INVESTMENT CASE STUDY

SUBMISSION

Group Members:

1. Sathish Karthik Ramu
2. Saathvik K V
3. Amitava Mukherjee
4. Subhra Sinha

Spark Funds Investment Analysis

Business objective: The objective is to identify the best sectors, countries, and a suitable investment type for making investments. The aim is to invest between 5 to 15 million USD per round of investment only in English-speaking countries because of the ease of communication with the companies. 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.

Assumptions during analysis

During data clean up of master frame to make columns common some activities like trimming of extra spaces, changing to same case was done to ensure the unique count computed correctly
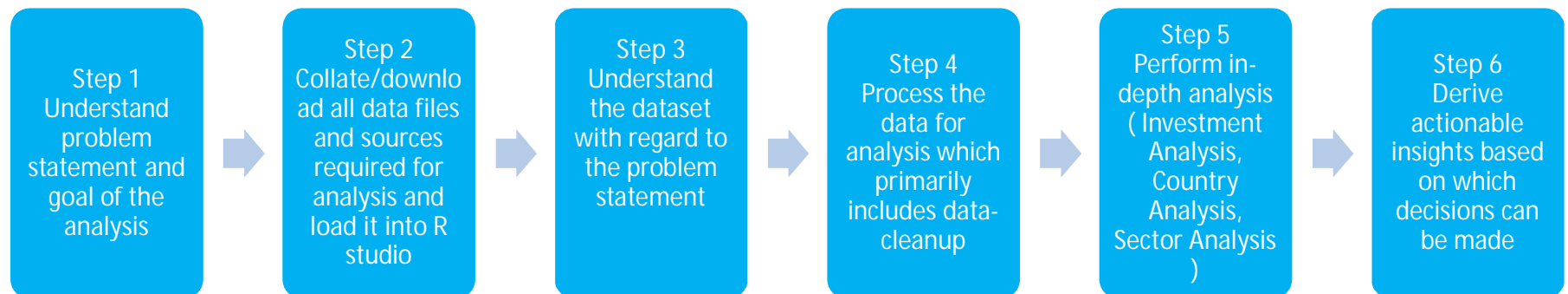
While calculating the average for each funding round type, the values with "NA" were replaced with 0

For country analysis there were several rows with country label blank which were not included while shortlisting the

For sector analysis, Blanks are not identified as any category and hence not considered for the analysis

For sector analysis "Others" was considered as a major investment category

Problem Solving Methodology Adopted

| Step 1 Understand problem statement and goal of the analysis | → | Step 2 Collate/download all data files and sources required for analysis and load it into R studio | → | Step 3 Understand the dataset with regard to the problem statement | → | Step 4 Process the data for analysis which primarily includes data-cleanup | → | Step 5 Perform in-depth analysis (Investment Analysis, Country Analysis, Sector Analysis) | → | Step 6 Derive actionable insights based on which decisions can be made |

Investment Analysis

|	
Average funding amount of venture type	11750339
Average funding amount of angel type	959049
Average funding amount of seed type	719849
Average funding amount of private equity type	73308593
Recommended investment type for Spark Fund to invest between 5 to 15 million USD per investment round	Venture

Country Analysis

Considering the requirement to invest only in English speaking countries, analysis reveals the following are the top 3 English speaking countries where maximum investments and could be the first choice for Spark Funds

Top English speaking country	USA
Second English speaking country	GBR
Third English speaking country	IND

Sector Analysis

|	Country 1(USA)	Country 2(GBR)	Country 3(IND)
Total number of Investments (count)	11149	577	299
Total amount of investment (USD)	99661524549	5028704358	2683537552
Top Sector name (no. of investment-wise)	Others	Others	Others
Second Sector name (no. of investment-wise)	Cleantech, Semiconductors	Cleantech, Semiconductors	News, Search, Messaging
Third Sector name (no. of investment-wise)	Social,Finance, Analytics, Advertising	Social,Finance, Analytics, Advertising	Entertainment
Number of investments in top sector (3)	2923	143	109
Number of investments in second sector (4)	2297	127	52
Number of investments in third sector (5)	1912	98	33
For point 3 (top sector count-wise), which company received the highest investment?	Virtustream	Electric Cloud	Firstcry.com
For point 4 (second best sector count-wise), which company received the highest investment?	Biodesix	EUSA Pharma	Gupshup

