

INVESTMENT CASE STUDY

SUBMISSION

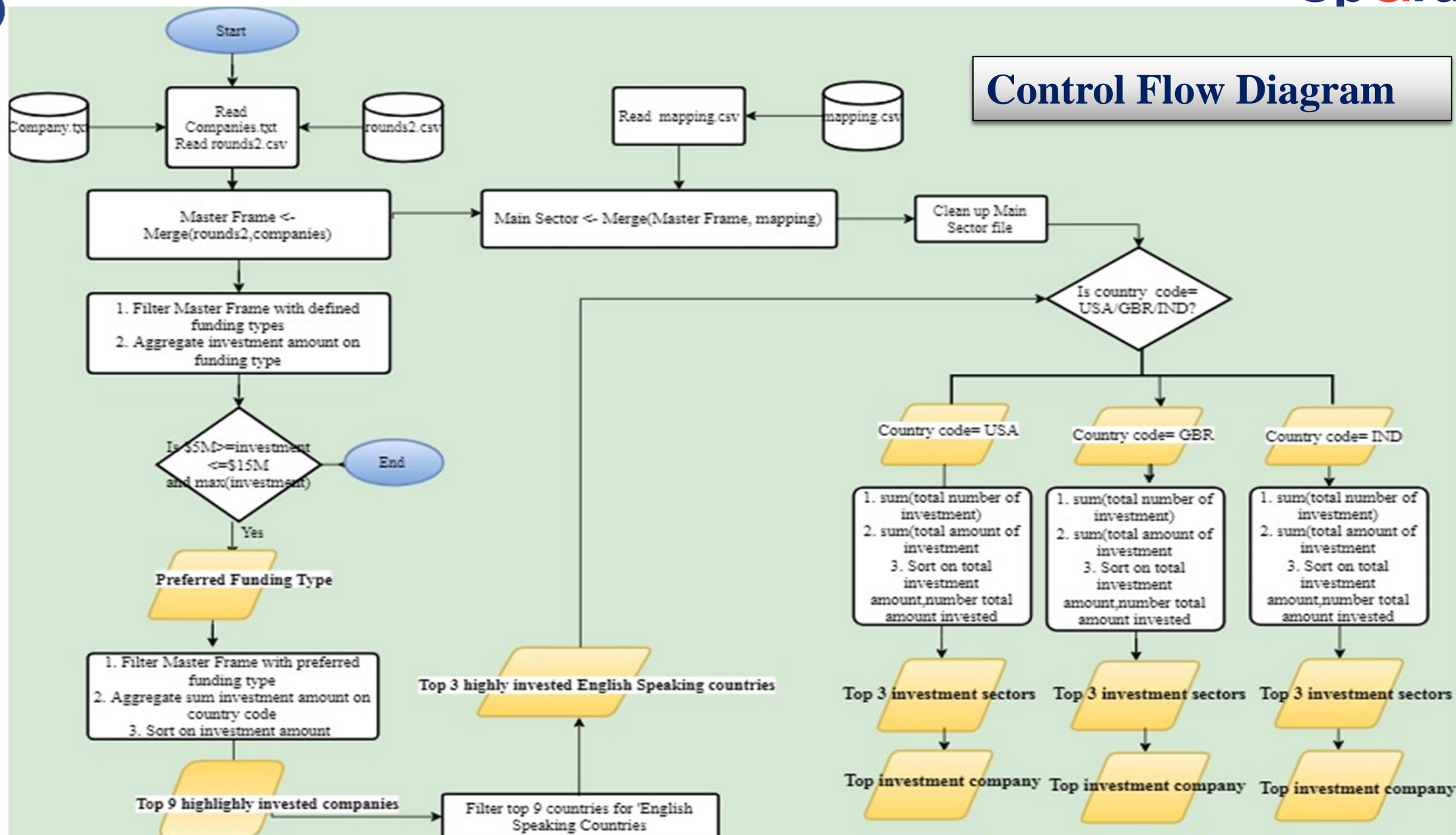
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Abstract

- Spark Fund's investment decision is based on the global trend in investment analysis. Global trend in investment analysis has been segregated into three clusters namely, finding best suited investment fund, country with highest investment and highly invested sectors in these countries.
- The analysis has been done considering the two minor constraints from Spark Fund. First constraint is on the investment amount which is 5M-15M USD per round of investment. Second constraint is they will invest only in English-speaking countries.
- Our analysis is based on the raw input data on country and investment. After data cleaning, filtering and aggregating, 'Venture' investment fund type has been identified as best suited fund.
- We have identified top 3 English speaking countries with highest investment in venture fund – *United States of America, Great Britain and India*. Another round of data cleaning, aggregation has been performed considering all the constraints and filtering data based on fund type analysis and country analysis results.
- Finally we have analyzed top 3 investment sectors and the companies from each these countries for Venture type of funding.
- The identified companies have the potential for Spark Fund investment .

