



# INVESTMENT CASE STUDY SUBMISSION

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# **SYNOPSIS OF THE PROJECT**

# ☐ Project Overview

• Spark Funds is an asset management company which wants to make investments in few companies. The CEO Spark Funds wants to understand the global trends in investments so that he/she can take the investment decisions effectively.

# ■ Business and Data Understanding

- The two constraints for Spark Funds are
  - i. It wants to invest in the range of 5 to 15 Million USD per round of investment and
  - ii. It wants to invest only in English-speaking countries for the ease of communication

# ☐ Business Objective and Strategy

• To identify the best sectors, countries and a suitable investment type for making investments with the strategy to invest where most other investors are investing.

# ☐ Goals of Data Analysis

- Investment type analysis (to choose the type that is based suited for the business strategy)
- Country analysis (to identify countries which have been heavily invested in the past)
- Sector Analysis (to understand the distribution of investment across main sector)

# ☐ Base files used

<ul> <li>Companies.csv</li> </ul>	Mapping.csv
Rounds2.csv	





# SPARK FUNDS - PROBLEM SOLVING FLOWCHART

## **Importing Data**

Import the csv files and resolve the encoding issues

## **Merging Data frame**

Create a merged data frame by merging rounds2 and companies data frame

#### Clean the data

- Identify missing data
- Imputing missing data and zero values.

# **Perform Sector Analysis (1/2)**

- Extract primary sector from category list column in top9
- Map the primary sector to the main sector using the mapping csv

### **Perform Country Analysis**

- Based on the investment type chosen, create a data frame (top9) of countries with highest funding of the investment type
- Identify top 3 English speaking countries from top9

## Perform investment type analysis

- Compute average investments in venture, angel, seed and private equity.
- Select the best funding type based on Spark Funds investment range.

## Perform Sector Analysis (2/2)

- Create three data frames USA\_df, India\_df,and GBR\_df based on the funding type chosen and investment range for top three English speaking countries
- Create two additional columns for the number of investments and the amount

**Create Plots in Tableau** 

## **Prepare a PPT**

 Prepare a PPT based on the Analysis performed, explaining the process followed and justifying the conclusions drawn





# INVESTMENT TYPE ANALYSIS

Spark Funds wants to choose one of the following investment types for each potential investment they will make

Venture

Angel

Seed

Private Equity

- Compute the average funding amount for each of the above investment type.
- > Based on the analysis, the best investment type for Spark Funds would be Private equity
- Reasons for selecting Private Equity
  - Considering Spark Funds investment range is 5 to 15 Million USD per round, we'll have to find average value of investment for each of the above investment type where the investment is in the range of 5 to 15 Million USD. As Spark Funds would want to know about investors who invest in their investment range. The resulting table would be as follows:

Investment type	Average investment (in 5-15 MM USD range)
Private equity	73422367.36
Venture	11755871.09
Angel	964848.855
Seed	722726.909

Moreover, private equity type of investment is opted by larger companies or start-ups that have grown in size.
 Considering Spark Funds is in its early stage, it would be better to invest in large companies or grown start-ups to minimise the risk, as these companies and start-ups would have been in operation for a longer time as compared to others.





# **COUNTRY ANALYSIS**

- Spark Funds wants to narrow down the countries based on the investment type chosen (i.e. private equity)
- Creating a data frame of top 9 countries based on private equity investment type and naming it top9. the resulting table would be as follows:

Country Code	Sum of amount raised in USD	Country Code	Sum of amount raised in USD
USA	76,221,276,799	CAN	2,993,348,151
CHN	21,116,648,606	NLD	2,032,735,114
IND	6,547,512,053	BRA	2,014,726,660
GBR	5,536,833,346	DEU	2,001,232,740
RUS	3,261,000,000		

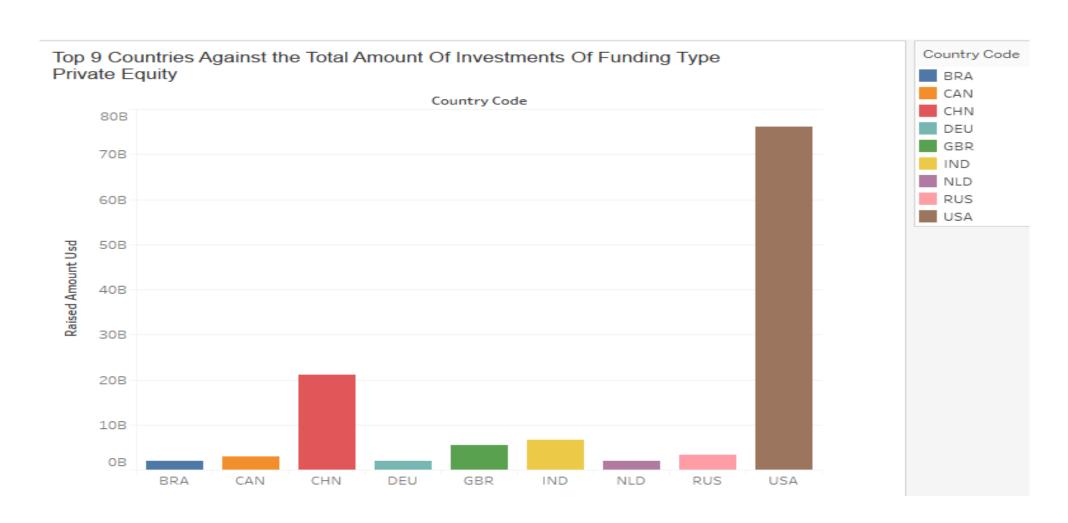
Note: Investment amount of USD 6,835,371,867does not have any country code and hence is not included in the above table

