

INVESTMENT CASE STUDY

SUBMISSION

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Investment Analysis for Spark Foundations

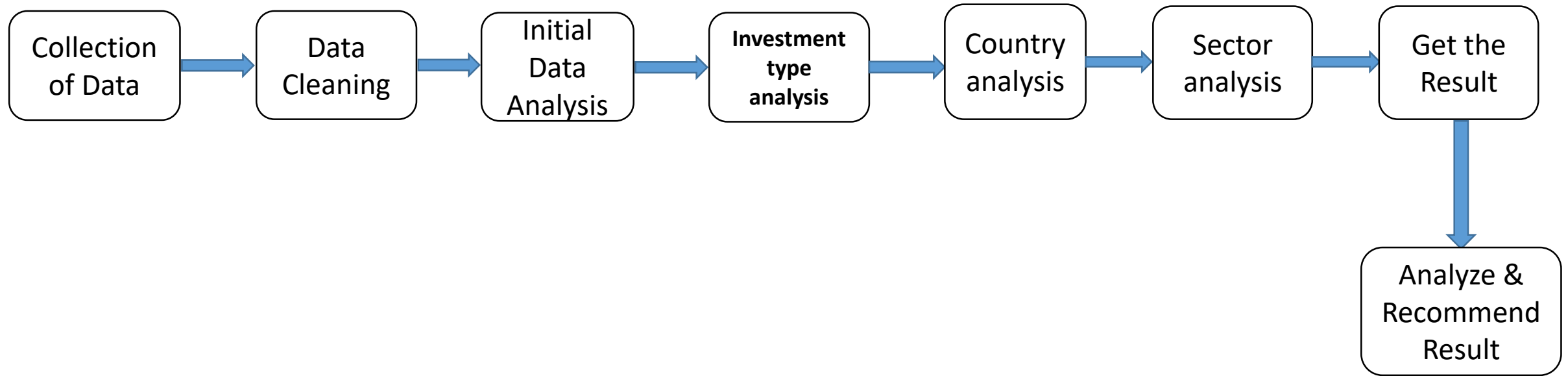
This study will help to understand the global trends in investments so that Spark Foundations can take the investment decisions effectively.

Business and Data Understanding

Spark Funds has two minor constraints for investments:

- 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 it would invest in.

Problem solving methodology



Data Analysis

Funding/ Investment Type Analysis

Comparing the typical investment amounts in the venture, seed, angel, private equity etc. to come to a decision on the type that is best suited for Spark Foundation.

- Data is not distributed equally. The data is right skewed.
- Based on the most representative value (median) we see the average values as –
- The table clearly shows that **Venture** type would be the most suitable type for investment for spark foundations.

raised_amount_usd	
funding_round_type	
angel	400000.0
private_equity	20000000.0
seed	275000.0
venture	5000000.0

Country Analysis

Identifying the countries which have been the most heavily invested in the past. Also as English is the preferred language of communication we will be concentrating only those countries where English is the official language.

As we know that the best suited investment type for Spark in Venture, we get the top 9 country –

country_code	
USA	4.225108e+11
CHN	3.983542e+10
GBR	2.024563e+10
IND	1.439186e+10
CAN	9.583332e+09
FRA	7.259537e+09
ISR	6.907515e+09
DEU	6.346960e+09
JPN	3.363677e+09

So from the above figure, we can conclude that the top 3 countries for Spark foundation to consider investing would be USA, GBR and IND.

