



INVESTMENT CASE STUDY

SUBMISSION

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Spark Funds – Investment Strategy

Spark funds, an asset management company, is looking for strategic investment options in few companies based on global trends. A solution needs to be designed with below investment constraints and business objectives in mind.

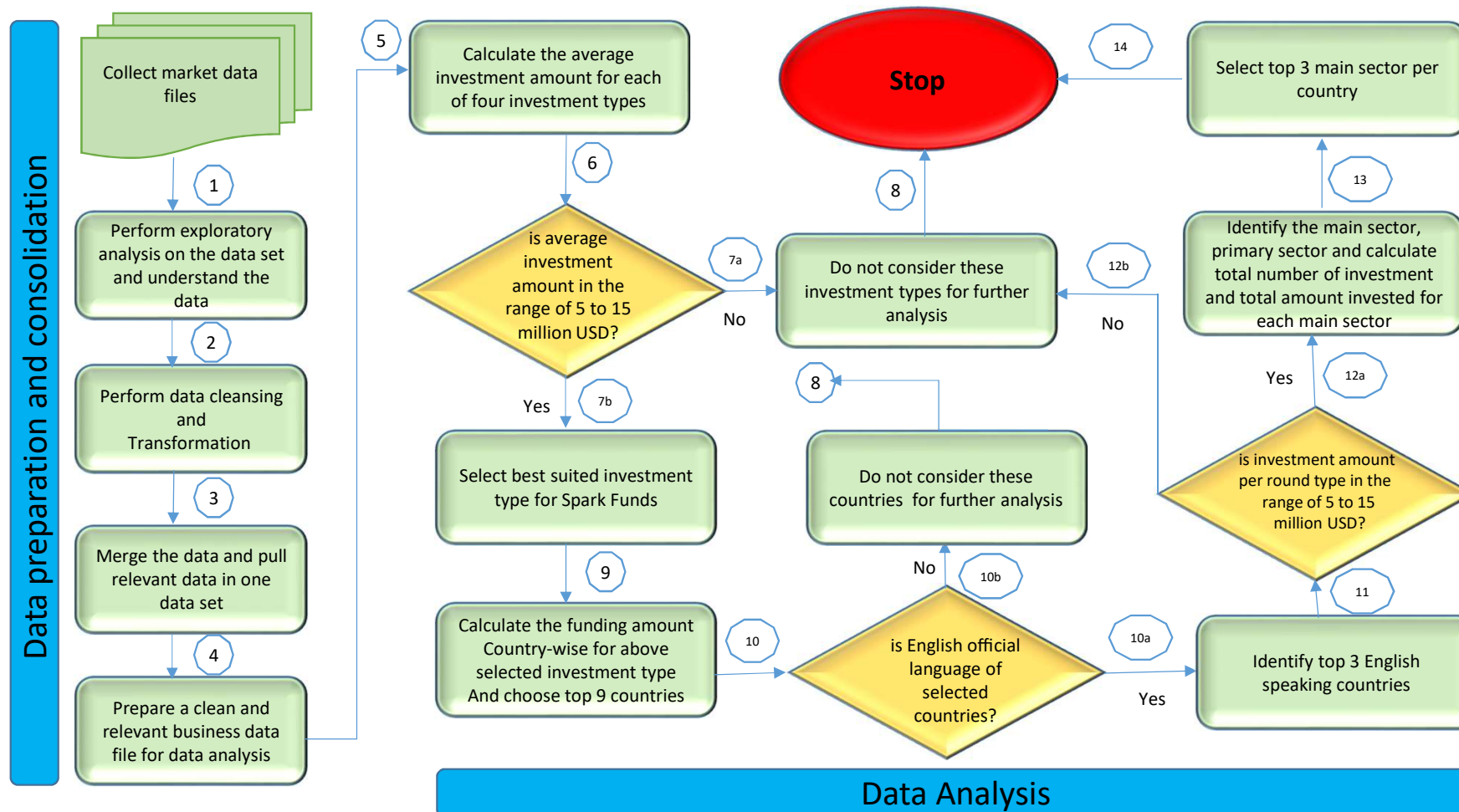
Investment Constraints

1. Investment will be between 5 to 15 million USD per round of investment.
2. Investment will be only in English speaking countries for ease of communication.

Business Objectives:

1. Identifying best sectors, countries and suitable investment type for making investment.
2. Deep analysis on Investment type, sector, country and official language of country needs to be done.
3. Overall strategy is to invest where others are investing, implying that the best sectors and countries are the ones where most investments are happening.

