



INVESTMENT CASE STUDY SUBMISSION

Group Name: Synergy

- 1. D Mruthyunjaya Kumar (Facilitator)
- 2. Dharmanandana Reddy Pothula
- 3. Ashwin Suresh
- 4. Manohar Shanmugasundaram





Spark Funds Investment Analysis

Spark Funds is an asset management company. They wanted to make investments in a few companies and hence the CEO wants to understand the current global investment trends, so that they can make effective investment decision.

Spark Funds wants to invest based on the following criteria.

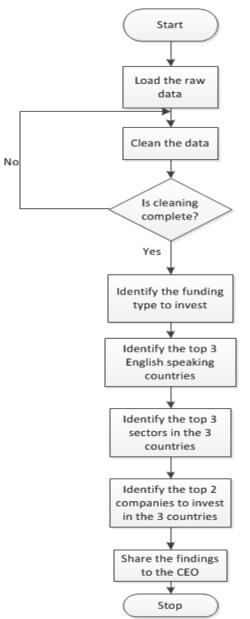
- It wants to invest between 5 to 15 million USD per round of investment
- It wants to invest only in English-speaking countries because of the ease of communication with the companies

Our analysis is to assist Spark Funds to make their investment decision, as part of this case study we will analysis the global investment data and provide the findings to the CEO of Spark Funds.













Data Cleaning

As first step of this case study, we took data cleaning before doing any analysis with the data. We had done the following to clean the data provided.

- Converted the unique field to identify a company to lower case. So comparisons with multiple data sets will not fail.
- Converted the sector mapping sheet from wide to long.
- Cleaned the data in the mappings sheet. For example the data provided is "A0lytics", we corrected this values as "Analytics".
- Converted the null values for country code with "OTH", so these will be represented as other countries.





Funding type analysis

The next step after data cleaning is to identify the effective sector to invest. As part of this we had done the below:

"Identified the average investment made in all the sectors" – Used this a metric to identify the best suitable funding type for Spark Funds.

Following is the result of the average investment across the preferred funding type of Spark Funds. From the below result, we identified the funding type "Venture" is the best suitable as its average investment amount matches the following Spark Funds criteria "5 to 15 million USD per round of investment".

Funding Type	Average Investment amount per round
Venture	11748949 (approx. 12 million)
Private Equity	73308593 (approx. 73 million)
Angel	958695 (approx. 0.9 million)
Seed	719818 (approx. 0.7 million)





Country and Sector analysis

Once we got the funding type to investment, next analysis is to identify which countries to invest.

We identified the top 9 countries with the highest investment received for funding type "Venture". From the list of countries obtained then we identified the top 3 suitable English speaking countries and the result is below:

Top 1	Top 2	Top 3
USA	Great Britain	India

Next step is to identify which sector to invest. We identified the top 3 sectors in these countries based on the number of investments received and below is the result.

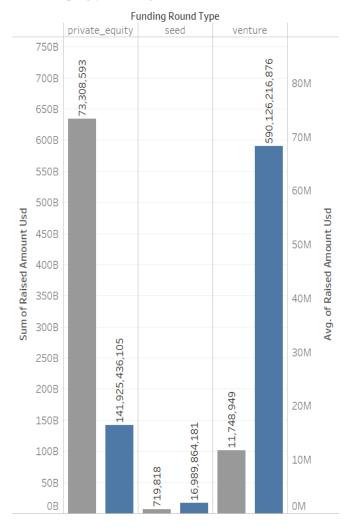
	USA	Great Britain	India
Top Sector	Others	Others	Others
Second Sector	Social, Finance, Analytics, Advertising	Social, Finance, Analytics, Advertising	Social, Finance, Analytics, Advertising
Third Sector	Cleantech / Semiconductors	Cleantech / Semiconductors	News, Search and Messaging





