

# INVESTMENT CASE STUDY

## SUBMISSION

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## Abstract

Spark Funds is an asset management company, and it wants to invest between 5 to 15 million USD on only English speaking countries. Without being much aggressive, they want to invest where most investors are investing, and accordingly they want to choose their investment type.

The primary objective is to identify the best sectors for investment, countries where maximum investments are happening and choosing a suitable investment type among venture, seed, angel and private equity type.

3 datasets are available for analysing the requirements of Spark Funds. Companies file contains the data about the various companies, where they are located etc., Rounds2 file contains the investment details made on various companies and mapping data file classifies various company categories into broader sectors.

# Spark Funds Investment Analysis

## Data Loading

First step to approach to the solution is loading the companies and rounds2 data in R. Loading is done in such a way so as to ensure blank data are loaded as NA.

Loading round2 as dataframe.

Loading companies as dataframe.

## Data Preparation

Preparing the data further for analysis by merging the rounds2 and companies data loaded in earlier stage.

Merging rounds2 and companies to get master\_frame

Creating dataframe of chosen investment type

Creating dataframe of top 9 countries based on total investment received.

Merging with mapping sheet to get primary sector

Creating D1, D2 and D3 dataframe based on country code etc.

## Data Cleaning

The data contains many invalid values, NA values which can lead to erroneous analysis. So the most important step of data cleaning is performed.

Various Data Cleaning operations performed :

- Replacing NA funding raised amount by 0 to get the proper aggregate values.
- Replacing 0 in mapping data with "na". Data was invalid in this case. For Ex: Energy Ma0gement should be Energy Management
- Removing blank data from mapping, since this is not required.

## Data Analysis

Analyzing the data based on the criteria of investment :

1. Where most investors are investing.
2. English speaking countries where most investment is happening
3. Best sectors for investment.

## Plotting

Plotting in Tableau with the data prepared for graphical analysis based on investment type, top 3 countries and top 3 sectors corresponding to each of the top 3 countries.

# Investment Type Analysis

## Investment Constraints

- Investment between 5 to 15 million USD
- Investment only on English speaking countries
- Investment where maximum investors are investing

Considering the above constraints, among the few selected investment types, we consider **Venture** being the best suited for the organization.

Average funding amount of Venture is \$10,634,054, which is exactly in the range of our investment

Why Venture ?

Number of investments in Venture is most (amounting to 55494 )among all other chosen investment types.

# Investment Type Analysis

## **Country Analysis**

Top English speaking countries where maximum investments are done :

- United States
- United Kingdom
- India

## **Sector Analysis**

Based on each of the above countries, we have selected the top sectors where maximum investments are being made. Also we have extracted some of the companies which have received the maximum investments in each of these sectors.

