

SPARKS FUNDS INVESTMENT CASE STUDY SUBMISSION

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Spark Fund Investment Analysis

Spark Funds, an asset management company, is looking for investment.

The overall strategy is to understand the global trend, implying that the '**best**' sectors, countries and investment type where most investors are investing.

Business constraints:

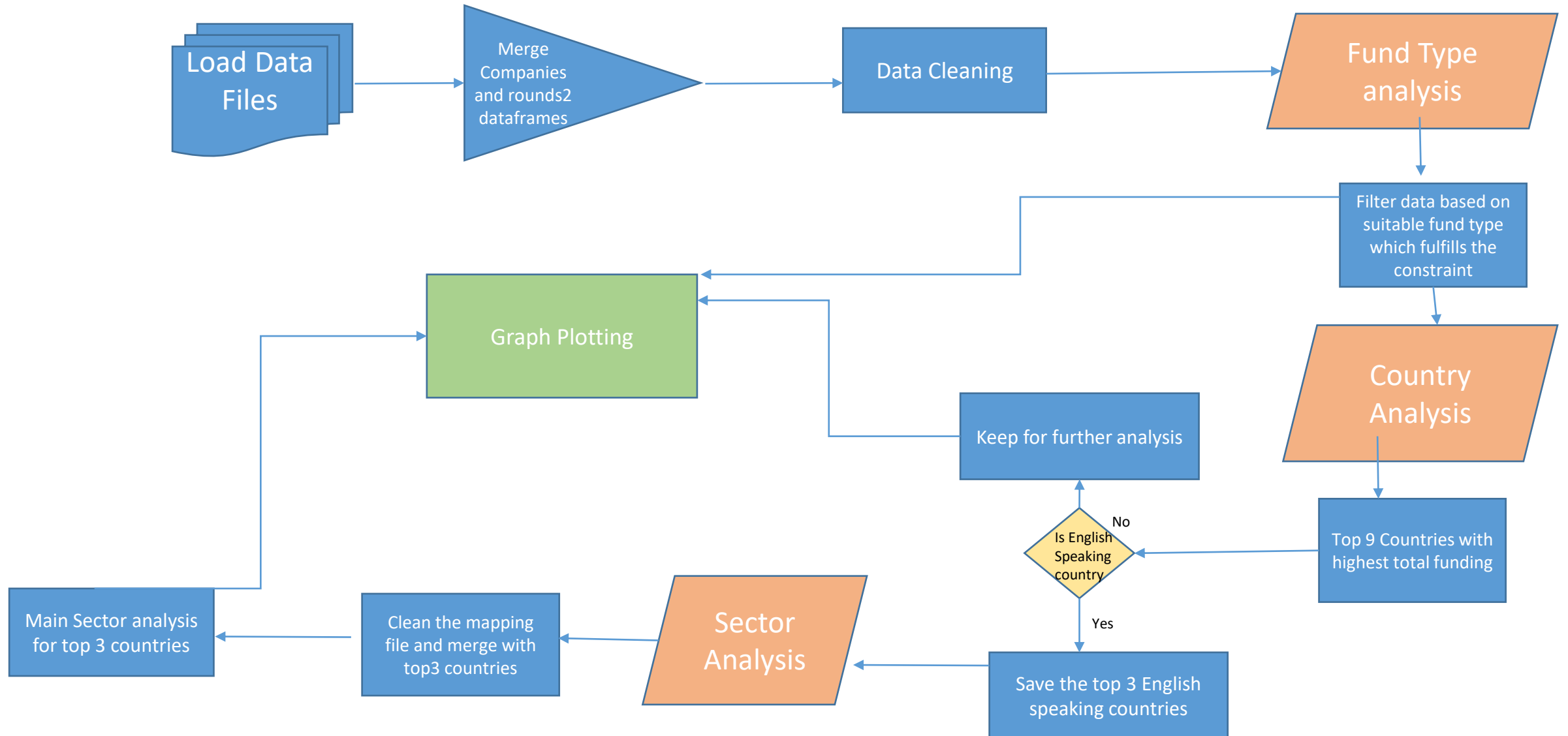
- It wants to invest between 5 to 15 million USD per round of investment
- It wants to invest only in English-speaking countries

Business objective: To identify the best sectors, countries, and a suitable investment type.

