



INVESTMENT CASE STUDY SUBMISSION

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Abstract

We work for Spark Funds, an asset management company that wants to make investments in a few companies. Our CEO wants to understand the global trends in investments so that she can take the investment decisions effectively

Spark Funds has two minor constraints for investments and the strategy is to invest where most investors are investing. This strategy will be achieved by focussing on data analysis of Countries, Sectors and Investment types

Our investment analysis indicates that "Venture Funding" is the best funding type for Spark Funds. In our country analysis, "USA, GBR & IND" were found to be the best in terms of communication and the amount of funding for the chosen investment type. Sector analysis for the above countries & funding type, leads to diverse result set as in slides 10 & 11 of this presentation





Problem solving methodology

Funding Type Analysis • Compare the typical investment amounts in the venture, seed, angel, private equity etc. so that the best funding type for our investment strategy is identified

Country Analysis Identify the countries which have been the most heavily invested in the past. These will be Spark Funds' favourites as well

Sector Analysis • Understand the distribution of investments across the eight main sectors





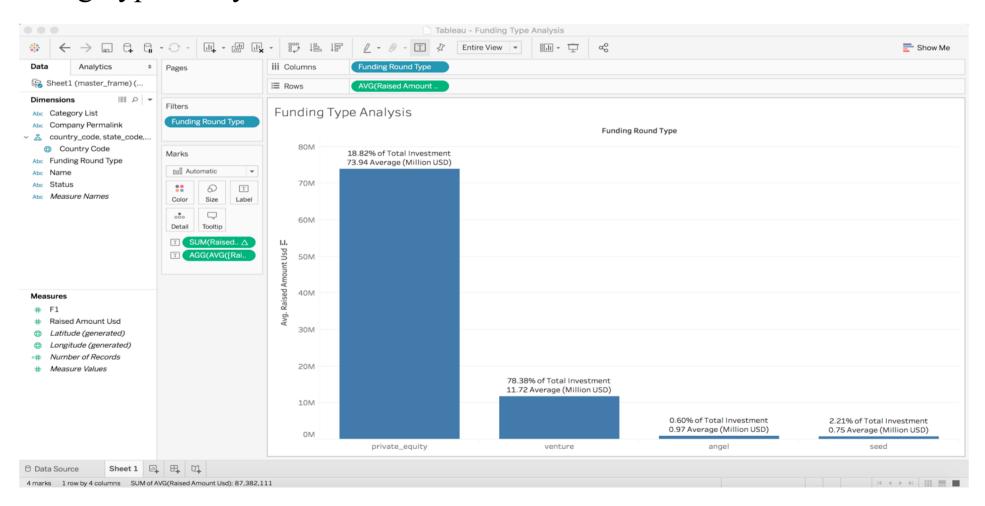
Funding Type Analysis

- The first step towards the objective is to identify the suitable funding type that is in line with the strategy and constraints of Spark Funds
- Our focus was confined to seed/angel/venture & private equity funding types as they range from investments in early-stage start-ups (seed/angel) to companies with relatively higher amount of investment (venture) to much higher investments (private equity)
- Among the above funding types, to find the best one to go with, we calculated the average investment amount for each of the four funding types
- The average investment amount of private equity is 73.94 Million USD which makes it unsuitable for investment by Spark Funds since the approved investment range is only 5 to 15 Million USD
- The average investment amount of angel and seed funding are 0.97 and 0.75 Million USD respectively which are again unsuitable for investment by Spark Funds
- The average investment amount of venture funding is 11.7 Million USD which makes it suitable for Spark Funds
- The above result is visualized in the plot depicted in the next slide





