INVESTMENT ASSIGNMENT

SUBMISSION

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Abstract

The CEO of Spark Funds wants to understand the global trends in investments so that she can take the investment decisions effectively.

<u>Objective:</u>
The objective is to identify the best sectors, countries, and a suitable investment type for making investments. The overall strategy is to invest where others are investing, implying that the 'best' sectors and countries are the ones 'where most investors are investing'.
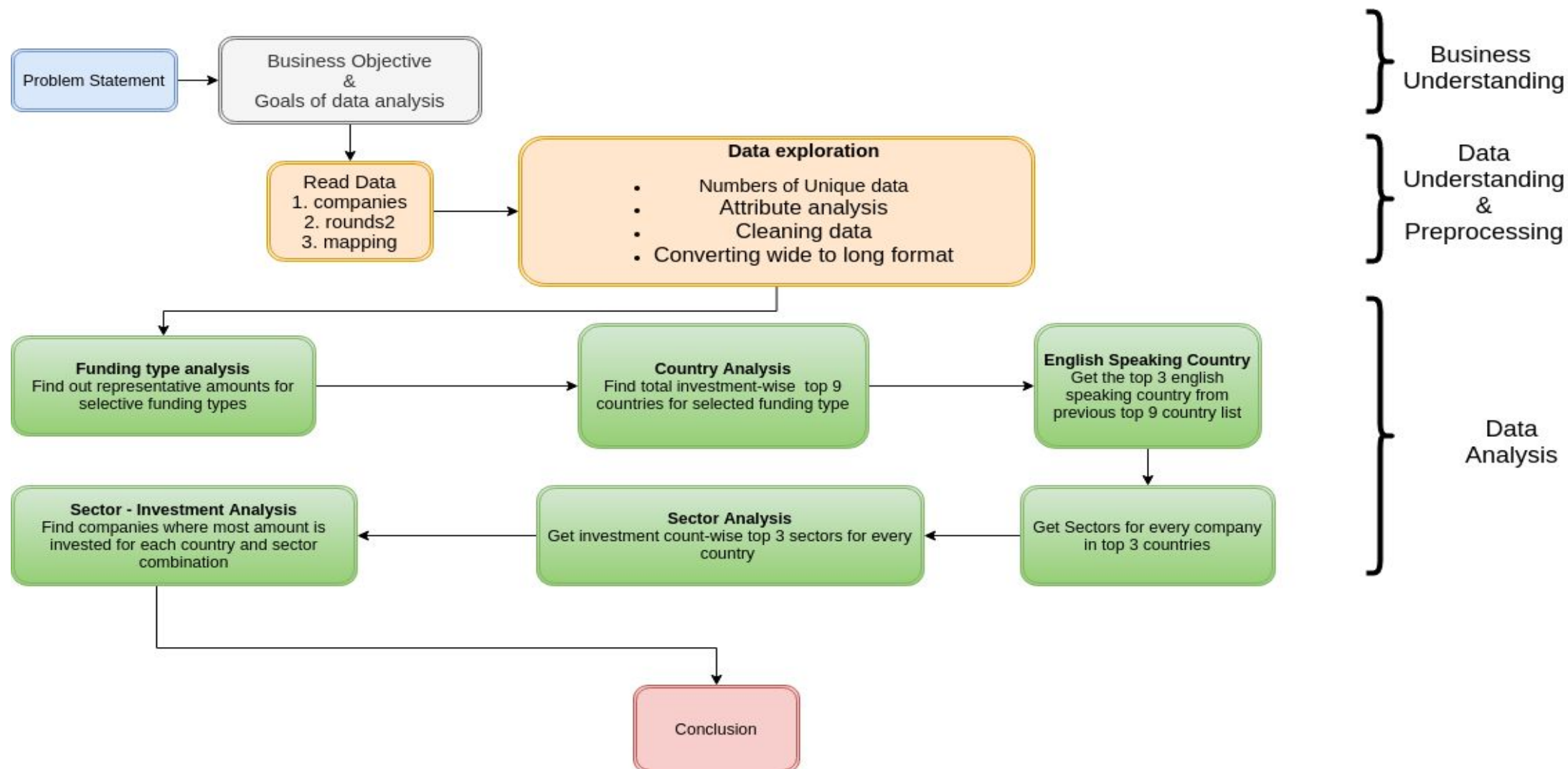
<u>Strategy</u>:
Spark Funds wants to invest where most other investors are investing. This pattern is often observed among early stage startup investors.