Sector Analysis

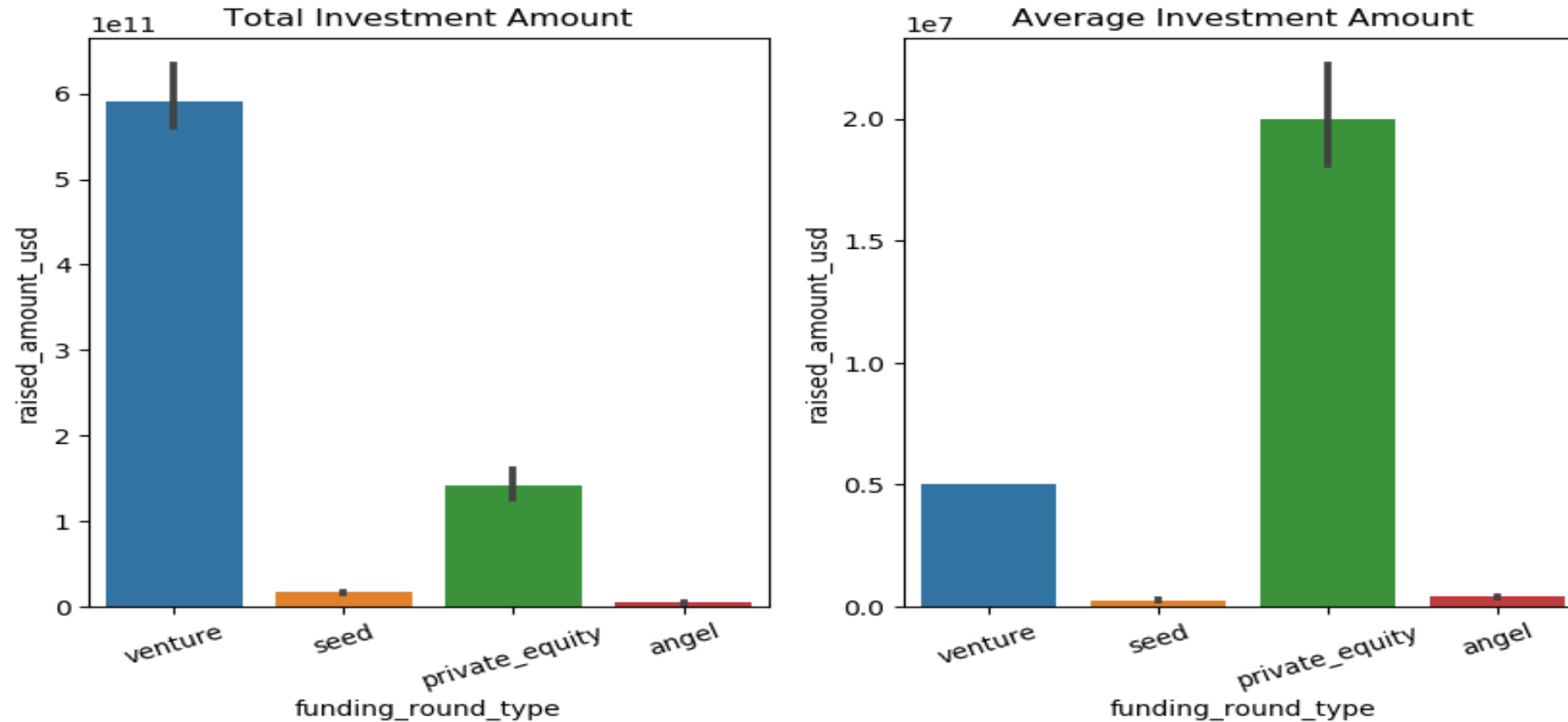
Understanding the distribution of investments across the eight main sectors.

Here we see the top sectors in the USA, GBR and IND which have been heavily invested on.

