify companies worthy of funding.

• Companies from top 3 sectors to be identified as Investment prospects.

Data Management Framework & Technology:

• CRISP Data Management Framework

• R modelling framework & Tableau- for Visualizations

Assumptions:

• **crunchbase.com-** Source of data is considered sacrosanct. At no point during analysis data is to be tampered with.

• **Baseline Code–** The code used for analysis is to be baselined and it can be used in future if follow-up questions are there from management.

• **Visualization-** More charts/visualization options can be made available for exploration subject to level of details asked by management.

• **Data** - All blank values are considered as NA while importing. NA values are subsequently ignored on case to case basis.

Investment Analysis Approach

Import files and Understand data attributes and it's value, Dimensional and fact data

- Data understanding

NA, blanks or misrepresentation of data, data extraction and manipulations

- Data Cleaning / Preparation

Slice, Dice, Roll up, Roll down
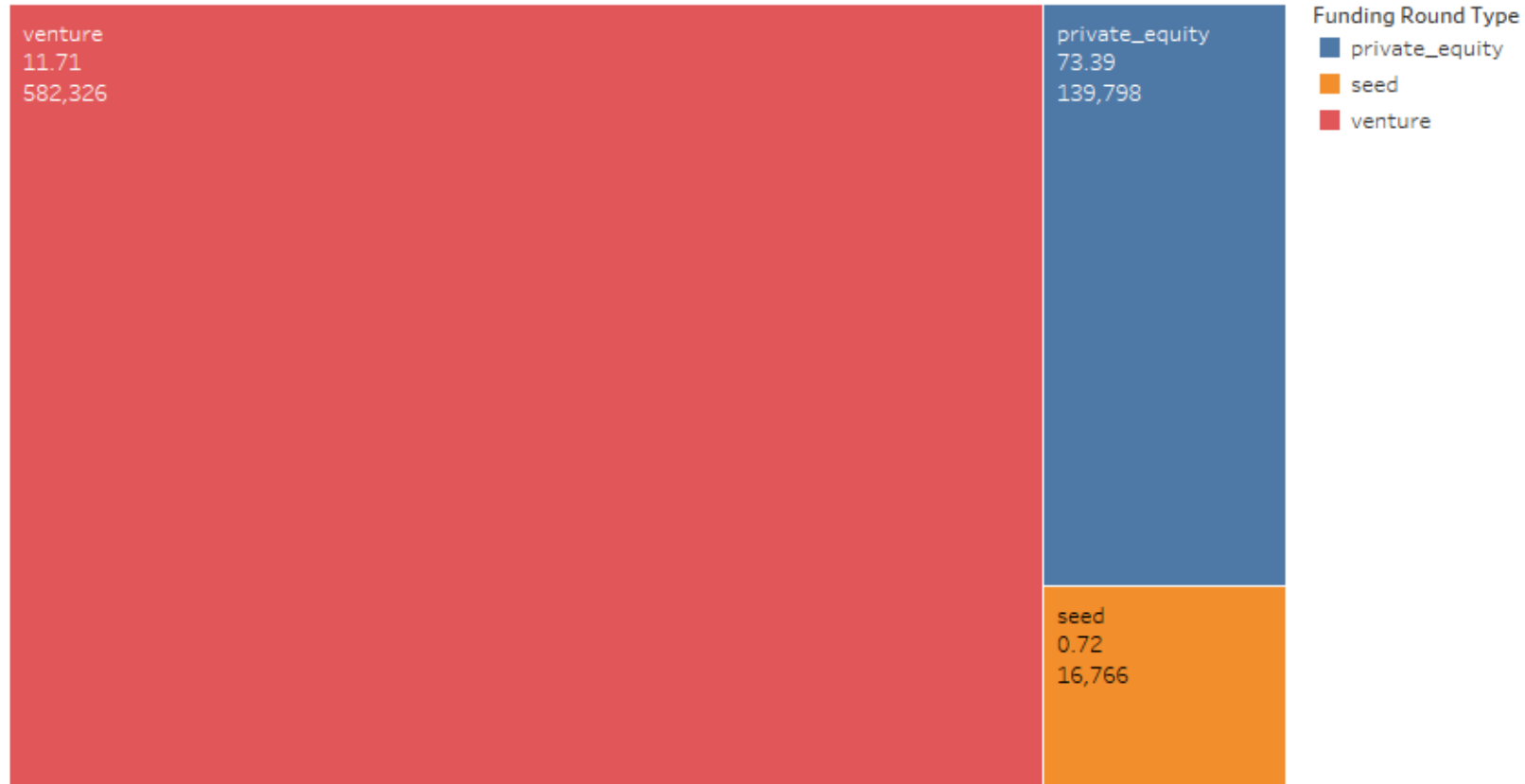
- BI and OLAP Operations