Goals of data analysis:

- Investment type analysis
- Country analysis
- Sector analysis

Flow Chart



Data For Analysis

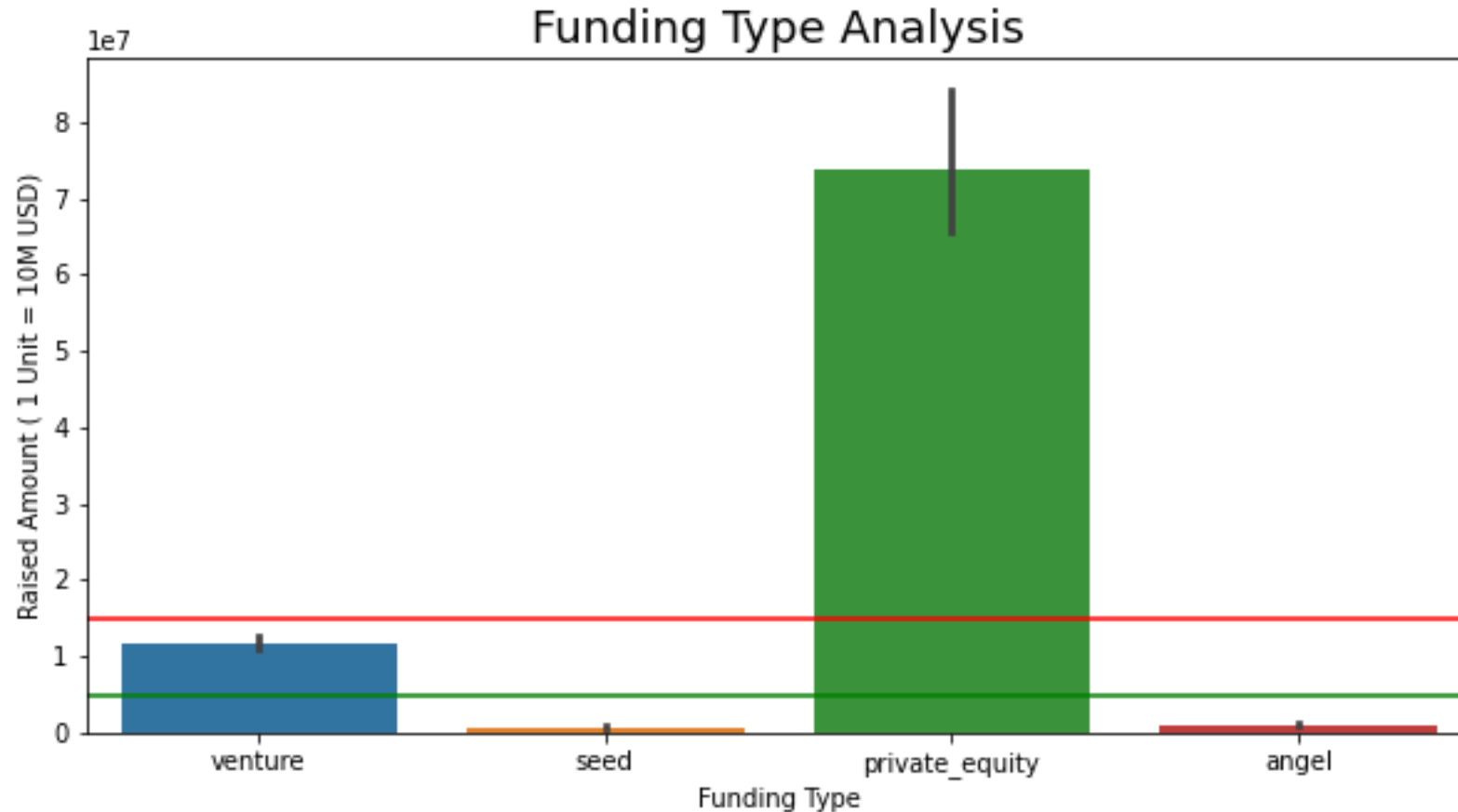
Data Files

- Company Data, A file with basic data of companies
- Investment Rounds Data, companies past investment round details
- Mapping File, category to main sector mapping
- English-speaking countries reference document.

Summary for Analysis

- Correct encoding for data loading
- Merge the companies and rounds2 dataframe
- Remove rows and columns having null values where data is not required for analysis
- Fund Analysis and Country analysis
- Correcting the incorrect data in mapping file and data cleaning
- Map the sectors with the mapping files
- Sector analysis

Funding Type Analysis



- There are total 14 investments
- Avg. amount invested in private equity is beyond the 15M USD investment which violates the constraint
- Avg. investment amount for seed and angel type are below the amount range starting limit of Spark Fund which violates the constraint
- Venture is the only investment funding type which is $\geq 5M$ and $\leq 15M$ USD.

