

INVESTMENT CASE STUDY

SUBMISSION

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Spark Funds – Investment Strategy

Spark Funds, an asset management company wants to understand the global trends in investments to effectively make the investment decisions

Constraints

- 1) Invest between 5 to 15 million USD per round of investment
- 2) Invest only in English-speaking countries

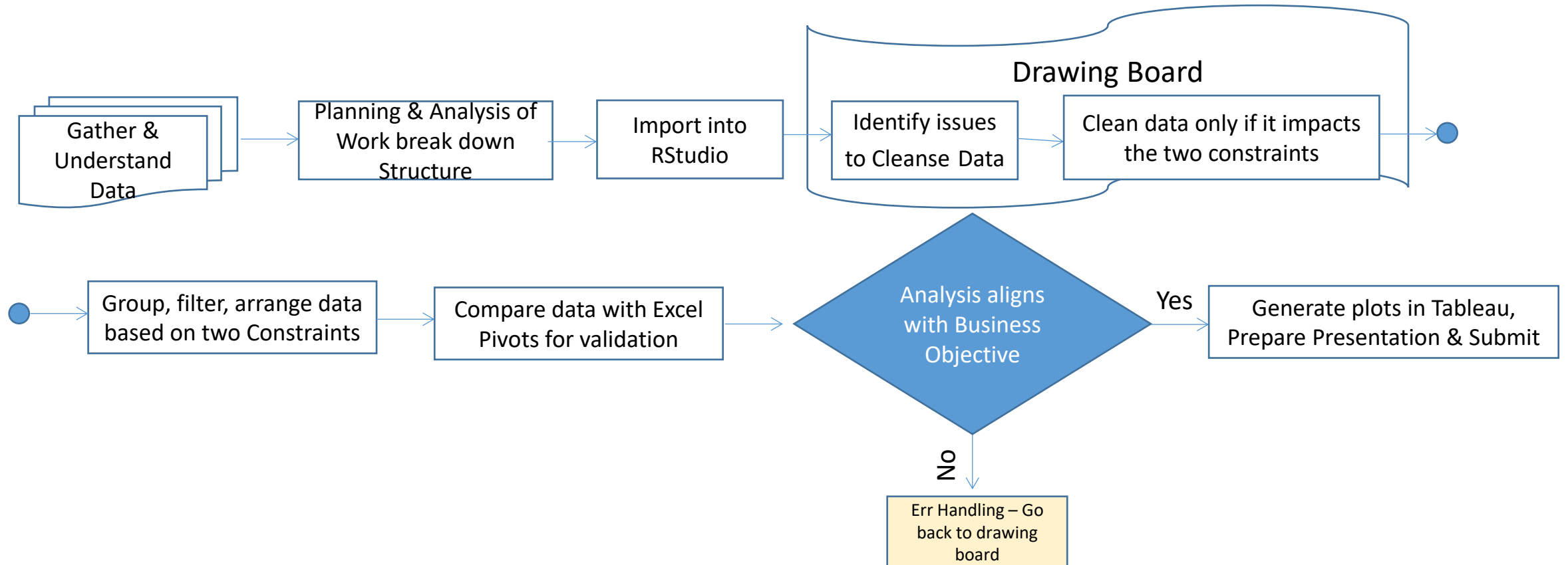
Strategy

Invest where most other investors are investing

Business Objective

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.

Problem solving methodology



Analysis

Pre-planning meeting was held to discuss the whole exercise. Technical knowhow of R, Tableau & Excel were evaluated to successfully execute the case study.