Funding Type Analysis Plot







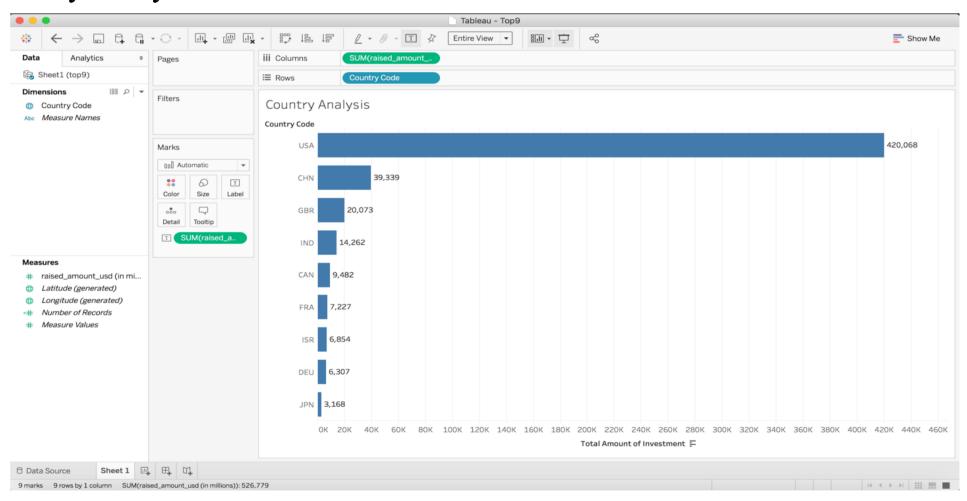
Country Analysis

- Our 2nd step is to identify the countries which are investment friendly both in terms of communication and also with respect to the amount of funding for the chosen investment type
- We identified the top 9 countries which have received the highest total funding across all sectors for the chosen investment type
- Since our objective is to find the countries where English is one of the primary speaking languages, we narrowed down to USA, GBR & IND
- Even though IND has lesser total investment, compared to CHN, it was preferred as CHN is not an English speaking country
- The visualization of the above analysis is in the next slide





Country Analysis Plot







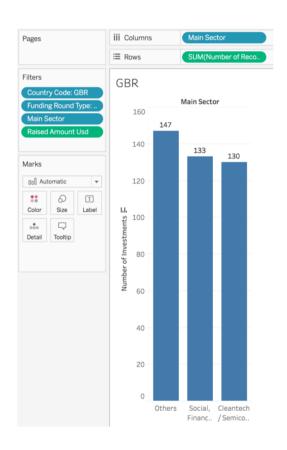
Sector Analysis

- Our 3rd step towards our objective is to identify the sectors and the companies to invest in, after knowing of the funding type and countries that meet our investment objective
- We identified the primary sector of each company and mapped it to the data set having main sector types for each primary sector
- To find out the most heavily invested 'main' sectors in each of the three countries USA, GBR & IND (for funding type 'venture' in investment range of 5-15 M USD), we create separate data sets that contain the investment observation for each country along with the count of investments and the total investment amount for main sectors
- Based on the analysis of the above 3 data sets, we found the top 3 sectors to invest in along with the top 2 companies within each country for investment by Spark Funds
- The visualization for this analysis is in the next slide

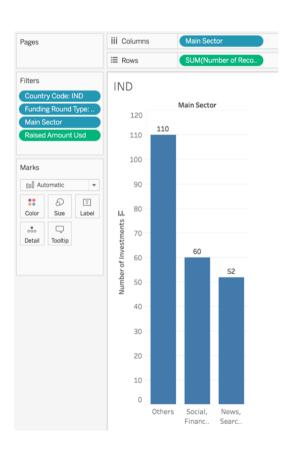


Sector Analysis Plot 1





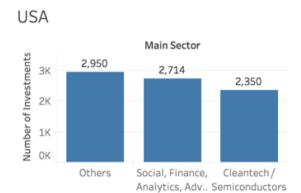


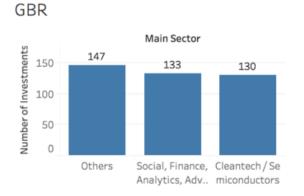






Sector Analysis Plot 2











Conclusions

- The preceding 3 types of analysis leads us to conclude that Spark Funds needs to focus on the 'Venture funding' investment type in USA, GBR & IND in the sectors depicted in the previous slide for each country
- Additionally, we found that the top 2 companies within each country for investment by Spark Funds are:

USA

Sector	Company
Others	Virtustream
Social, Finance, Analytics, Advertising	SST Inc. (Formerly ShotSpotter)

GBR

Sector	Company
Others	Electric Cloud
Social, Finance, Analytics, Advertising	Celltick Technologies

IND

Sector	Company
Others	FirstCry.com
Social, Finance, Analytics, Advertising	Manthan Systems