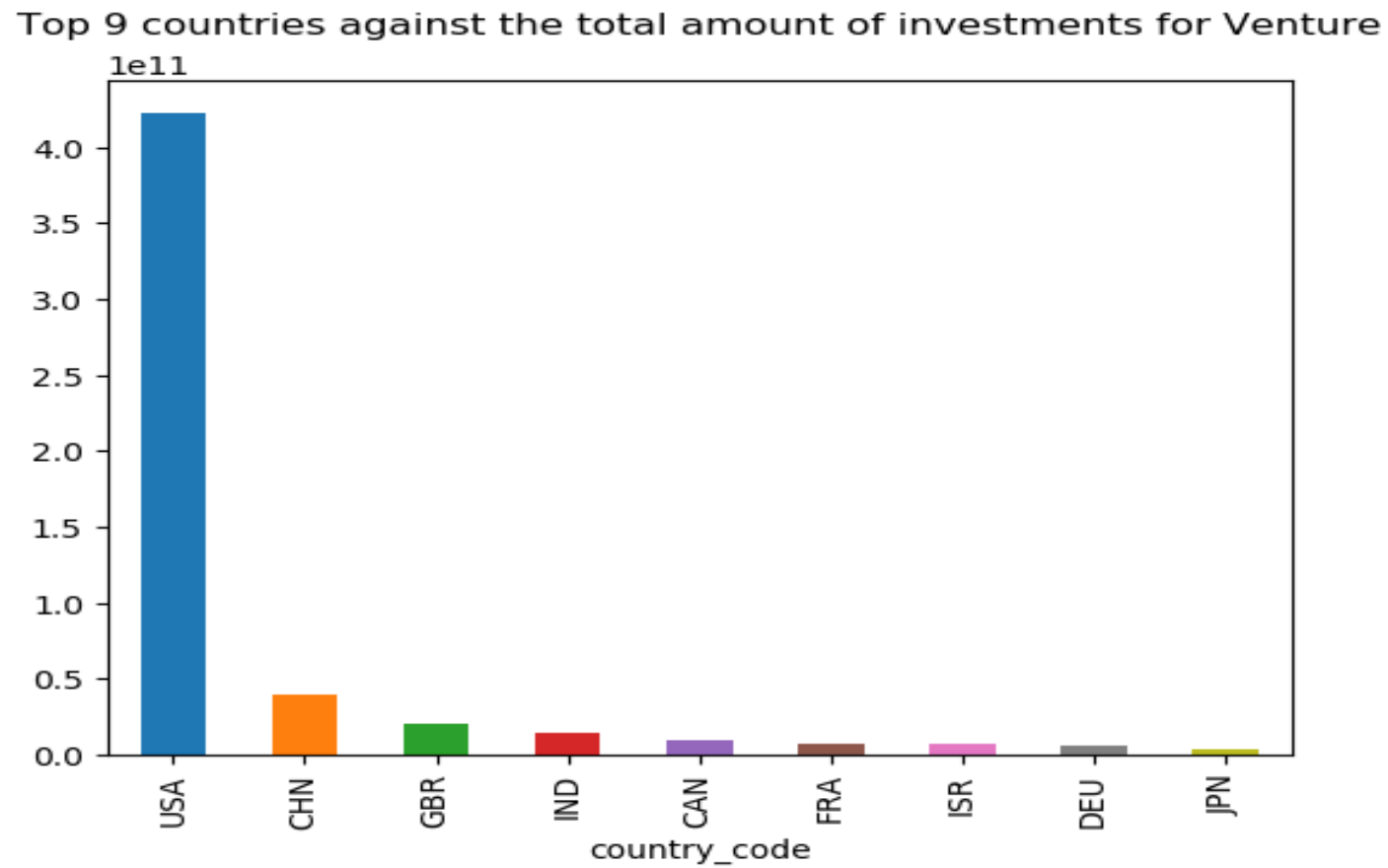
The numbers below would give us a clear picture –

country_code	sector	count	sum	country_code	sector	count	sum	country_code	sector	count	sum
GBR	Automotive & Sports	16	1.670516e+08	IND	Automotive & Sports	13	1.369000e+08	USA	Automotive & Sports	167	1.454104e+09
	Cleantech / Semiconductors	130	1.163990e+09		Cleantech / Semiconductors	20	1.653800e+08		Cleantech / Semiconductors	2350	2.163343e+10
	Entertainment	56	4.827847e+08		Entertainment	33	2.808300e+08		Entertainment	591	5.099198e+09
	Health	24	2.145375e+08		Health	19	1.677400e+08		Health	909	8.211859e+09
	Manufacturing	42	3.619403e+08		Manufacturing	21	2.009000e+08		Manufacturing	799	7.258553e+09
	News, Search and Messaging	73	6.157462e+08		News, Search and Messaging	52	4.338345e+08		News, Search and Messaging	1583	1.397157e+10
	Others	147	1.283624e+09		Others	110	1.013410e+09		Others	2950	2.632101e+10
	Social, Finance, Analytics, Advertising	133	1.089404e+09		Social, Finance, Analytics, Advertising	60	5.505496e+08		Social, Finance, Analytics, Advertising	2714	2.380738e+10