Project was split into two phases P&A (Planning & Analysis) and Execution were

- Planning & Analysis was conducted to review data inputs Vs constraints leading into identification of Data anomalies
- Execution - Process data in Rstudio & Tableau

Tools used for Workflow

- a) RStudio for data cleansing & modelling
- b) Tableau for plots
- c) Excel for re-checking RStudio output

Analysis

Phase 1 : Planning & Analysis

Planning & Analysis was conducted to review data inputs Vs constraints leading into identification of Data anomalies

- a) Identification of Unique Keys (companies\$permalink, companies\$country_code, rounds2\$company_permalink, mapping\$category_list, companies\$category_list once use filters data is cleansed)
- b) Resolving Data Quality Issues (Handling NA Values as required, converting to lowercase of Permalink, replacing 0 with na in mapping\$category_list, changing blanks to No Value in Mapping\$catagort_list)
- c) Note :- Country Code inaccuracies were purposefully Ignored as these wouldn't have impacted the Analysis.

Analysis

Phase 2 : Execution

Process data in Rstudio & Tableau

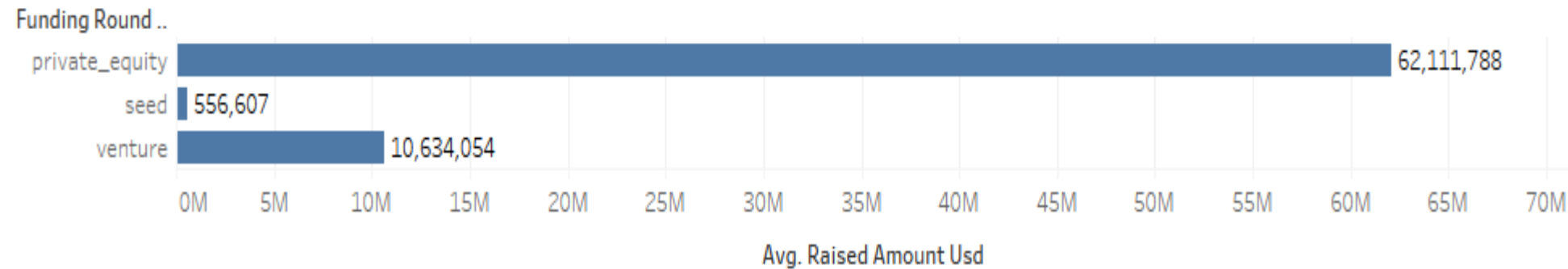
- a) Importing data – All input files as Data Frames in R
- b) Cleanse data
- c) Answer questions of Case Study, In parallel use Excel for validation & correction
- d) Identify Top 3 English speaking countries and Top 3 Main Sectors
- e) Plot Graphs using Tableau
- f) Prepare Presentation

Model Objectives – To clear all Checkpoints using R

- 1) Checkpoint 1 : Data Cleaning
- 2) Checkpoint 2 : Funding Type Analysis
- 3) Checkpoint 3 : Country Analysis
- 4) Checkpoint 4 : Sector 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