Type	No. of investment
venture	47809
seed	21095
debt_financing	6506
angel	4400
grant	1939
private_equity	1820
undisclosed	1345
convertible_note	1320
equity_crowdfunding	1128
post_ipo_equity	598
product_crowdfunding	330
post_ipo_debt	151
non_equity_assistance	60
secondary_market	28

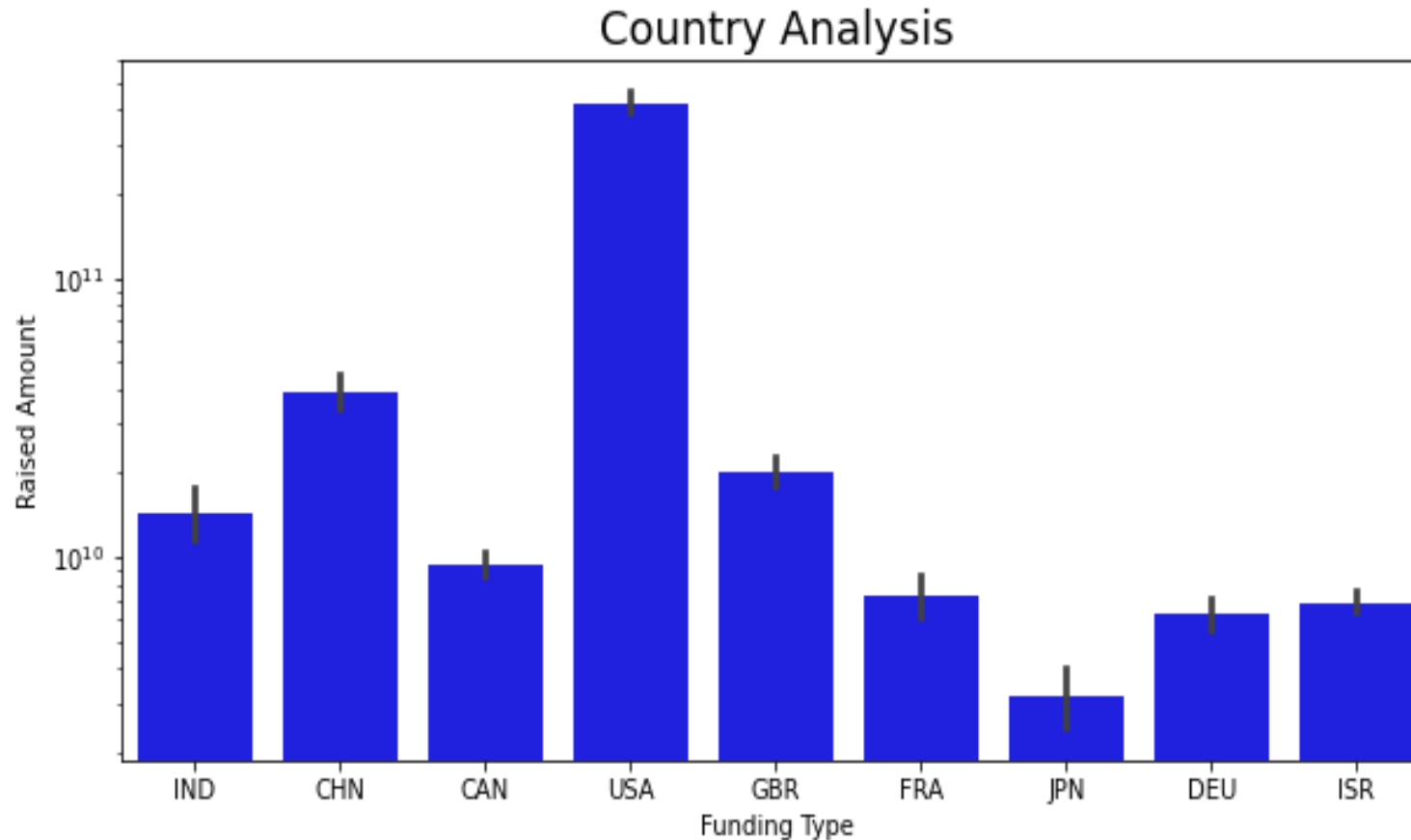
Here the fund type venture is selected as the well suited investment type as per the constraints

Country Analysis

country_code	investment
USA	420068000000.00
CHN	39338920000.00
GBR	20072810000.00
IND	14261510000.00
CAN	9482218000.00
FRA	7226851000.00
ISR	6854350000.00
DEU	6306922000.00
JPN	3167647000.00