<u>Constraints</u>:
- Invest amount is between 5 to 15 million USD per round of investment
- Invest only in English-speaking countries

Problem solving methodology

Data Analysis

Number of Companies: 66368
**Number of Investments in companies:** 114949

Missing values Percentage

Companies	
Variable	Missing Values
permalink	0
name	0
homepage_url	7.62
category_list	4.74
status	0
country_code	10.48
state_code	12.88
region	12.1
city	12.1
founded_at	22.93

Rounds2	
Variable	Missing Values
company_permalink	0
funding_round_permalink	0
funding_round_type	0
funding_round_code	72.91
funded_at	0
raised_amount_usd	17.39

As we are analysing number of investment & amount of investments, missing value imputation and data removal is not performed.
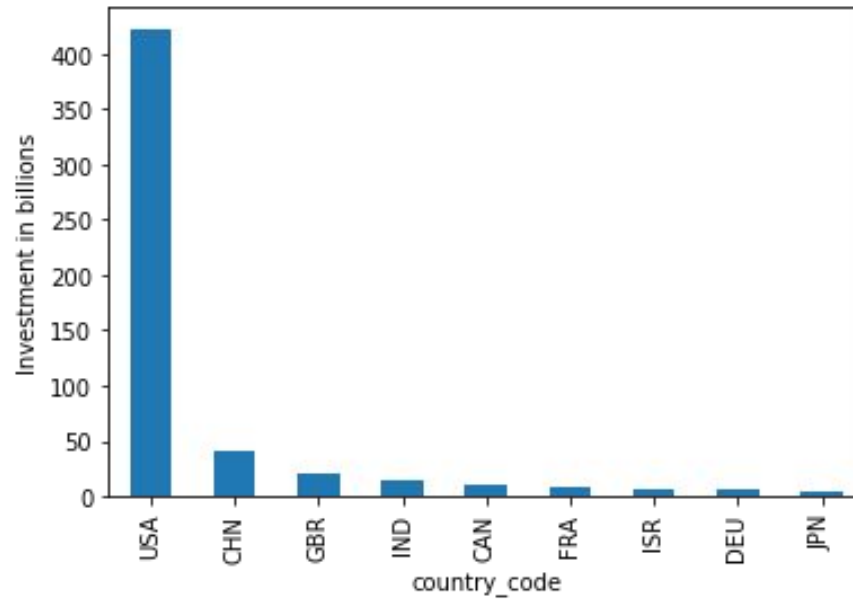
Funding Type Analysis