Decision Flow Chart



Problem Analysis

The analysis is divided into three parts:

- On given constraints, which **funding type** is the most suitable?
- In the chosen funding type, which **countries** have witnessed the most funding?
- In the chosen funding type and top countries, which **sectors** have performed the best?

Following workflow will be used to solve the subjected problem with the help of R and Tableau:



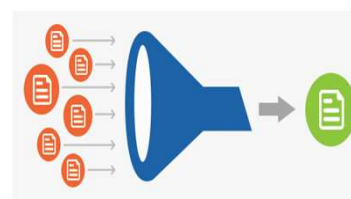
Data gathering



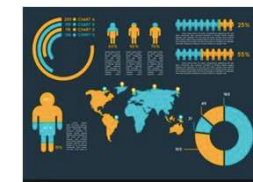
Data cleansing and transformation



Data collation



Filtering data based on sectors , countries and investment type



Data visualization

Data Analysis

Data Understanding

- We have 3 different Dataset – Companies,Rounds2 and Mapping.
- We have identified 66368 unique Companies across 137 countries.
- We have identified 8 unique main sectors

Automotive & Sports	Cleantech / Semiconductors	Entertainment	Health
Manufacturing	News, Search and Messaging	Others	Social, Finance, Analytics, Advertising

- Following are the major categories of Investment type of provided data set : **Venture, Seed , Angel, Private equity**.
- Identifying common keys between the datasets to prepare master data set for our analysis.

Data cleansing and transformation

- For calculating the average amount , we had excluded the rows which contains NA values or blank in amount column. This data was not removed from the master data frame.
- String with lower case data or upper case data or combination of lower and upper case will be considered as one data. Eg: company, COMPANY, ComPanY etc.
- Conversion of Mapping data set from wide data format into long data format.
- Merging of the following three data sets : Companies and Rounds2 and Mapping data set into Master data set.

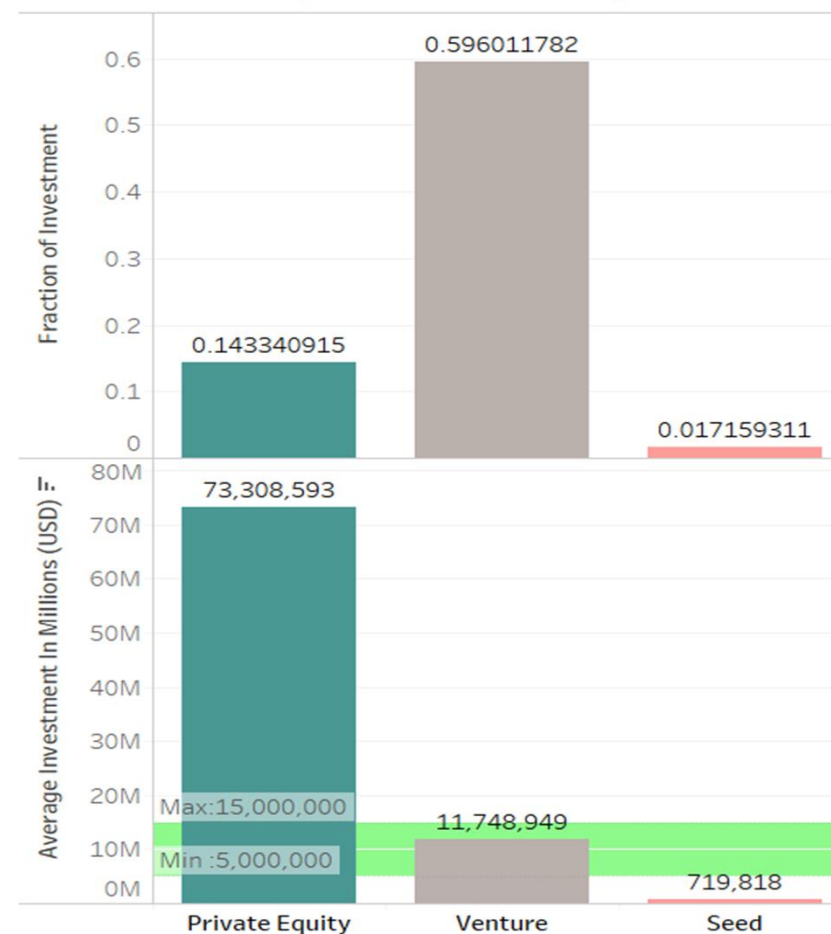
Result Analysis

1

Funding Type Analysis

- We are considering Funding Type which are in the average of 5M – 15M USD.
- We have identified **Venture** as the most suitable type for investment between 5M – 15M USD.