Country Analysis

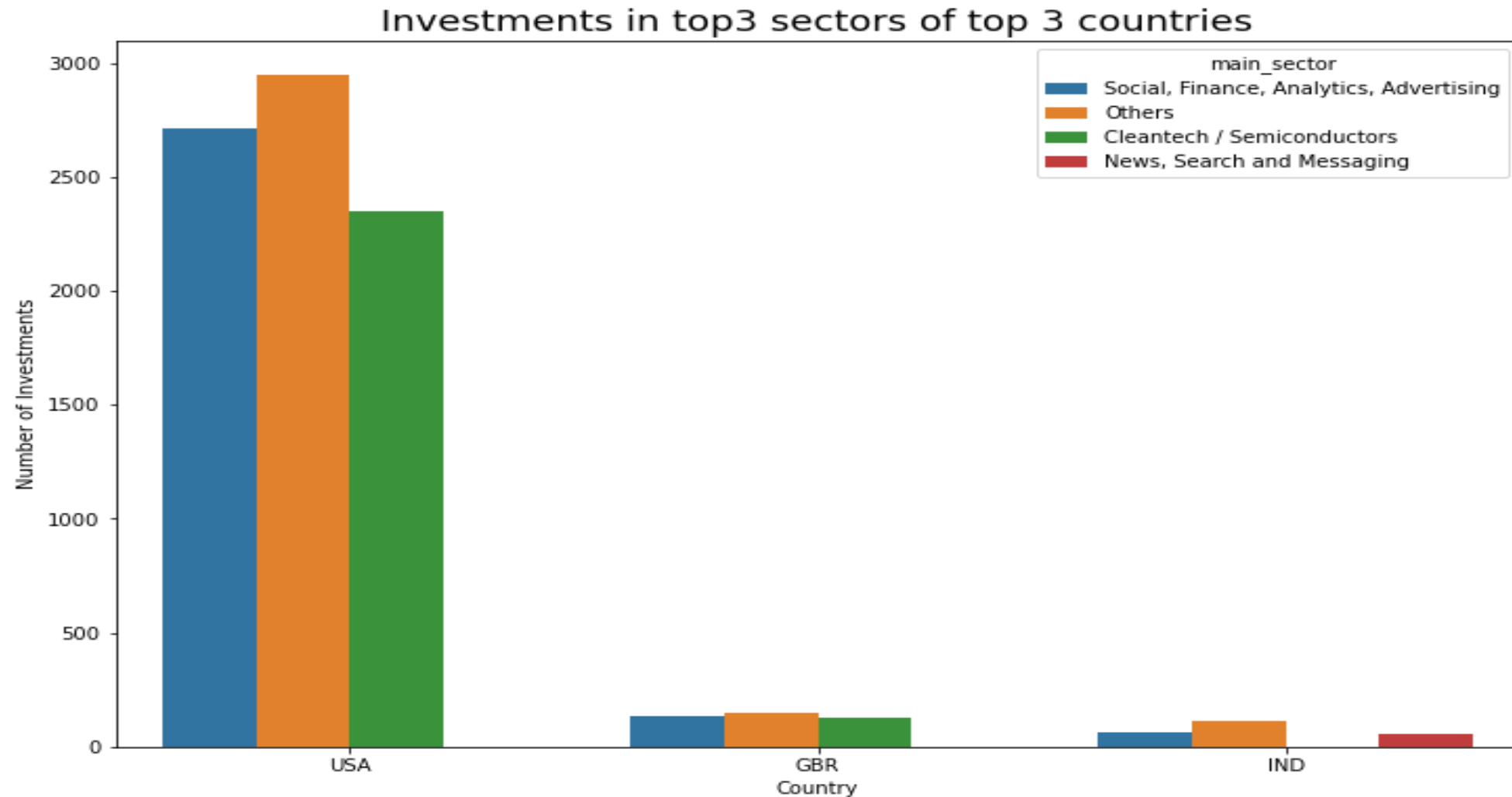
For Venture fund type



- USA amounts as the most invested country.
- China follows USA, but is NOT a English speaking country.
- USA, United Kingdom and India are the Top 3 countries to attract investments.
- Canada, France, Germany, Israel and Japan are other among the top 9 invested countries.

Here the top 3 English speaking countries have been filtered based on the total investment amount

Sector Analysis



Here the top 3 sectors for each country have been filtered based on the highest number of investments

Sector Analysis

Prospect countries	Prospect Sectors	Companies with most number of investments
USA	1) Others	/organization/virtustream
	2)Social , Finance, Analytics, Advertising	/organization/shotspotter
	3) Cleantech Semiconductors	/organization/biodesix
GBR	1) Others	/organization/electric-cloud
	2)Social , Finance, Analytics, Advertising	/organization/celltick-technologies
	3) Cleantech Semiconductors	/organization/eusa-pharma
IND	1) Others	/organization/firstcry-com
	2)Social , Finance, Analytics, Advertising	/organization/manthan-systems
	3)News, Search and Messaging	/organization/gupshup-technology-india-pvt-ltd

Conclusions

Based on the analysis, Spark Fund may consider investing in the following countries.

Funding type: Venture

Prospect countries	Prospect Sectors
USA	1) Others
	2)Social , Finance, Analytics, Advertising
	3) Cleantech Semiconductors
GBR(United Kingdom)	1) Others
	2)Social , Finance, Analytics, Advertising
	3) Cleantech Semiconductors
IND	1) Others
	2)Social , Finance, Analytics, Advertising
	3)News, Search and Messaging