INVESTMENT CASE STUDY

SUBMISSION

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Abstract

Spark Funds, an asset management company wants to make investments in a few companies and understand the global trends in investments in order to take the investment decisions effectively.

Business objective:

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'.

Constraints:

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.

Strategy laid:

Spark Funds wants to invest where most **other investors are investing**. This pattern is often observed among early stage startup investors.

Methodology

Data Understanding

Exploring the data variables to understand unique keys and importance of variables that can yield results.

Data Preparation

Cleaning and preparing the data to check for errors, changing to lower cases of unique keys to create master_frame.

Analysis

1. Funding type analysis
2. County analysis
3. Sector analysis

Conclusions

Plotting the various results for better visibility and interpreting results from analysis.

Funding type Analysis

•The merged master_frame is analysed for investment type and the below are the results from the analysis.

Variable used: funding_round_type, raised_amount_usd

Analysis:

•Results shows that 'venture' is the most widely adopted investment type among companies. It occupies nearly 48% of overall funding type.

•The second most popular investment type among companies is 'seed' with 26% of overall funding type.

•The average funding amount for seed investment type is 719892.50 USD which is 1.7% of the total funding amount which is on lower edge. The fact that seed can't be ignored is because of it's popularity among investors in market.

Conclusions:

•The average funding amount for venture type is approx 11 millions USD which is a very representative value of the investment amount quoted by Spark Funds amongst other funding types.

Country Analysis

•The master_frame data is now filtered for only venture investment type as concluded from analysis.

•The new filtered data called df2 is now analysed for top9 countries with the highest funding amount.

Variable analysed: country_code, raised_amount_usd

Analysis:

•Results shows that the top 3 countries with highest funding amount include USA, China and United Kingdom. External data shows that China is one of the non-english speaking countries.

•Since Spark Funds is only interested in english speaking countries, China is ruled out , making India the third largest English speaking funded country.

•USA occupies approx 42% of the total market funded share whereas United Kingdom occupies 2% of the market share.

Conclusions:

•USA is ranked top english speaking investment funded company followed by United kingdom and India.

•China is the largest non english speaking country with highest funding amount.

Sector wise Analysis

•Mapping file has data that represents 8 major tertiary sectors where investments are carried out along with the primary sectors associated to it.

•The master_frame is mapped for its main sectors from mapping file to its corresponding primary sector.

•3 subsets of master_frame data are created with filters on country_code, investment type = venture and raised_amount_usd in range 5M to 15M USD.

Variables analysed: category_list, primary, main_sector, country_code, raised_amount_usd
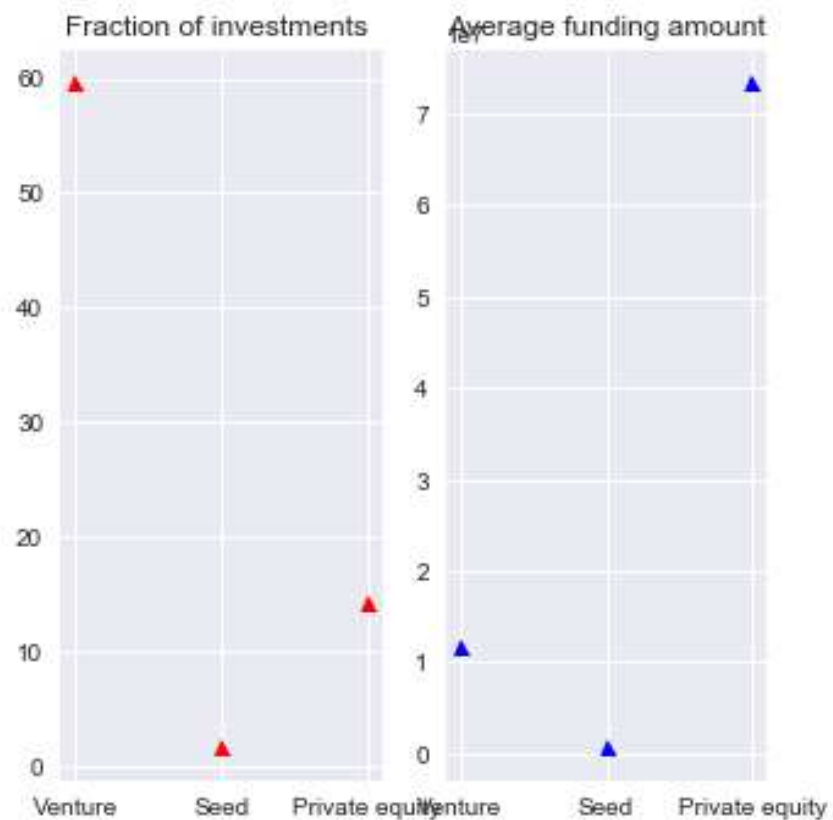
Analysis:

•Analysis shows that USA has the maximum amount of investments with venture investment type and funding amount within the specified range. This is almost double the investment count of United Kingdom and almost four times of India.