Funding Type Analysis
(Year:1960-2018)

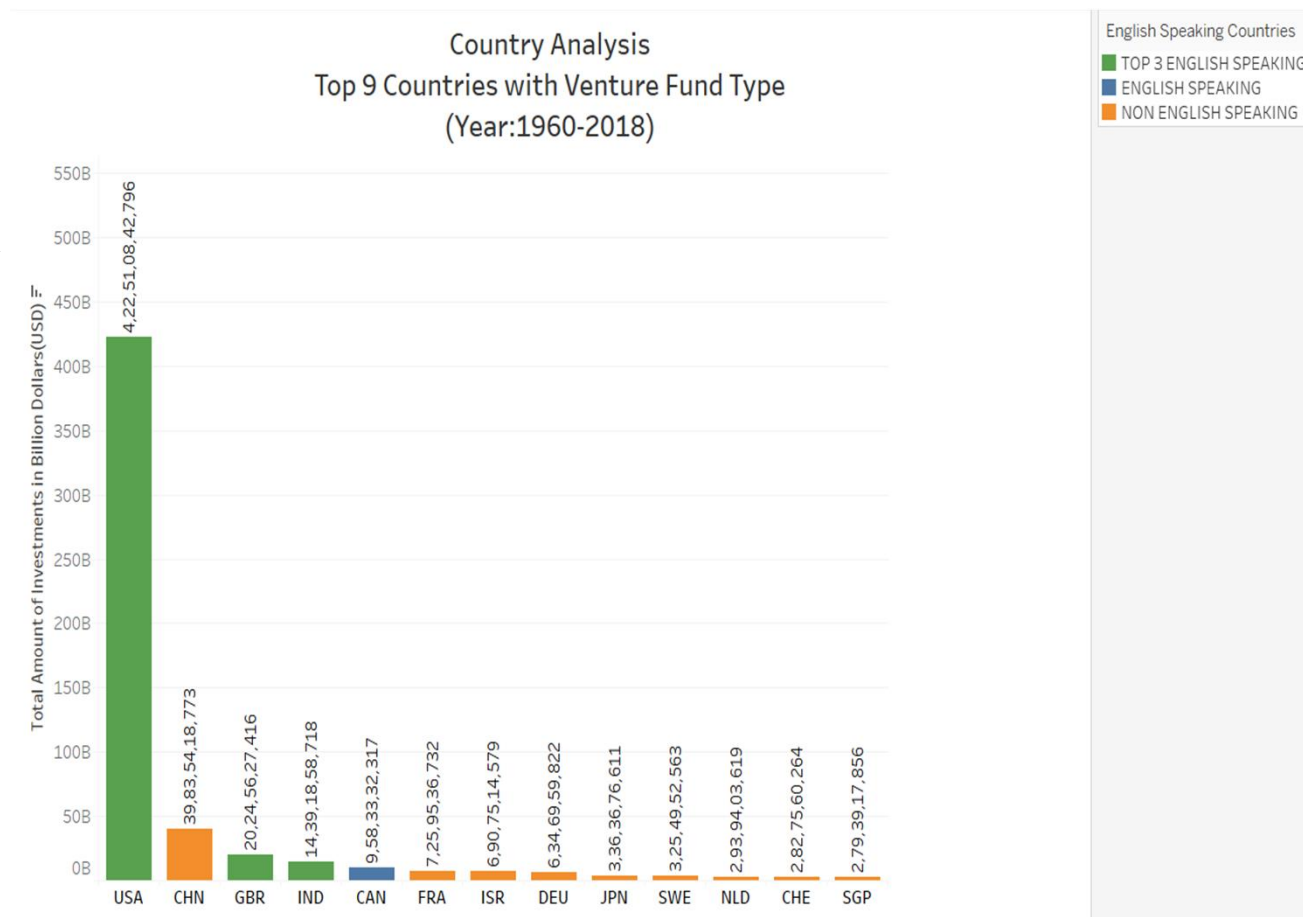


Result Analysis

2

Country Analysis

- We are identifying top 9 countries which have received the highest total funding for **Venture Fund Type**.
- We are considering only English Speaking Countries. Hence **United States** (USA) has the highest total investments followed by **United Kingdom** (GBR) and **India** (IND).