# Investment Type Analysis

## Sector Analysis based on chosen countries

**USA**

Top Sector : Others

Second best sector : Social,  
Finance, Analytics,  
Advertising

Third best sector : Cleantech /  
Semiconductors

Company which received  
maximum investment :  
virtustream

**GBR**

Top Sector : Others

Second best sector : Social,  
Finance, Analytics,  
Advertising

Third best sector : Cleantech /  
Semiconductors

Company which received  
maximum investment :  
electric-cloud

**IND**

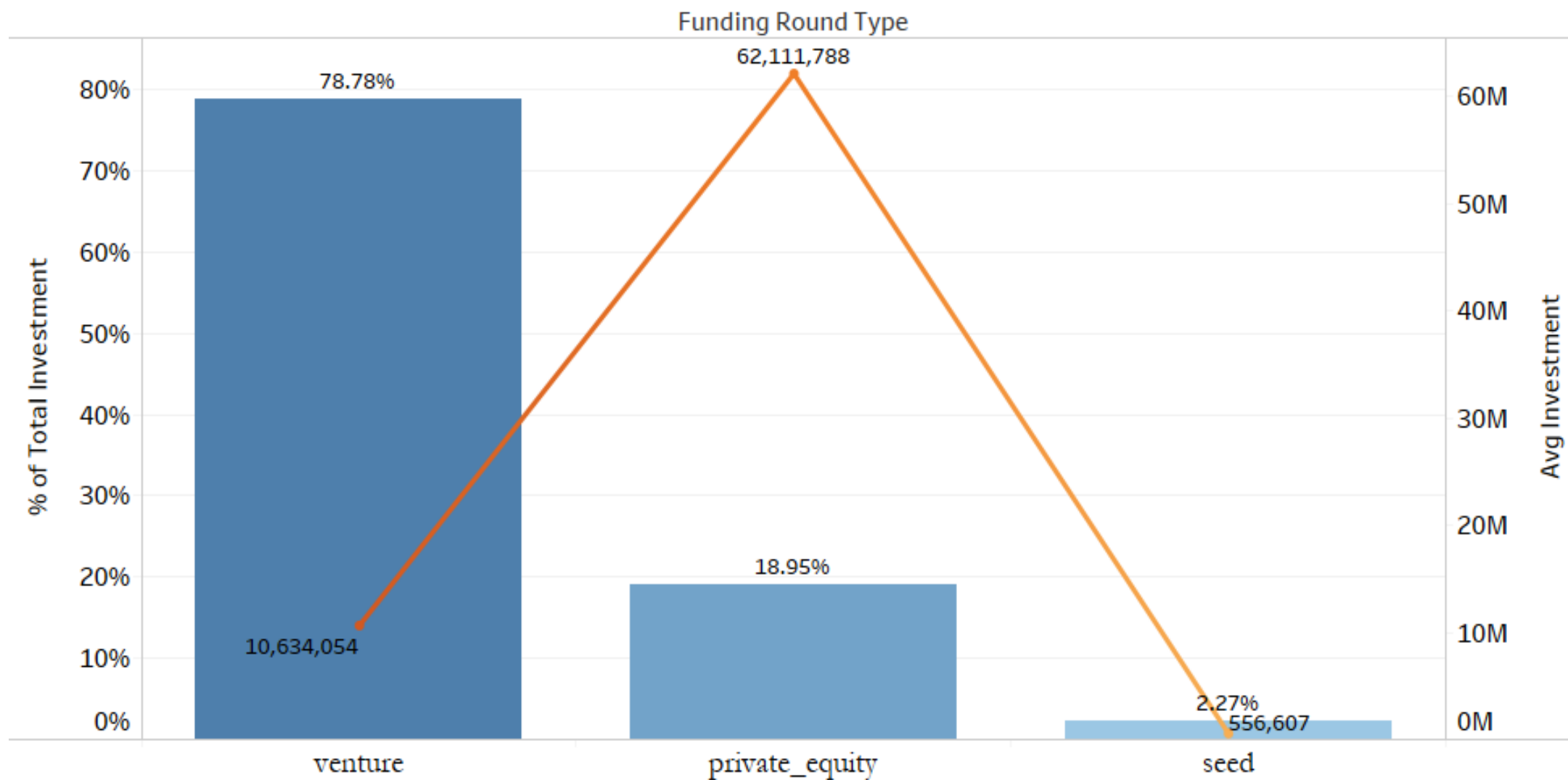
Top Sector : Others

Second best sector : Social,  
Finance, Analytics,  
Advertising

Third best sector : News,  
Search and Messaging

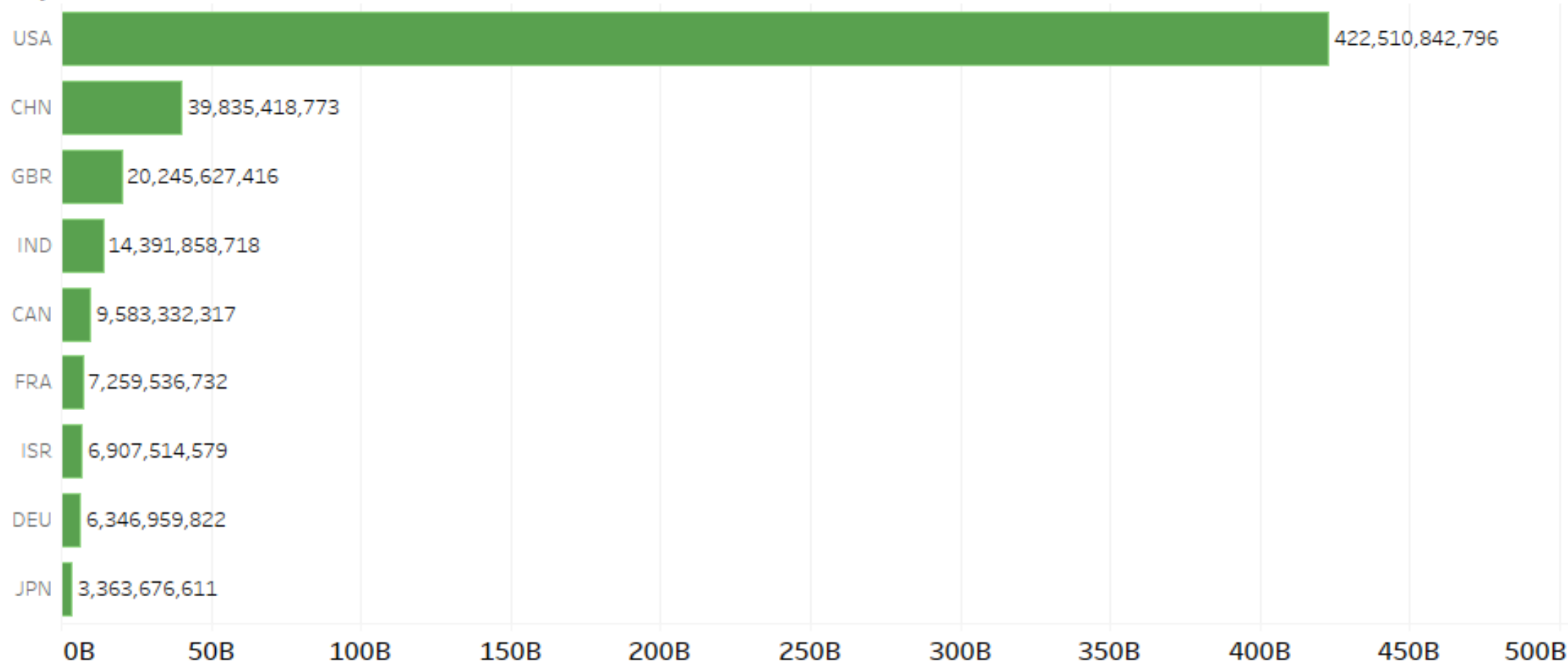
Company which received  
maximum investment :  
firstcry-com