Generate Reports

- Data Visualization and presentation

Investment Type Analysis

A plot showing the fraction of total investments (globally) in venture, seed, and private equity, and the average amount of investment in each funding type. This chart should make it clear that a certain funding type (FT) is best suited for Spark Funds.
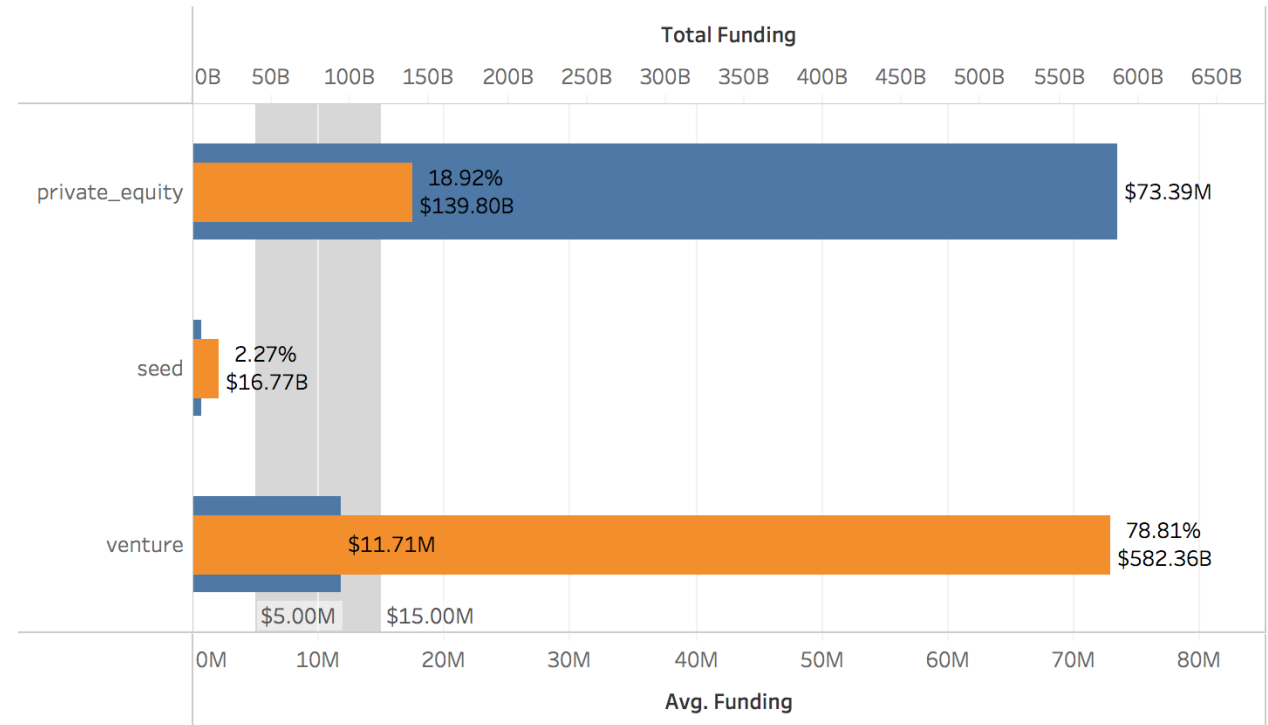[In following chart amount figure 1. average 2. Total Raised Amount in USD Million]

Funding Round Type, average of Raised Amount Usd Million and sum of Raised Amount Usd Million. Color shows details about Funding Round Type. Size shows sum of raised_amount_usd. The marks are labeled by Funding Round Type, average of Raised Amount Usd Million and sum of Raised Amount Usd Million. The view is filtered on Funding Round Type, which keeps private_equity, seed and venture.

Investment Type Analysis

- Slice the data for investment types: seed, venture, private equity

- Roll up funding amount on funding type and calculate average funding amount for each funding type

- Only one investment falls between the range of 5-15M is venture.

- From the plot is is clearly visible that best suited funding type is **venture**.