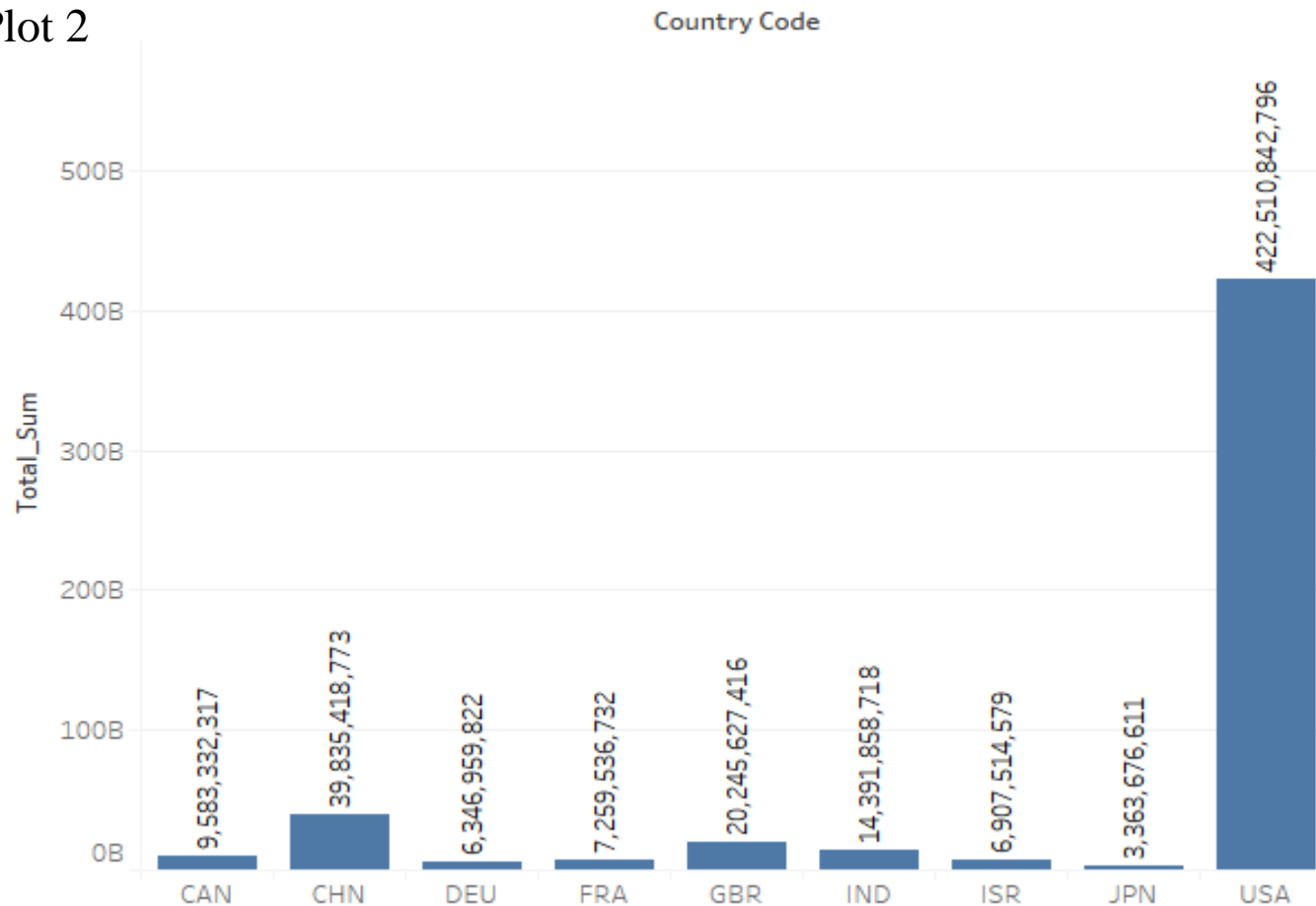
Plot 1



- Venture is the most suited Funding Type within **5 to 15 million USD** with Average Funding of USD 10.634 Million

A plot showing the top 9 countries against the total amount of investments of funding type FT. This should make the top 3 countries (Country 1, Country 2, and Country 3) very clear.