•The highest number of investments are observed in 'Others' sector of USA and UK. For USA this is 24% of its total investment count and for UK it's 22.7%

•19% of the total investment count goes to 'Cleantech / Semiconductors' sector for USA making it the second highest sector of investment.

•United Kingdom's second highest investment area is also 'Cleantech / Semiconductors' which is 20% of its total investment count.

•Social, Finance, Analytics, Advertising is the third largest sector of investment for UK and USA.

•For India, the highest number of investments are also in 'Others' sector which is 33% of its total investment count. 15% of its investment count is in News, Search and Messaging sector and Entertainment occupies just 10% of the total.

Conclusions:

•Virtustram and Biodesix are the companies most invested in USA market.

•Electric Cloud and EUSA Pharma are the companies most invested in UK market.

•FirstCry.com and GupShup are the companies most invested in India.
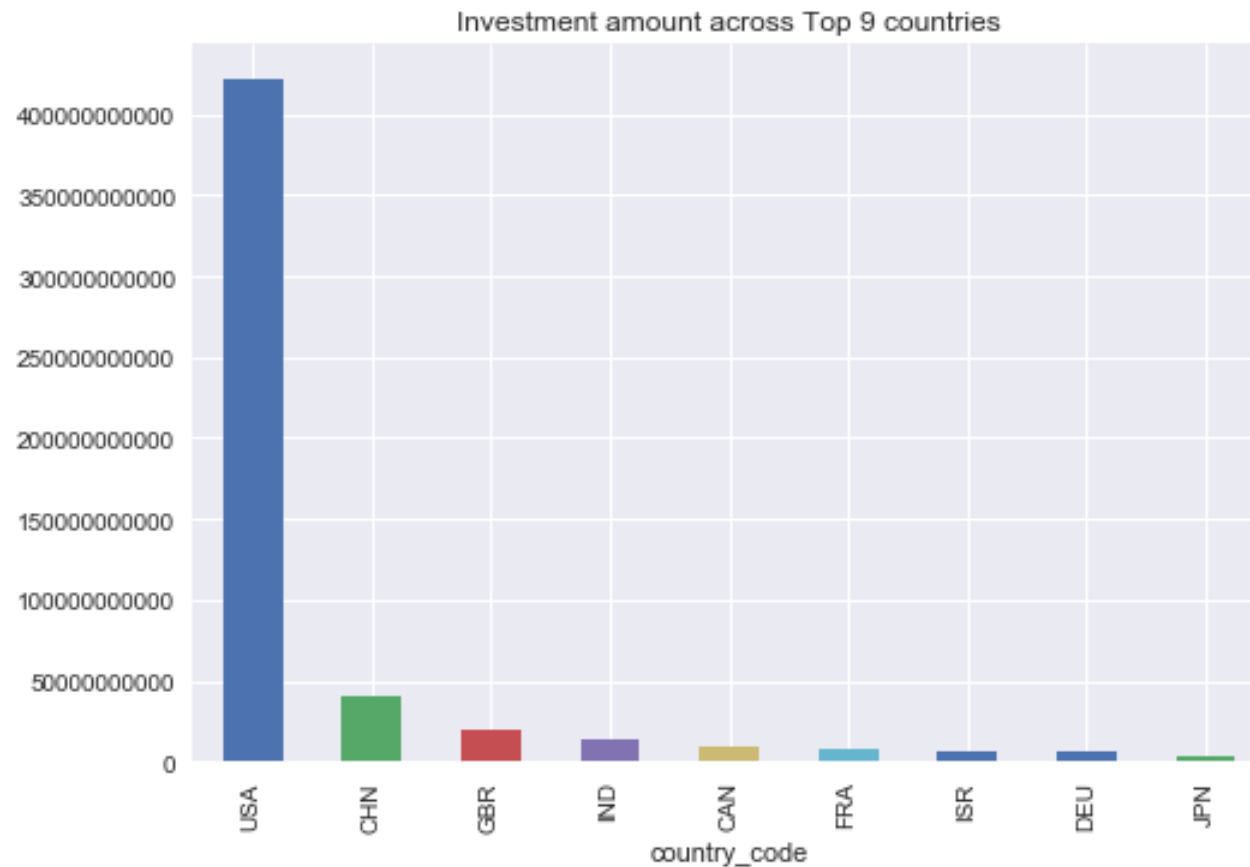
Results

Plot 1

The graph on the left shows the Fraction of investments and average funding amount (USD) across venture, seed and private equity .

The fraction of investment is nearly 60% of the total for venture making it the most desirable for investment for Spark Funds based on the funding strategy depicted in red.

The average funding amount for venture is approx 11 million USD which falls within their investment budget unlike private equity and seed depicted in blue.

