



INVESTMENT ASSIGNMENT SUBMISSION

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Investment in the Global Trends

Spark Funds wants to make investments in the top companies which are in the top sectors on a global trend.

This pattern is often observed among early stage start-up investors. Their 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'.

The main goal is divided into 3 sub goals to achieve the target. The first sub goal is for investment type analysis where we find the best investment type like venture, seed, angel, spark funds etc. The second sub goal is of country analysis where we have to identify the countries which have been the most heavily invested in the past. The third sub goal is to find the best sector and understanding the distribution of investments across the eight main sectors.

It is hoped that this analysis will help in finding the best sector in the best country to invest the money in.





Methodology

Investment
Type Analysis

- Comparing the typical investment amounts in the venture, seed, angel, private equity etc.
- \bullet Finding the average and checking if it lies between the range of the investment i.e. 5 15 Million Dollars.

Country Analysis

- Finding all the English Speaking Countries.
- Identifying the countries which have been the most heavily invested in the past.

Sector Analysis

- Understanding the distribution of investments across the eight main sectors.
- Finding the top Sectors which attracts the investors the most.





Investment Type Analysis

Funding Round Type	Raised Amount USD
Angel	\$1,375,482.62
Convertible note	\$2,426,331.75
Debt financing	\$11,910,559.00
Equity crowdfunding	\$425,134.66
Grant	\$6,066,692.00
Non equity assistance	\$931,933.31
Post ipo debt	\$47,050,000.00
Post ipo equity	\$91,505,552.00
Private equity	\$69,688,640.00
Product crowdfunding	\$1,086,440.25
Secondary market	\$112,500,000.00
Seed	\$668,062.94
Undisclosed	\$14,742,475.00
Venture	\$10,057,343.00

- These are the average values of all the funding types across all the countries.
- The main funding types are Angel, Seed,
 Private equity and Venture.
- We used the mean() function to find the mean values after grouping the values of the four Funding types.
- As you can see that **Venture** is the only Funding Type which lies between the range of 5 – 15 million Dollars.
- Therefore **Venture** is the Funding Type in which The investors are interested in.





Country Analysis

Country Code	Total Amount Invested
USA	\$18,495,852,544.00
CHN	\$2,174,556,672.00
GBR	\$1,075,263,488.00
DEU	\$544,395,904.00
IND	\$481,084,512.00
FRA	\$463,371,392.00
CAN	\$439,258,688.00
IRL	\$276,321,856.00
CHE	\$186,052,336.00

- First We have to find the countries where English is the official language
- After that we have to cross reference it with the master_frame to segregate the English speaking countries and then sort it according to the total amount invested in the particular countries and then get the top 9 countries out of it
- As you can see the top 9 countries in the table with their total amount invested.
- From this we can get the top 3 countries with the highest investment amount i.e **USA**, **GBR**(**UK**), **IND**(**India**).





Sector Analysis

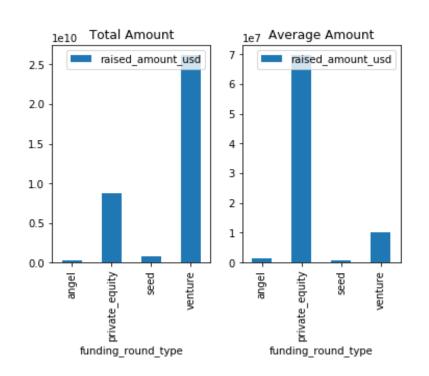
- We have to create three separate data frames D1, D2 and D3 for each of the three countries containing the observations of funding type Venture falling within the 5-15 million USD range.
- From these Data Frames D1, D2, D3 we can find the top sectors based on the count of investments and the amount of investment in that particular sector and country.
- For the top sector count-wise, the company which received the highest investment in USA is **Bigfix**, in UK is **Bathrooms-com**, in India is **Bestylish-com**.
- For the second-best sector count-wise, the company which received the highest investment in USA is **Beryllium**, in UK is **Atraverda**, in India is **Authorstream**.





Plot 1 – The Best Funding Type

Total Amount –



Funding Round Type	Raised Amount USD
Angel	\$276,472,032.00
Private equity	\$8,711,079,936.00
Seed	\$799,671,360.00
Venture	\$26,189,320,192.00

Average Amount -

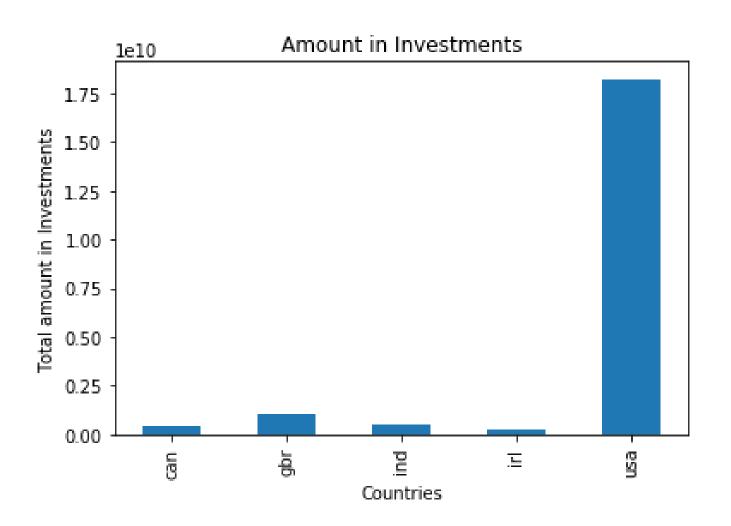
Funding Round Type	Raised Amount USD
Angel	\$1,375,482.62
Private equity	\$69,688,640.00
Seed	\$668,062.94
Venture	\$10,057,343.00

Result: The Best Funding Type is **Venture**





Plot 2 – Total amount in investments in top 3 Countries

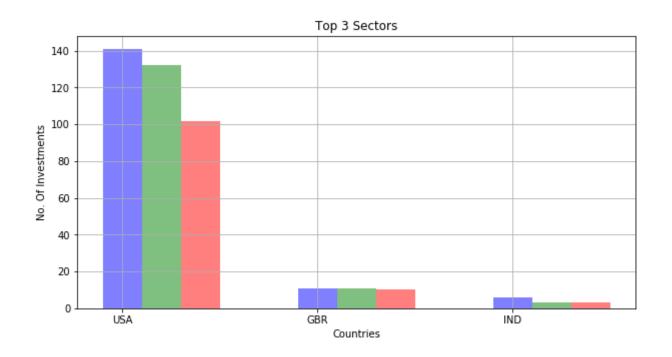


As you can see that **USA** is the top country where the amount invested is \$18,220,406,784.00, followed by GBR which is the **UK** and the amount is \$1,075,013,504.00 and the last in the top 3 countries is **IND** which is India with a total amount of \$481,084,512.00.





Plot 3 – Top Sectors



USA -> Blue(Others), Green(Cleantech / Semiconductors), Red(Social, Finance, Analytics, Advertising)

GBR(United Kingdom) -> Blue(Others), Green(Cleantech / Semiconductors), Red(Social, Finance, Analytics, Advertising)

IND(India) -> Blue(Others), Green(Social, Finance, Analytics, Advertising), Red(Entertainment)





Conclusion

With the above results and the sub goals we can conclude that the best investment type is Venture, and the top 3 countries in which the investors should be interested in are USA, United Kingdom and India. The best sector is obviously others as in all the three countries the number of investments and the amount of investments are very good and are also lying within the range of the investing amount decided by the Spark Funds.

Top 3 Countries – USA, UK, India **Top Sector** - Others