Control Flow Diagram



Funding Round Type Analysis



- First phase of analysis is performed to identify best suited funding type.
- From the raw input data (i.e. companies and rounds2 files), 114949 observations are extracted initially.
- Permalink field has been used to identify the each individual company. Based on the assumptions that Spark Fund wants to select best suited funding types out of 'venture', 'angel', 'seed' and 'private equity' fund types, we have sliced our master data for these four funding types.
- Master data has been rolled up to get aggregate mean of investment amount for each funding type.
- Based on Spark Fund constraints that the average investment amount should be in range of 5M-15M USD, we have filtered out funding types . '**Venture**' funding type has 11.7M USD average funding amount which is highest within restricted investment amount range and naturally it becomes most suitable funding type.

Country Analysis



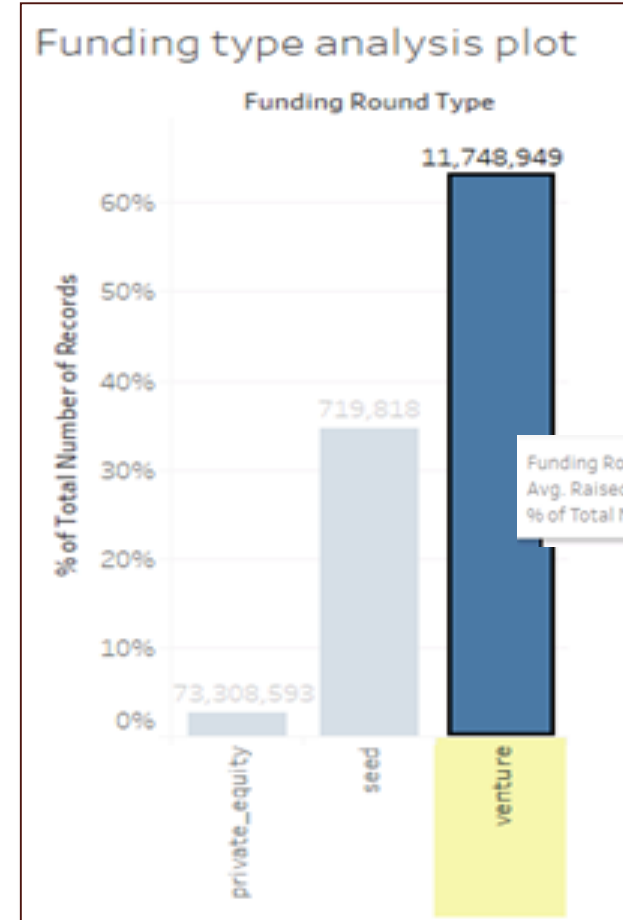
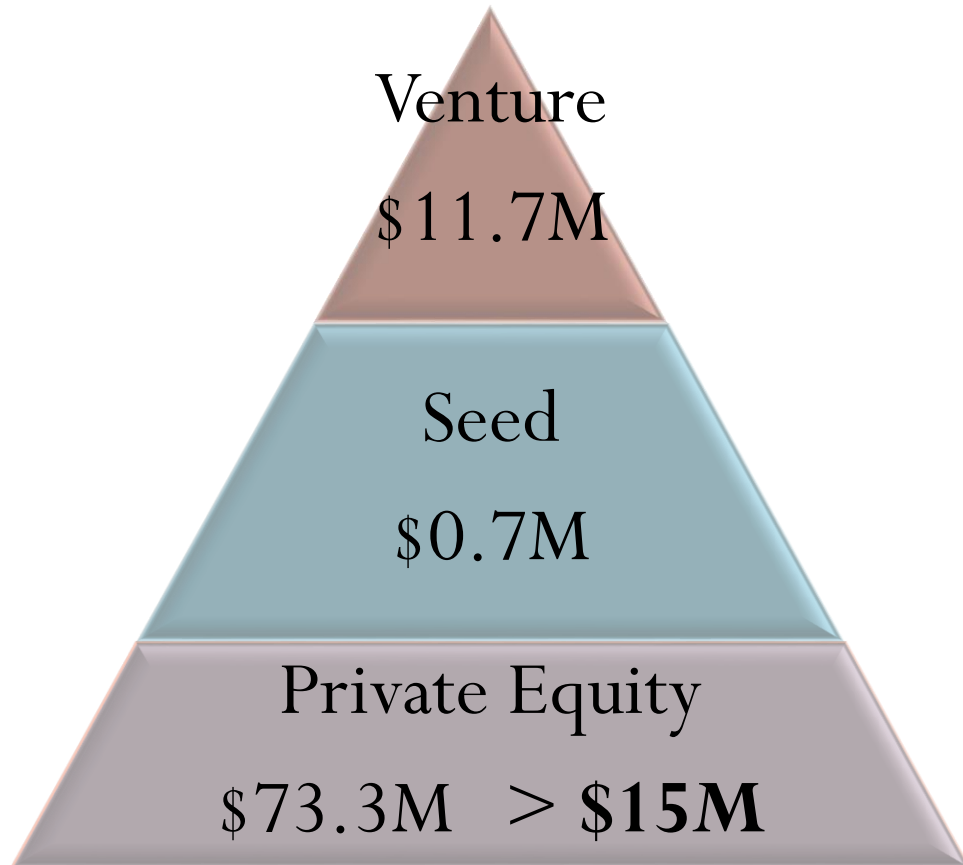
- Second phase of analysis is performed to identify countries where most investment happened on ‘Venture’ funding type.
- We have sliced the master file for ‘venture’ funding type and rolled it up to aggregate on investment amount for each country code.
- Initially we got top 9 countries with highest investment. Here we kept ‘Blank’ country code out of consideration.
- Based on Spark Fund investment constraint on English Speaking countries, top 9 countries are filtered for English official language. Out of 9 countries, 4 are English speaking countries.
- Top 3 countries – ***United States of America, Great Britain and India*** are selected after sorting 4 countries based on investment amount on Venture fund.