Results

Plot 2

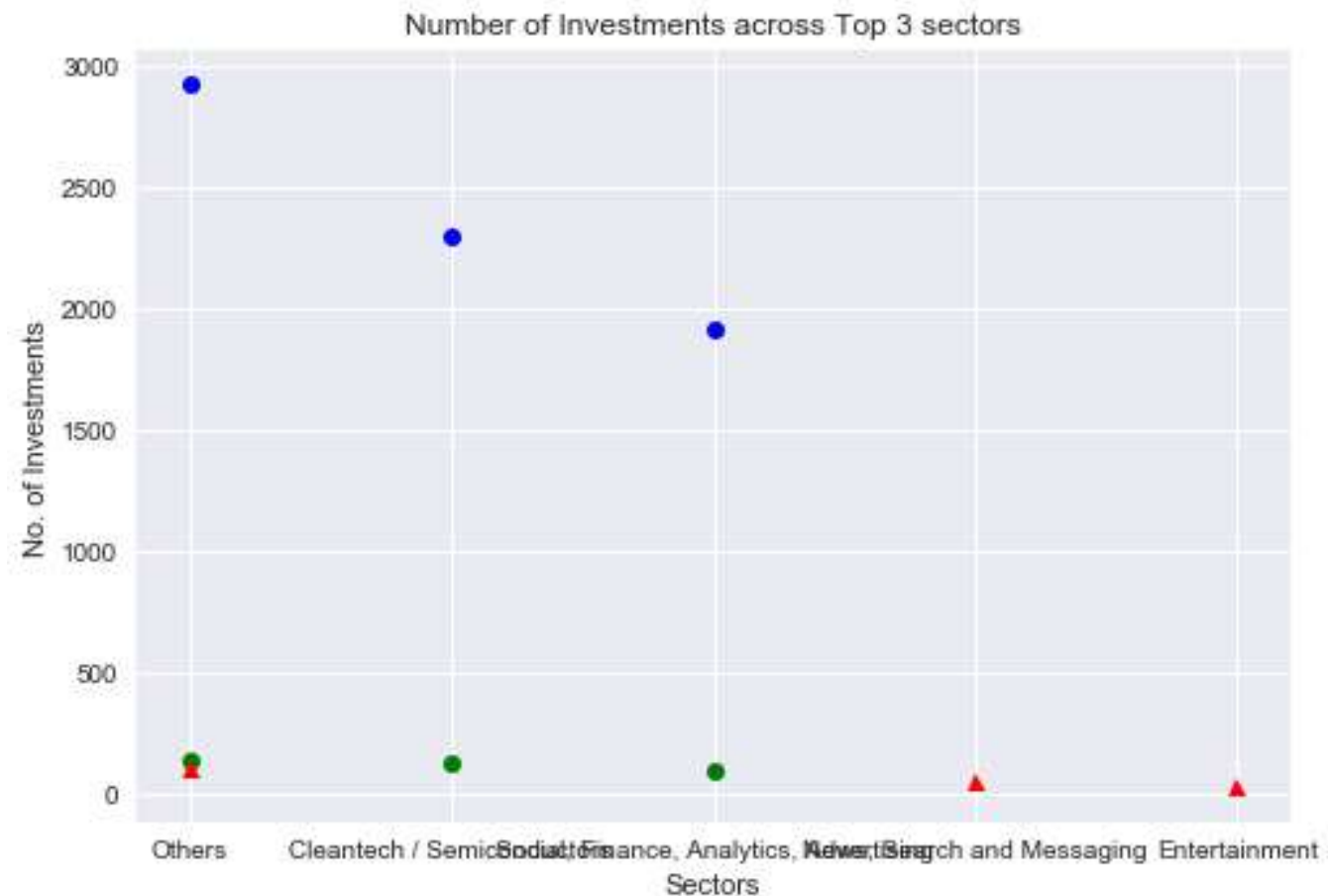The graph depicts the TOP 9 countries against the total amount of funding for venture.

Clearly, USA tops the chart with the highest funding received. It is also an english speaking country.

The lowest funding amount received is by Japan.

Results

Plot 3

Number of Investments across Top 3 sectors

The plot show the top 3 investment sectors of USA, UK and India for venture funding type.

The blue dots represents USA , green represents UK and red represents India.

As shown, Others sector tops for all the 3 countries for investment. Cleantech / Semiconductors sectors being the second highest for USA and UK.

Social, Finance, Analytics, Advertising is the third highest for both USA and UK.

Conclusions

•Given the constraints, Spark Funds can consider the following for investment decisions:

•The most suitable investment type is venture as per popularity among other investers.

•The average funding amount is 11 million USD for venture which is falls in the investment budget per round.

•USA, United Kingdom and India are the english speaking countries where most investers are investing in venture type and can be considered by Spark Funds.

•The sectors which are highly invested in include 'Others' for all the 3 countries for venture type given the budget constraint.

•Other sectors worth considering for USA and UK markets are 'Cleantech / Semiconductors' and 'Social, Finance, Analytics, Advertising'.

•For Indian markets, it's advisable to invest in 'News, Search and Messaging' and 'Entertainment' with the given constraints.