- > The list of countries where English is the official language, it can be noted that the top three countries where private equity type of funding is famous and where English is the official language:
  - USA
  - IND
  - GBR





Bar Chart showing top 9 Countries against the total amount of Investments of funding type FT. This should make the top 3 Countries very clear.





# **SECTOR WISE ANALYSIS**



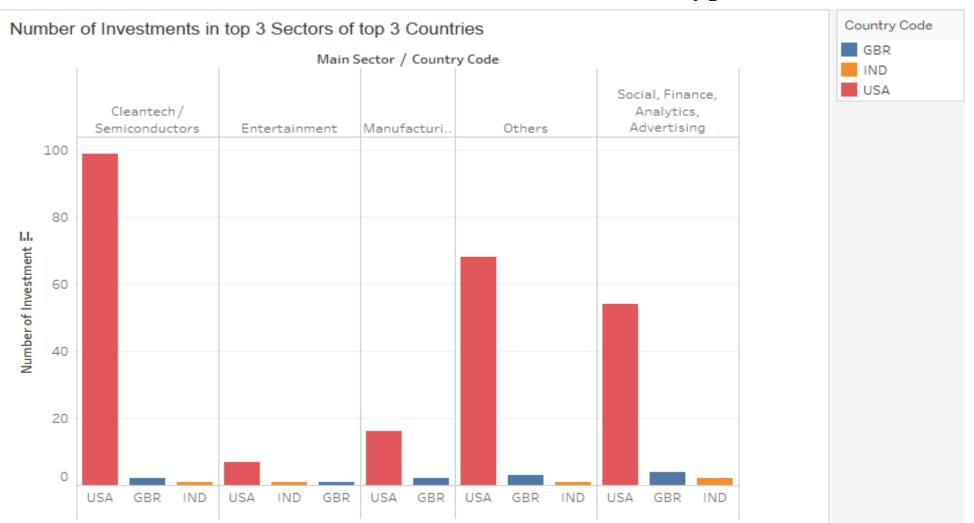
	USA_D	F ( USA)	India_	DF(IND)	GBR	_df(GBR)
Sector	Total Deal Amt ( in million)	No of Investment /Deal	Total Deal Amt ( in million)	No of Investment /Deal	Total Deal Amt ( in million)	No of Investment /Deal
Automotive & Sports	53.92	6	-	0	6.06	1
Clean tech/ Semiconductors	950.57	99	8.60	1	19.45	2
Entertainment	63.29	7	13.00	1	13.64	1
Health	314.01	34	-	0	-	0
Manufacturing	155.47	16	-	0	24.88	2
News, Search & Messaging	256.05	31	-	0	15.57	2
Others	644.13	68	10.00	1	27.22	3
Social, Finance, Analytics & Advertising	470.21	54	10.40	2	26.99	4

- Spark funds wants to narrow down to main sectors & countries where it can invest.
- Basic Strategy to Invest in sectors: Where most investments are occurring.
- •Following sectors should be considered as per our Investment strategy, in USA sector-clean tech/semiconductors, others & social, finance, Analytics & Advertising. For IND, sector-social, finance, analytics & adv., entertainment & others. For GBR, sectors Social, Finance, Analytics & Advertising, others & Manufacturing.





This shows the number of Investments in the top 3 sectors of the top 3 Countries on one chart (for the chosen investment type FT).







# **SUMMARY OF CASE STUDY**

Based on Investment Strategy of Stark Funds, (slide 2-3)

Funding Type selected is **Private Equity** (slide 4)

For English speaking countries – <u>USA, IND, GBR</u> (slide 5-6)

with Top 3 sectors on basis of Maximum number deal. (slide 7-8)

USA	IND	GBR
Clean tech/Semiconductors	Social, Finance, Analytics & Advertising	Social, Finance, Analytics & Advertising
Others	Entertainment	Others
Social, Finance, Analytics & Advertising	Others	Manufacturing