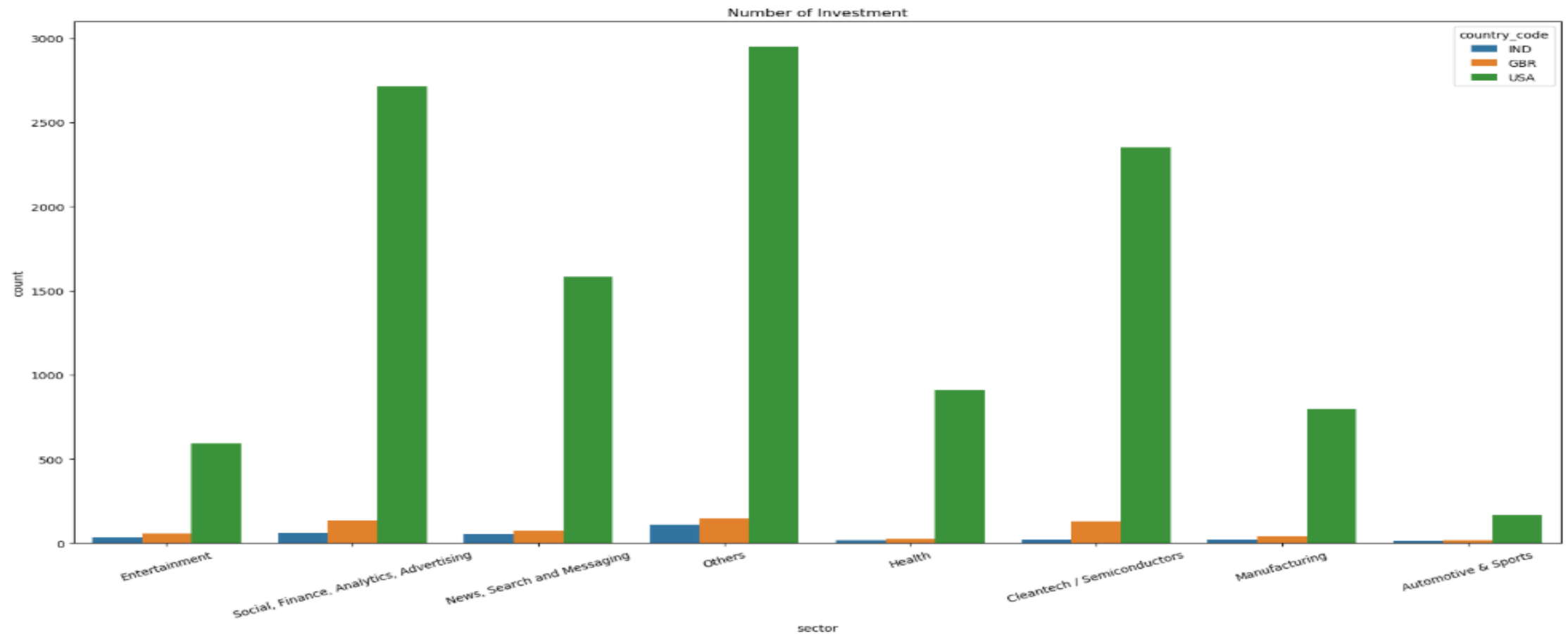
A plot showing the fraction of total investments (globally) in venture, seed, and private equity, and the average amount of investment in each funding type. This chart should make it clear that a certain funding type (FT) is best suited for Spark Funds.



A plot showing the top 9 countries against the total amount of investments of funding type FT.



A plot showing the number of investments in the top 3 sectors of the top 3 countries on one chart (for the chosen investment type FT).



Conclusions

As seen in the above analysis and charts -

USA is found to be the country which has been heavily invested in.

Also the top 3 sectors with the following data –

1. Others
2. Social, Finance, Analytics, Advertising
3. Cleantech/Semiconductors.

		count	sum
country_code	sector		
USA	Automotive & Sports	167	1.454104e+09
	Cleantech / Semiconductors	2350	2.163343e+10
	Entertainment	591	5.099198e+09
	Health	909	8.211859e+09
	Manufacturing	799	7.258553e+09
	News, Search and Messaging	1583	1.397157e+10
	Others	2950	2.632101e+10
	Social, Finance, Analytics, Advertising	2714	2.380738e+10