Result Analysis

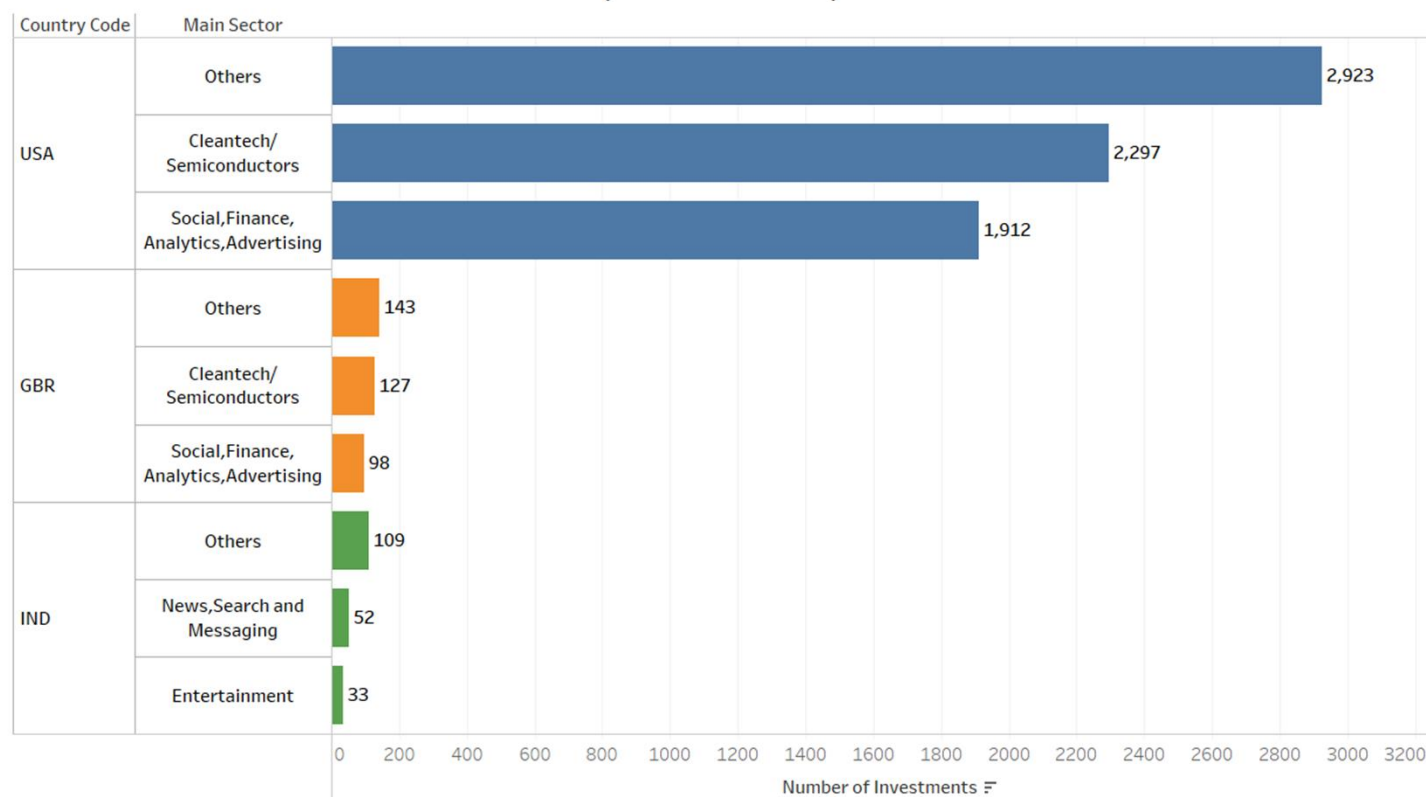
3

Sector Analysis

Top 3 main sectors in each Country

- **United States (USA)**
 - Others
 - Cleantech/Semiconductors
 - Social,Finance,Analytics,Advertising
- **United Kingdom (GBR)**
 - Others
 - Cleantech/Semiconductors
 - Social,Finance,Analytics,Advertising
- **India (IND)**
 - Others
 - News,Search and Messaging
 - Entertainment

Sector Analysis
(Year:1960-2018)



Conclusions

Based on our analysis following are the details of top countries and top 3 sectors of each country.

We recommend Spark funds to invest in **Venture Funding Type** in following countries and sectors in the same order.

	Country	Main Sectors
1	United States (USA)	Others
		Cleantech/Semiconductors
		Social,Finance,Analytics,Advertising
2	United Kingdom (GBR)	Others
		Cleantech/Semiconductors
		Social,Finance,Analytics,Advertising
3	India (IND)	Others
		News,Search and Messaging
		Entertainment



Thank You!!!!!!!