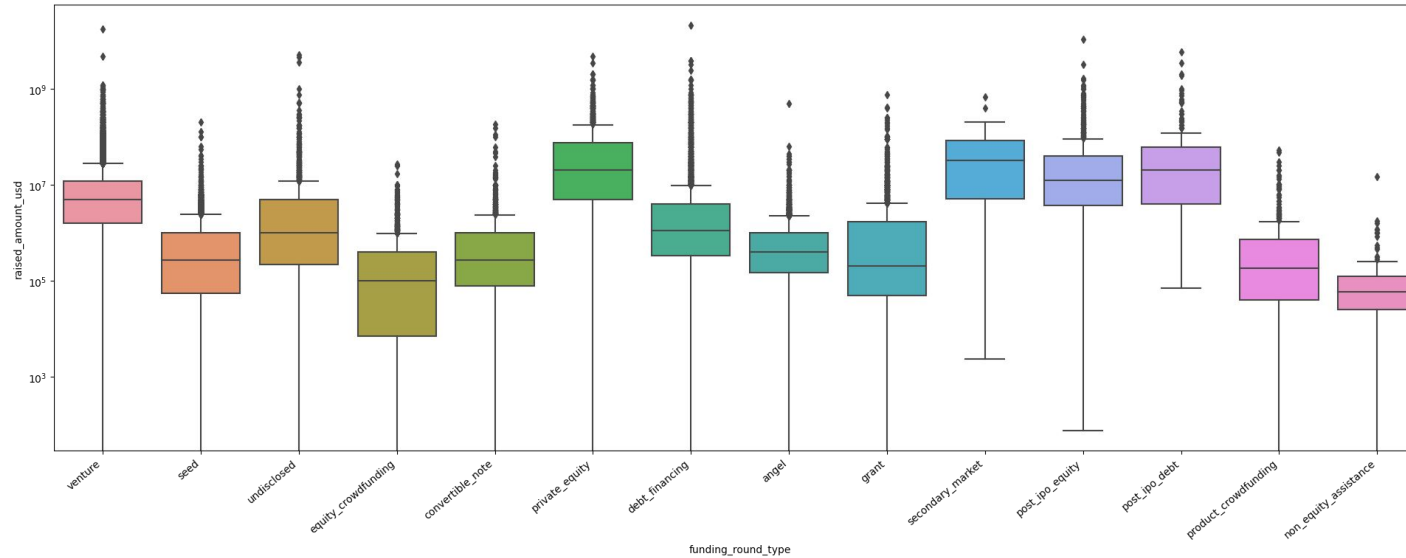
We can here see the distribution of investment amount for different types of fundings.
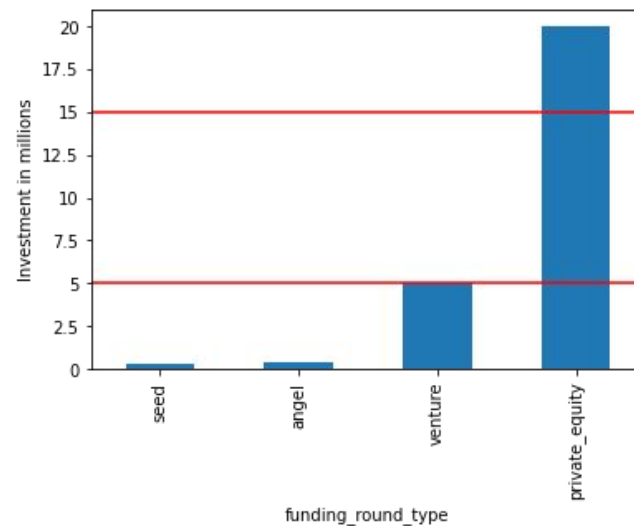
- Here we see median values of invest amounts for different types of funding of interest.

- Here we see, Venture is the only fund type where median value is within our investment range of 5M - 15M

Country Analysis

Distribution of country-wise total investment and investment count

Country	Total Raised amount	Count
USA	422,510,842,796	36139
CHN	39,835,418,773	1564
GBR	20,245,627,416	2055
IND	14,391,858,718	824
CAN	9,583,332,317	1256
FRA	7,259,536,732	917
ISR	6,907,514,579	796
DEU	6,346,959,822	558
JPN	3,363,676,611	274

As Sparks foundation only wants to invest in english speaking country, we can omit China.