Funding Type Analysis – in detail

Funding Type Analysis



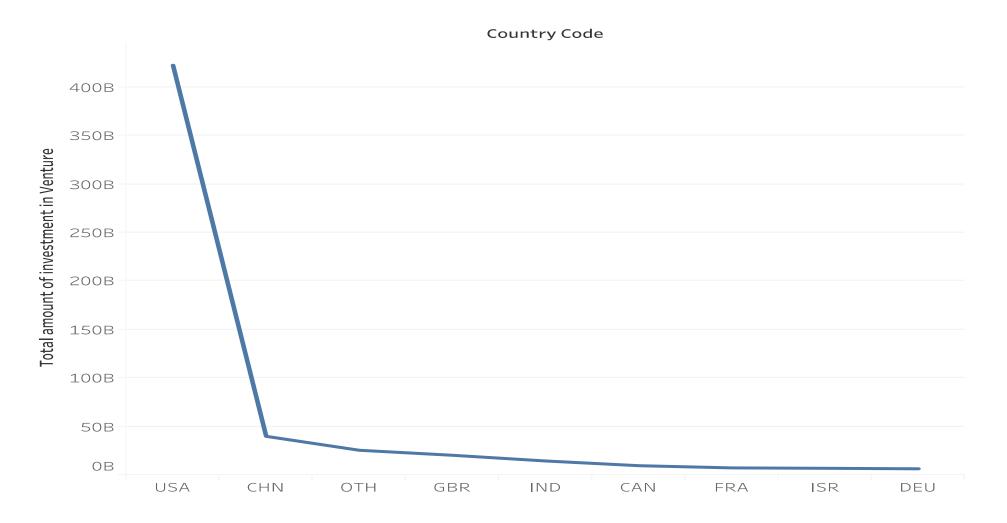
The below plot clearly provides the reason we choose "Venture" as the best suitable funding type for Spark Funds. This is Dual axis chart, blue bar depicted against left axis – sum of raised amount and light black bar is depicted against right axis – avg of raised amount. As Venture Funding type average falls with in 5-15 million we have chosen Venture as the funding type





Country analysis for funding type "Venture"

The below plot provides top 9 countries based on the total investment received for funding type "Venture". From this we can clearly identify the top 3 English speaking countries to invest are "USA", "GBR" and "IND".

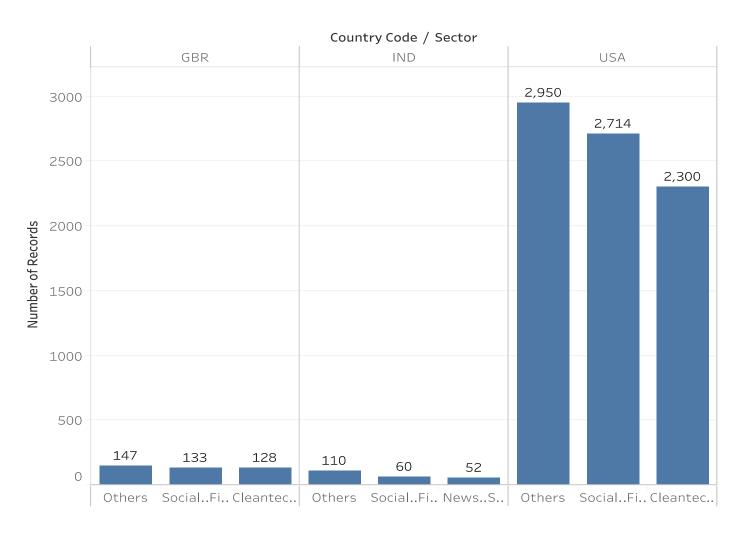






Number of investments in venture

The below plot provides the total number of investments received for funding type "Venture" in each country.







Conclusion

Below is our suggestion of companies to invest for Spark Funds based on the highest investment received.

USA		Great Britain (GBR)		India (IND)	
Company name	Sector	Company name	Sector	Company name	Sector
Virtustream	Others	Electric Cloud	Others	FirstCry.com	Others
SST Inc. (Formerly ShotSpotter)	Social, Finance, Analytics, Advertising	Celltick Technologies	Social, Finance, Analytics, Advertising	Manthan Systems	Social, Finance, Analytics, Advertising