## Top Funding Type by Investment



## Top 9 Countries by Investment

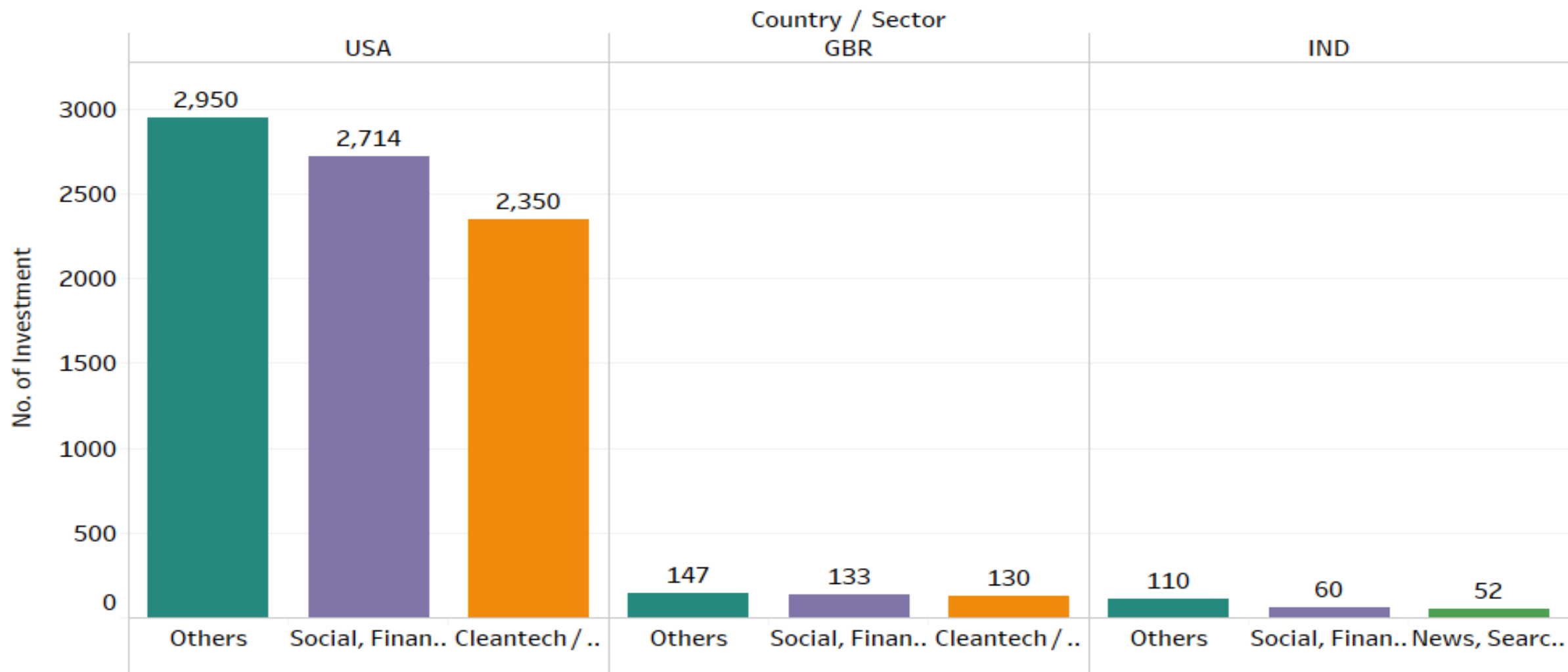
Country



Total Investment



## Top 3 Countries - Sectors by No. of Investments



## Conclusions

Based on all the previous analysis performed in the datasets, Spark Funds can choose to invest in Venture type of investments, preferably in USA, United Kingdom or India.

The primary sectors of focus for investments should be

- Others
- Social, Finance, Analytics, Advertising
- Cleantech / Semiconductors for USA and United Kingdom
- News, Search and Messaging for India

**Thank You**