Investment Sector Analysis



- Final phase of analysis is performed to identify main sector of investment in top 3 countries for 'Venture' fund type.
- After merging and gathering mapping file with the master file, we have diced it into 3 dices for 3 different countries with Venture funding type and investment amount range within 5M - 15M USD.
- For each dice of 3 countries we aggregate to get sum of investment amount and number of investments on each main sector. Based on number of investment on main sector we have sorted to get top 3 investment sectors in each country.
- 'Others' main sector from all the countries has the highest number of investment. And from 'Others' sector we analyzed the companies having highest investment amount.

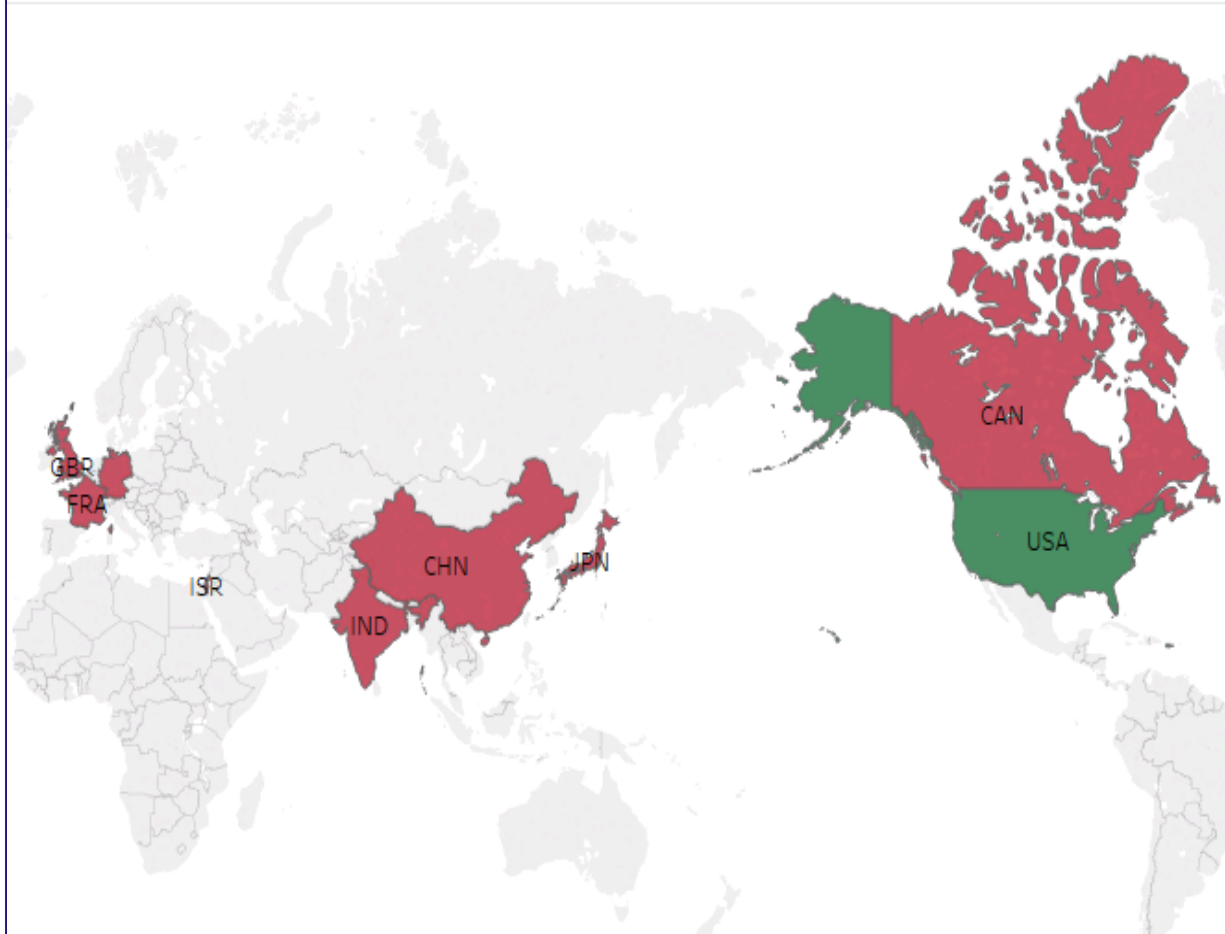
Funding Type Analysis Result



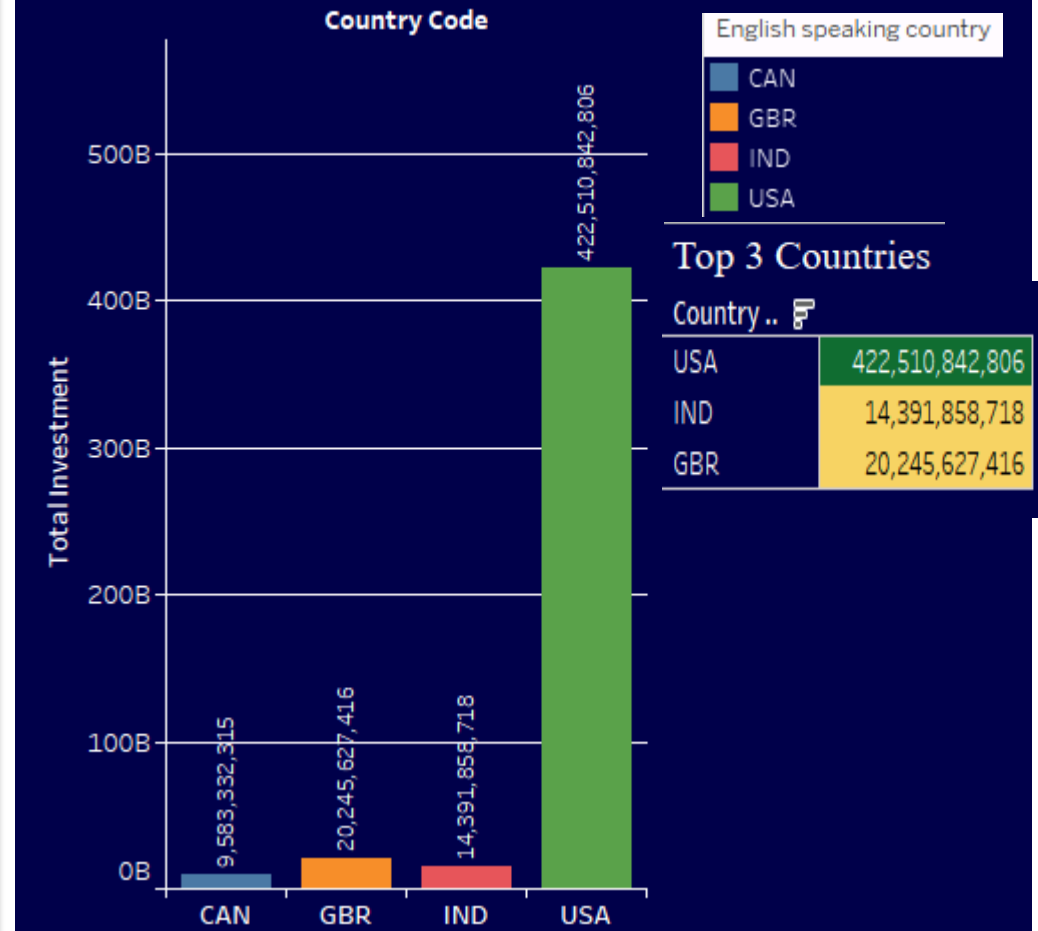
As Private Equity fund type has more than \$15 M average investment, it will be excluded from analysis due to Spark Fund Investment constraints.