Funding type based on % of total investment and average investment
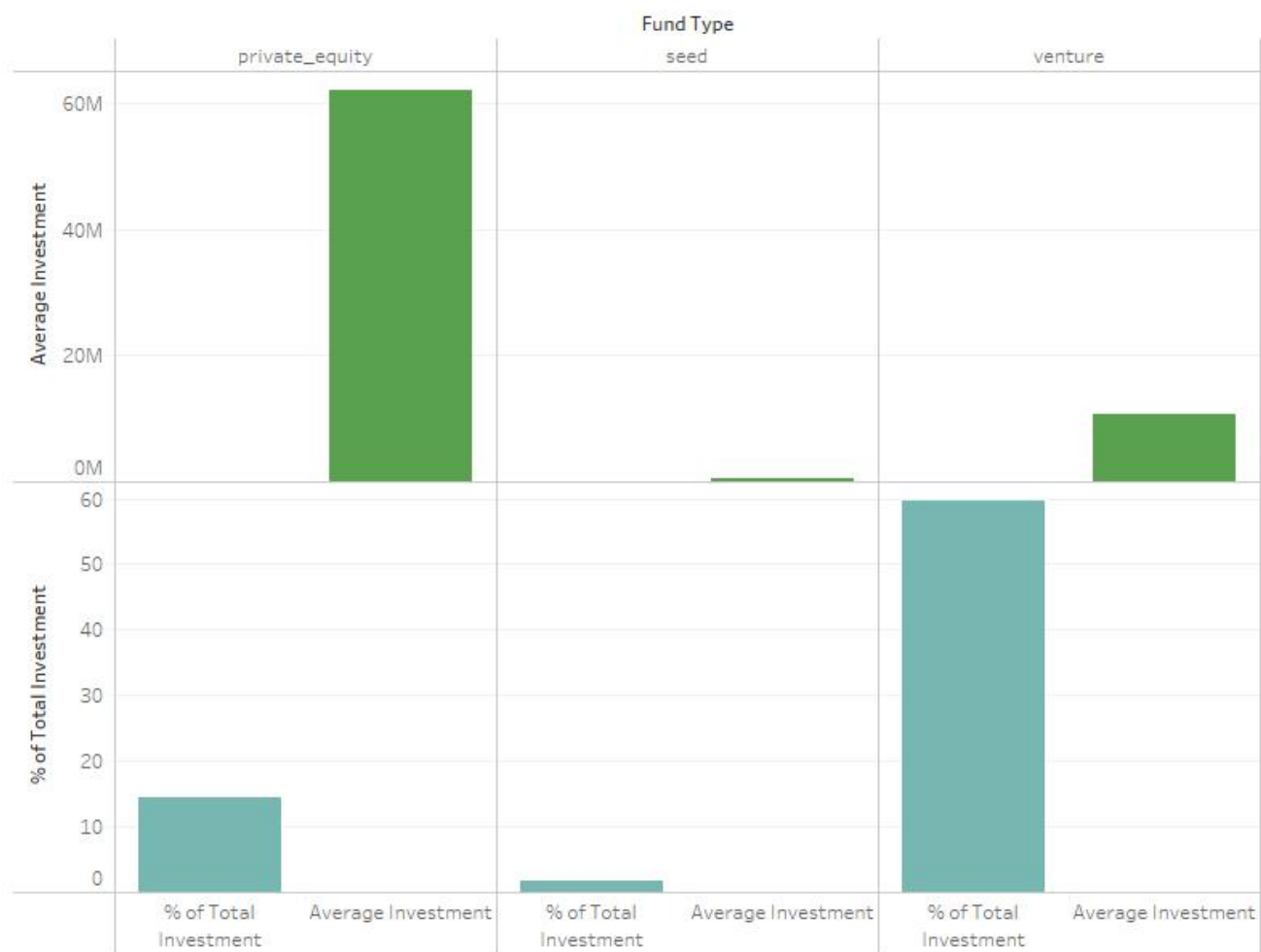
The top 9 countries against the total amount of investments of funding type venture.
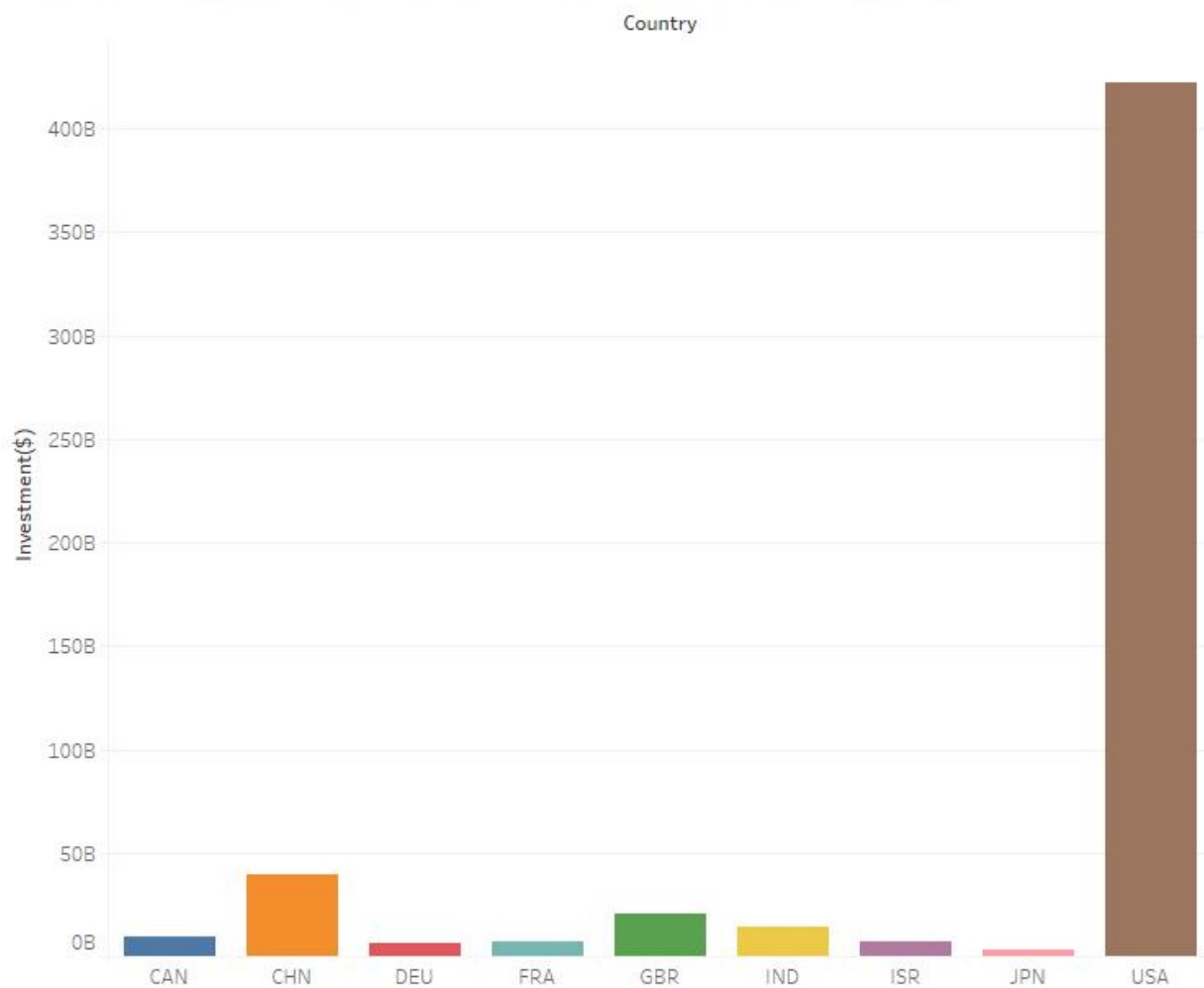
Number of investments in the top 3 sectors of the top 3 countries for Investment Type venture
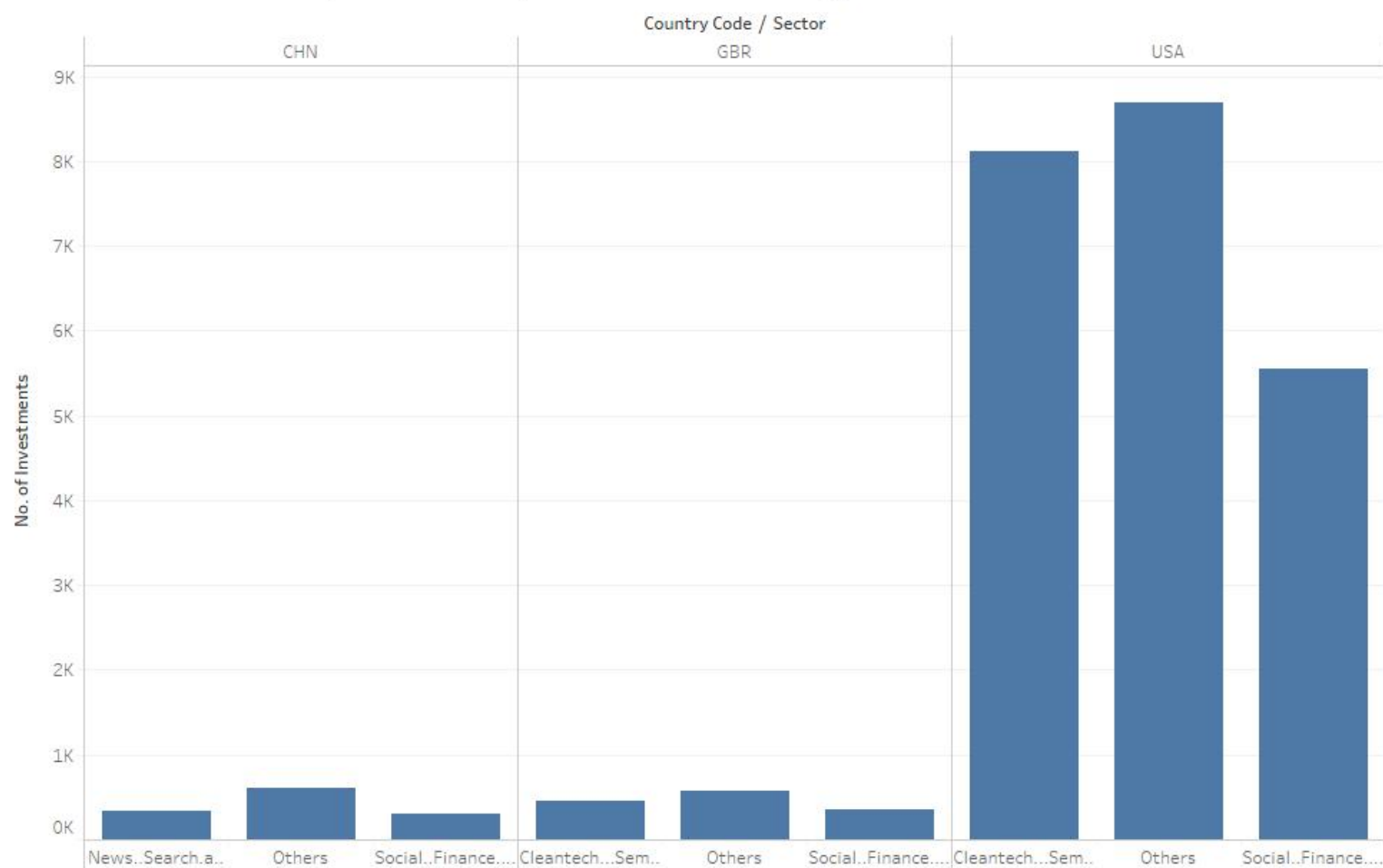
Note : These are the top 3 countries and not the top 3 English speaking countries.

Conclusion

- There are 65996 unique companies where Spark Funds can potentially invest

- Since the investment range is 5 million to 15 million (both values included), the proposed investment type in "VENTURE"

- Based on the requirement to invest only in English speaking countries, USA, GBR and IND are the top choices in terms of receiving top investments in the past

- Others was considered as a major sector and it is the top sector for investment for USA, GBR and IND

Recommendations

- For greater accuracy in decision making the quality of data is important. A large number of rows with blank values or marked NA will highly influence the analysis. I In certain cases assumptions were made such as replacing NA with 0 which again affect values such as average investments for sector/region etc. However in certain other cases Ex: Country names were blank and not included in the analysis but involved significant values of investments. If there is a key to interpret the values of these countries it may influence the insights derived from such analysis.