Top 3 countries where highest amount is invested are
1. USA
2. GBR
3. IND

Sector Analysis

Country wise top sector analysis

sector	country_code	count	raised_amount_usd
Others	USA	8767	82,822,211,972
Cleantech / Semiconductors	USA	8268	119,931,874,301
Social, Finance, Analytics, Advertising	USA	7822	86,331,402,349
Others	GBR	580	4,492,219,646
Social, Finance, Analytics, Advertising	GBR	481	3,773,328,672
Cleantech / Semiconductors	GBR	466	5,073,290,093
Others	IND	332	6,329,507,440
Social, Finance, Analytics, Advertising	IND	193	1,578,804,920
News, Search and Messaging	IND	154	1,739,579,948
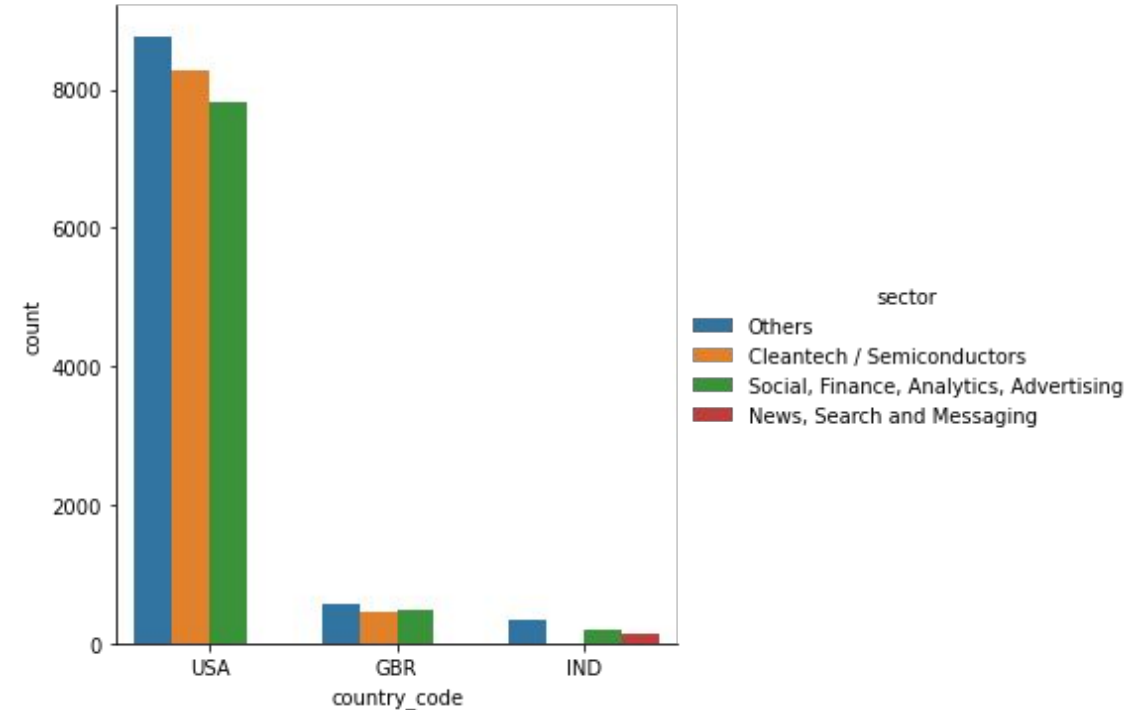
country_code	raised_amount_usd	raised_amount_perc
GBR	20245627416	4.43
IND	14391858718	3.15
USA	422510842796	92.42

Here we can see ratio of country-wise investment vs Total investment amount(in top 3 countries).

It is observed that investment in companies in USA sums up to ~92% of total investment (in top 3 countries).

Conclusions

➢ It is suggested that Spark Fund should invest in companies with funding type: **VENTURE**

➢ Countries that satisfy 2 business restrictions are USA, GBR & IND.

➢ It can be seen from the figure in Slide 6, Some sectors like Others & Social, Finance, Analytics , Advertising is grabbing attention from investors irrespective of the country.

➢ We also see a sector which is quite popular in 2 of the top 3 countries which is Cleantech / Semiconductors

➢ As Spark Fund's strategy is to invest where other investor are investing, Most of the amount (~90%) should go to Companies in USA & 5% each can go to GBR and IND, where the amount can be divided into 3 part each going to companies with most investment in top 3 sector.

➢ Even though this is out of scope of this assignment, we could gather some information about company's performance. That should help us invest wisely.