Best suited funding type: Venture

Funding Type: Total Funding Vs AverageFunding

Total Funding

private_equity — 18.92% $139.80B — $73.39M

seed — 2.27% $16.77B

venture — 78.81% $582.36B — $11.71M
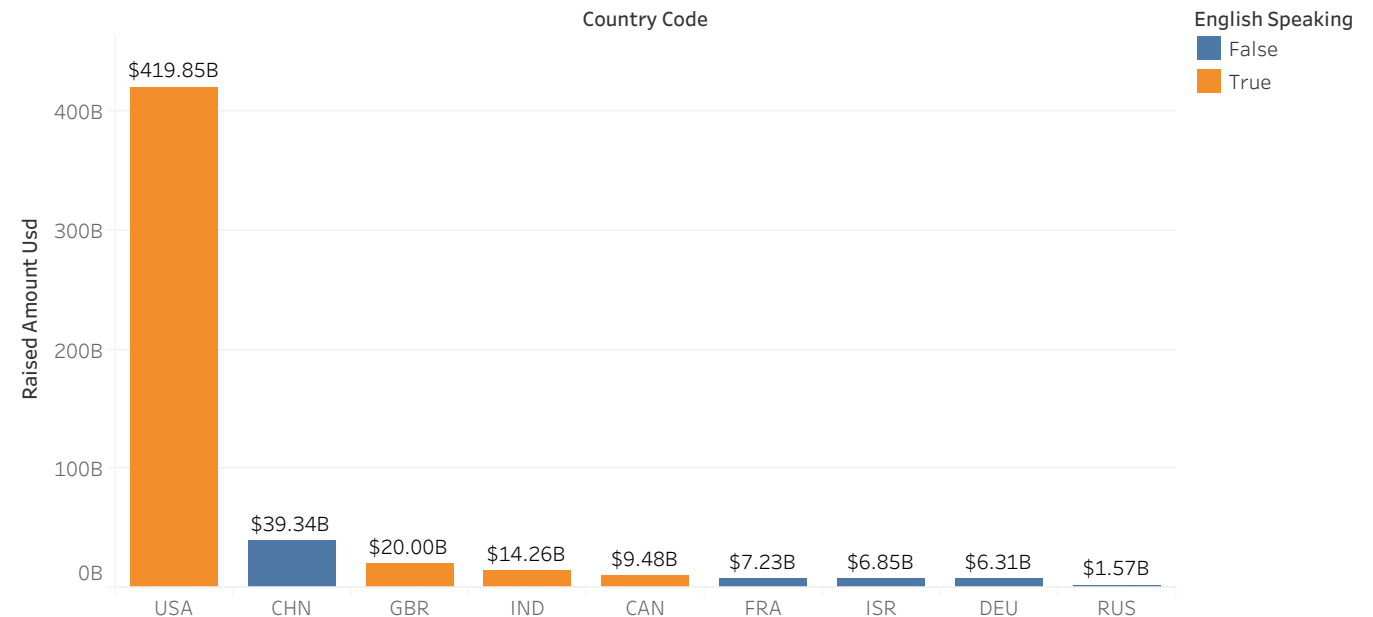
$5.00M $15.00M

Avg. Funding

Country Analysis

- Filter the master file where funding type is **venture**

- Roll up funding amount on funding type and calculate sum of funding amount for each country code

- The plot is further divided into English and non English speaking countries. Spark funds are interested in English speaking countries.
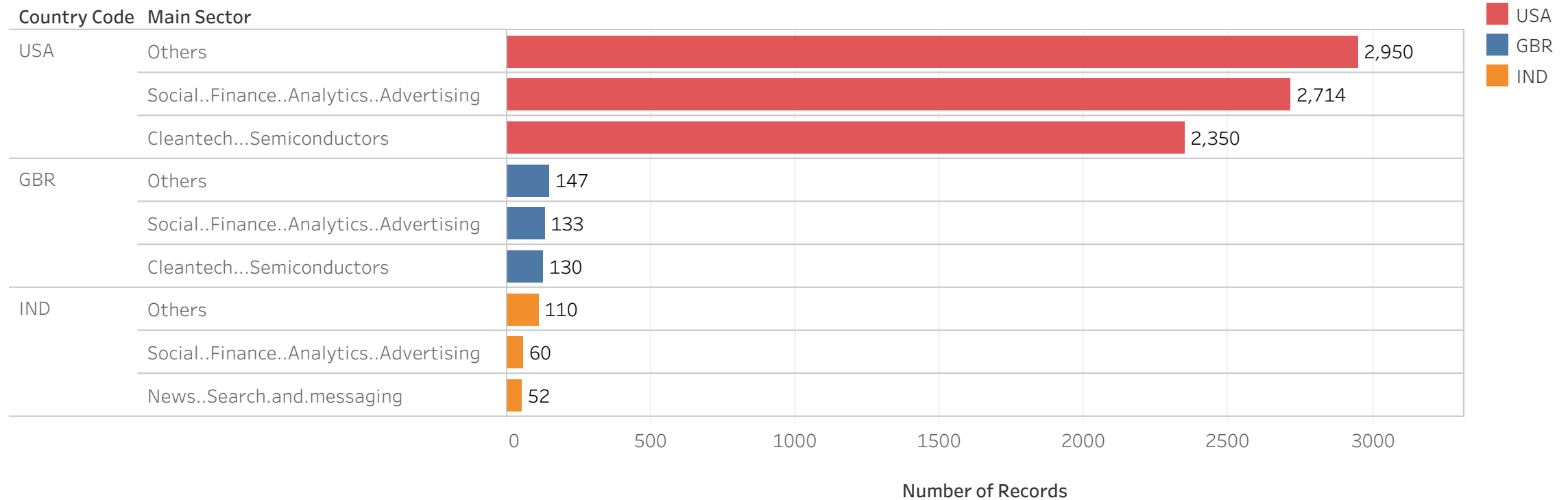
Result:
- USA, GBR(UK), IND (India) are top 3 countries for investment.