Country Analysis Result

Top Countries with Highest investment in venture

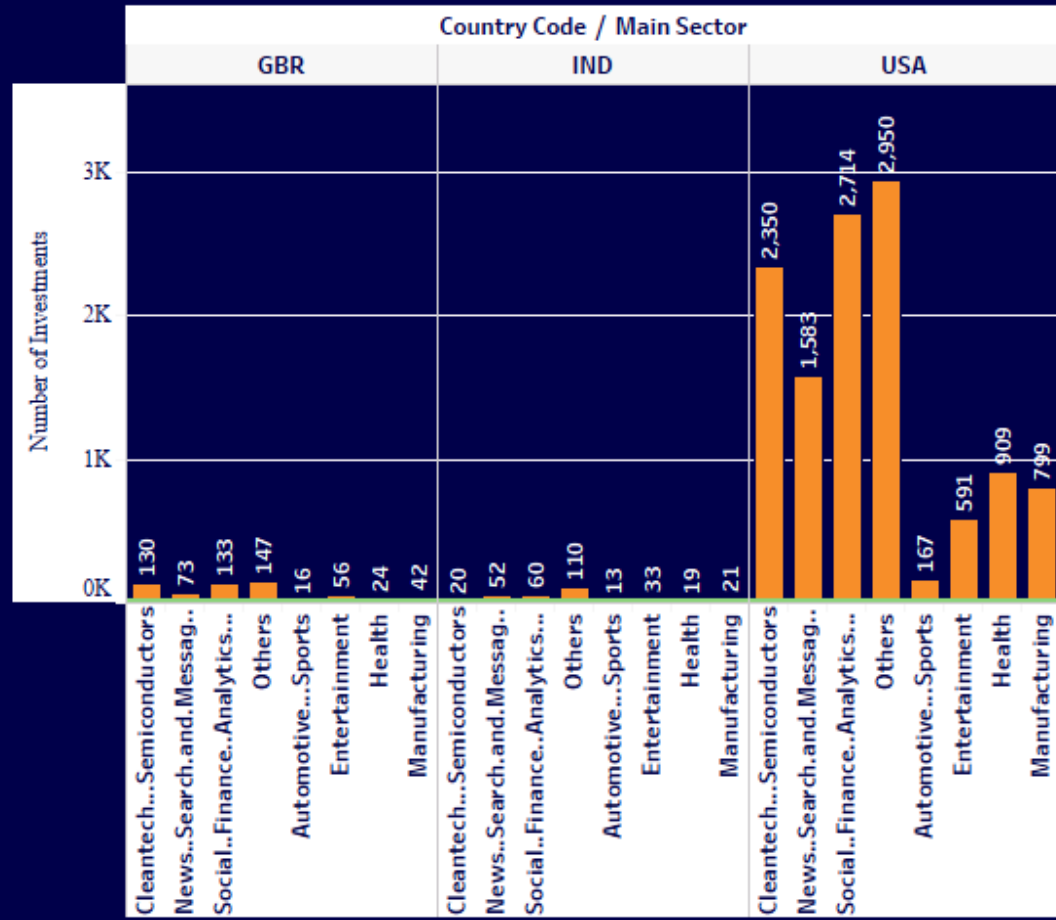


Top English Speaking countries with highest investments

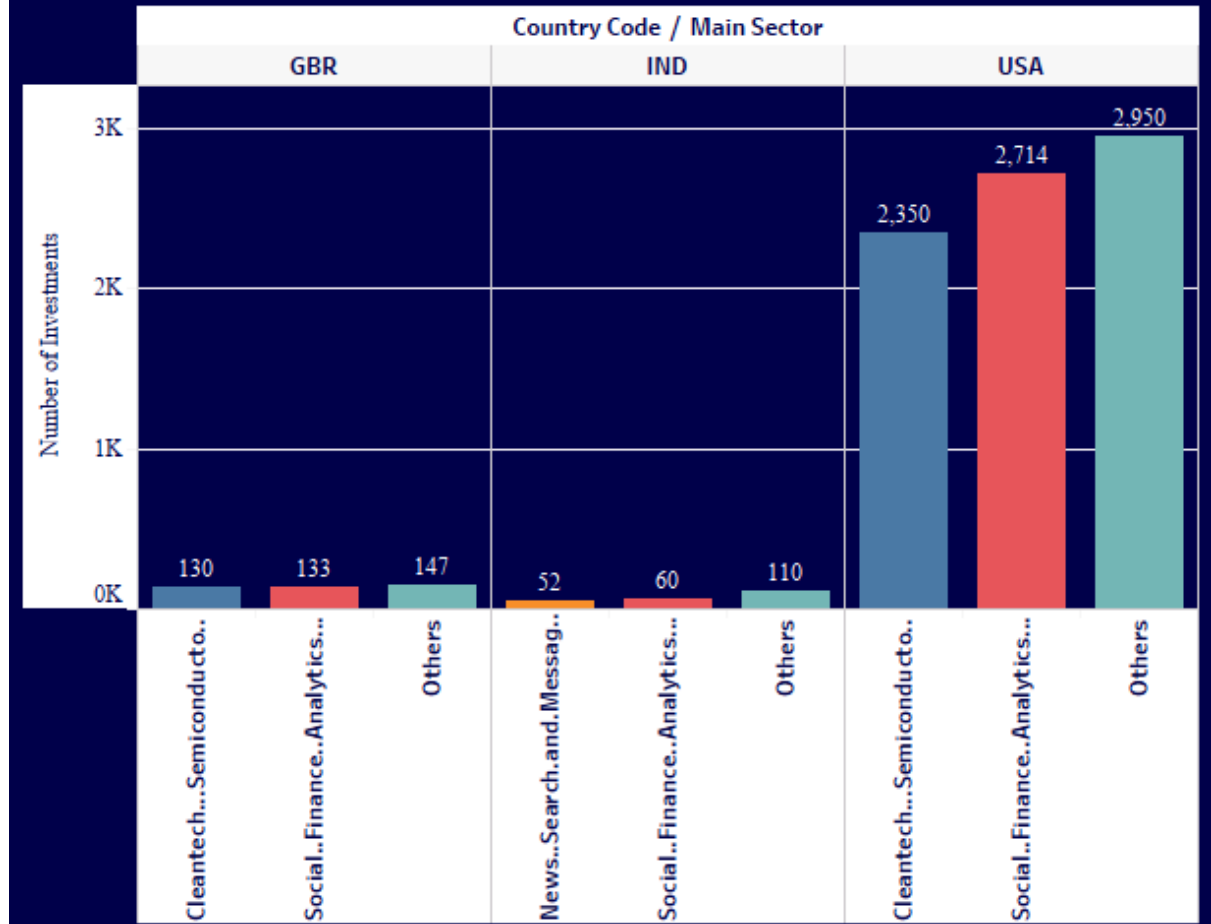


Sector Analysis Result

Investments in 8 Sectors in Top 3 Countries



Investments in Top 3 Sectors in Top 3 Countries



Conclusions

Top 3 country wise we conclude prospective sectors and companies for Spark investment.

USA

Top sectors:

1. Others
2. Social, Finance, Analytics, Advertising
3. Cleantech, Semiconductors

Top Companies in Others sector

Virtustream
Capella Photonics

Great Britain

Top sectors:

1. Others
2. Cleantech, Semiconductors
3. Social, Finance, Analytics, Advertising

Top Companies in Others sector

Electric Cloud
SenSage

India

Top sectors:

1. Others
2. Social, Finance, Analytics, Advertising
3. News, Search and Messaging

Top Companies in Other sector

FirstCry.com
Myntra