Plot 2

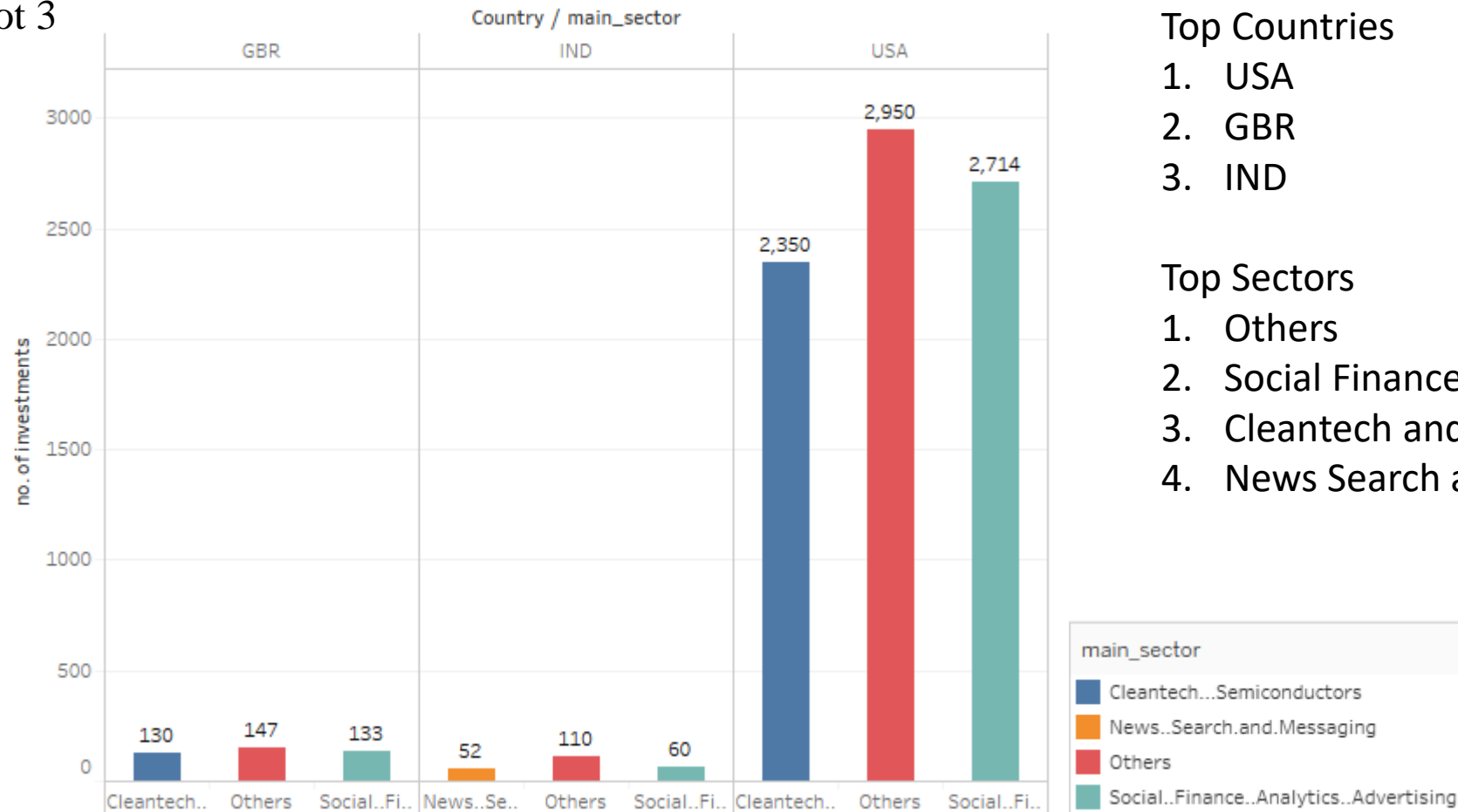


English Speaking Countries - USA, GBR & IND have higher amounts of investment.

CHN is not an English speaking country

A plot showing the number of investments in the **top 3 sectors** of the **top 3 countries** on one chart (for the chosen investment type FT).

Plot 3



Top Countries

1. USA
2. GBR
3. IND

Top Sectors

1. Others
2. Social Finance Analytics & Advertising
3. Cleantech and SemiConductors
4. News Search and Messaging

Conclusions

Suitable Investment Type

VENTURE

Both in English Speaking Countries and across all Countries, suitable for 5M to 15M USD per round of Investment

Best Countries

USA, GBR and IND

English Speaking Countries where most of the Investors are Investing

Best Sectors

main_sector	Country	Total
Others	USA	2950
	GBR	147
	IND	110
Others Total		3207
Social..Finance..Analytics..Advertising	USA	2714
	GBR	133
	IND	60
Social..Finance..Analytics..Advertising Total		2907
Cleantech...Semiconductors	USA	2350
	GBR	130
Cleantech...Semiconductors Total		2480
News..Search.and.Messaging	IND	52
News..Search.and.Messaging Total		52

Top Sectors

1. OTHERS across all 3 Countries
2. Social Finance Analytics & Advertising across all 3 Countries
3. Cleantech Semiconductors in USA & GBR
4. News Search and Messaging in IND