Top 9 countries

Country Code

English Speaking
- False
- True

Sum of Raised Amount Usd for each Country Code. Color shows details about English Speaking. The marks are labeled by sum of Raised Amount Usd. The data is filtered on Funding Round Type, which keeps venture. The view is filtered on Exclusions (Country Code,English Speaking) and Country Code. The Exclusions (Country Code,English Speaking) filter keeps 137 members. The Country Code filter has multiple members selected.

Data Analysis – USA- Top 3 Companies in two best sectors

Country	Company	Rank	Status	Primary Sector	Sector	No of fundings	Amount of funding
USA	Virtustream	1	Acquired	Enterprise Software	Others	6	$64.3M
USA	Capella Photonics	2	Operating	Web Hosting	Others	6	$54.96 M
USA	AirTight Networks	3	Operating	Security	Others	5	$54.2 M
USA	SST Inc. (Formerly ShotSpotter)	1	Operating	Analytics	Social..Finance..Analytics..Advertising	7	$67.9 M
USA	Demandbase	2	Operating	Analytics	Social..Finance..Analytics..Advertising	5	$63 M
USA	Intacct	3	Operating	Accounting	Social..Finance..Analytics..Advertising	5	$61.8 M

Summary:

- Maximum funding in Others sector is for Virtustream but it is already acquired.

- Maximum funding in Social..Finance..Analytics..Advertising sector is for SST Inc

Data Analysis – UK- Top 3 Companies in two best sectors

Country	Company	Rank	Status	Primary Sector	Sector	No of fundings	Amount of funding
UK	Electric Cloud	1	Operating	Software	Others	4	$37 M
UK	SenSage	2	Acquired	Security	Others	4	$36.25 M
UK	Enigmatec	3	Closed	Enterprise Software	Others	4	$36.25 M
UK	EUSA Pharma	1	Acquired	Bio Technology	Cleantech…Semiconductors	3	$35.6 M
UK	Horizon Discovery	2	IPO	Bio Technology	Cleantech…Semiconductors	3	$31.35 M
UK	F-Star Biotechnology Limited	3	Operating	Bio Technology	Cleantech…Semiconductors	3	$29.3 M

Summary:

- Maximum funding in Others sector is for Electric Cloud.

- Maximum funding in Cleantech…Semiconductors sector is for EUSA Pharma

Data Analysis – India- Top 3 Companies in two best sectors

Country	Company	Rank	Status	Primary Sector	Sector	No of fundings	Amount of funding
IND	FirstCry.com	1	Operating	E-Commerce	Others	3	$39
IND	Myntra	2	Operating	E-Commerce	Others	4	$38
IND	CommonFloor	3	Operating	Real Estate	Others	3	$32.90
IND	Manthan Systems	1	Operating	Analytics	Social..Finance..Analytics..Advertising	4	$50.70
IND	Komli Media	2	Operating	Advertising	Social..Finance..Analytics..Advertising	3	$28
IND	ShopClues.com	3	Operating	Consumer Internet	Social..Finance..Analytics..Advertising	2	$25

Summary:

- Maximum funding in Others sector is for Firstcry.com.

- Maximum funding in Social..Finance..Analytics..Advertising sector is for Manthan Systems.

Recommendations

Funding Type	Venture		
Country	**Best Sector**	**2ⁿᵈ Best Sector**	**3ʳᵈ Best Sector**
The United States of America	Others	Social..Finance..Analytics..Advertising	Cleantech...Semiconductors
United Kingdom	Others	Social..Finance..Analytics..Advertising	Cleantech...Semiconductors
India	Others	Social..Finance..Analytics..Advertising	News..Search.and.messaging

Company (Highest Funding Amount- Across Top 2 Sectors)	Country	Rank
SST Inc.	The United States of America	1
Demandbase	The United States of America	2
Intacct	The United States of America	3
Electric Cloud	United Kingdom	1
Horizon Discovery	United Kingdom	2
F-Star Biotechnology Limited	United Kingdom	3
Manthan Systems	India	1
FirstCry.com	India	2
Myntra	India	3