

INVESTMENT ASSIGNMENT SUBMISSION

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Abstract:

The Spark Funds wants to understand the pattern in investments so that the investment decisions can be taken effectively and make investments in a few companies.

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'.

Business Understanding:

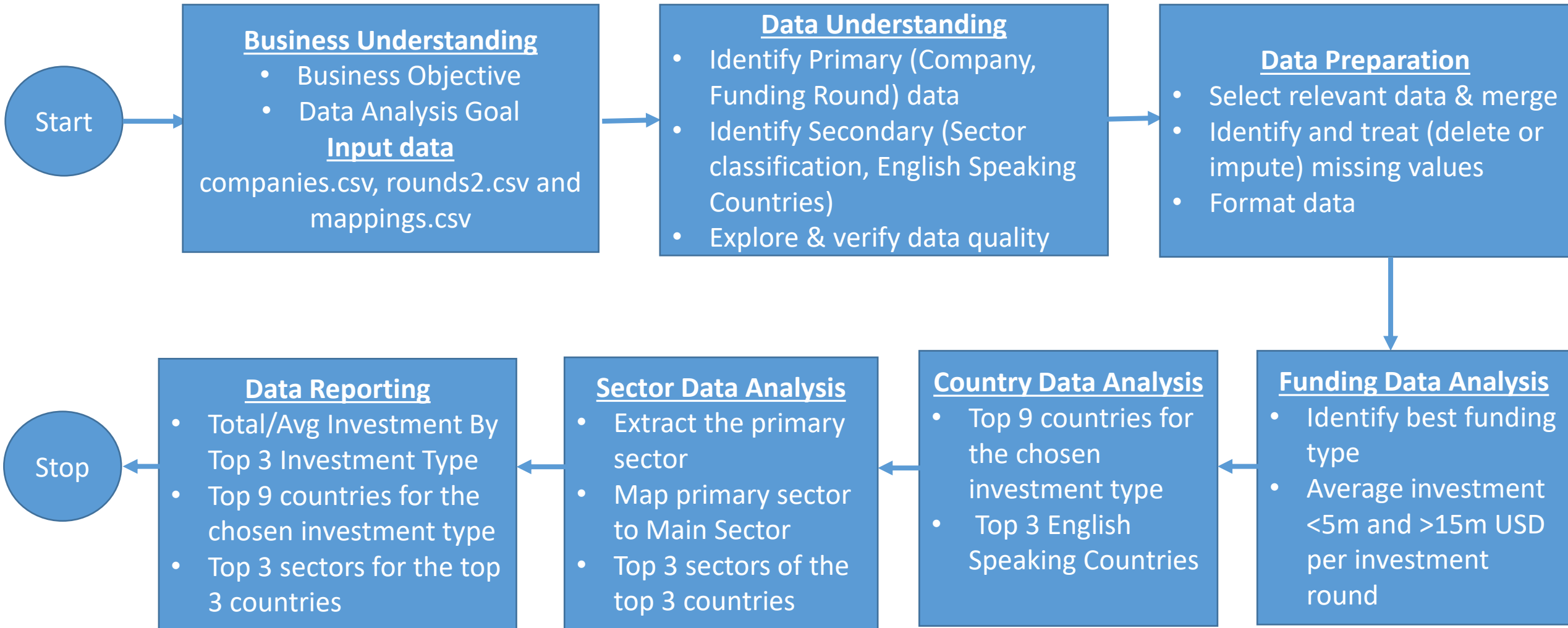
Strategy is to invest where most other investors are investing.

Spark Funds has two minor restrictions for investments:

- Invest between 5 to 15 million USD per round of investment.
- Invest only in English speaking countries for the ease of communication with the companies it would invest in.

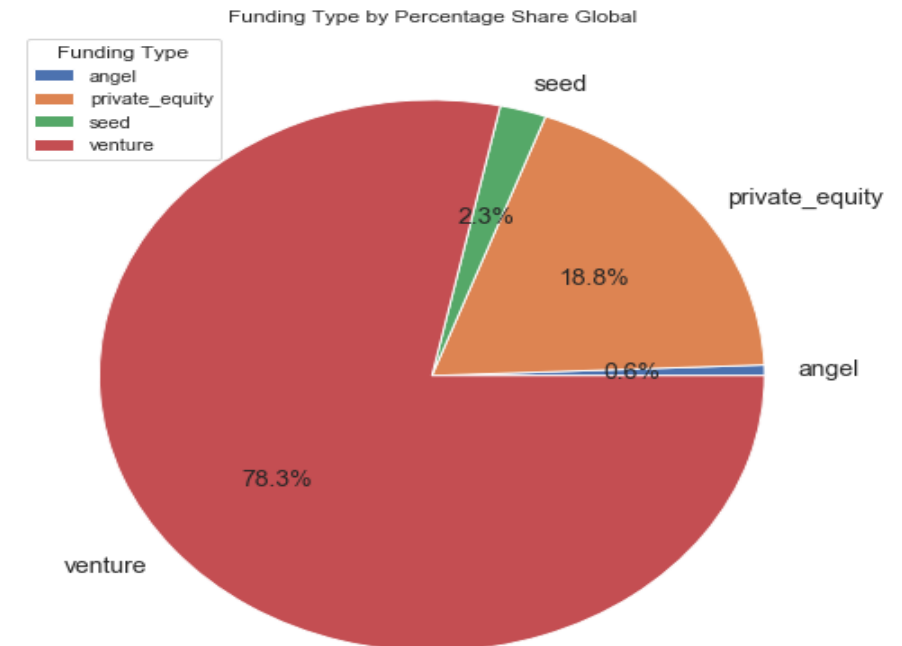
Data Understanding:

- Company details : Basic details of companies with Unique company Id, Company Name, Website URL, Category name(s), Operational status, Country etc.
- Funding round details: Important details Unique company Id, Unique funding round ID, Type of funding(venture, angel, private equity), Money raised in funding (USD) etc.
- Sector Classification: This file maps the numerous category names in the companies table (such 3D printing, aerospace, agriculture, etc.) to eight broad sector names.



- Spark Funds wants to invest between 5 to 15 million USD per investment round
- Table shows average funding amount of 4 funding types venture, seed, angel & private equity
- private_equity has very high average value of raised_amount_usd which is way above 15m USD limit while angel and seed are way below 5m USD limit
- Venture funding type looks most suitable as its average funding amount is between 5m to 15m USD.

funding_round_type	Initial value (USD)	After imputating null with Median (USD)
Venture	11748949.13	11227199.21
Angel	958694.47	868654.1
Seed	719818	655354.88
private_equity	73308593.03	67502962.62

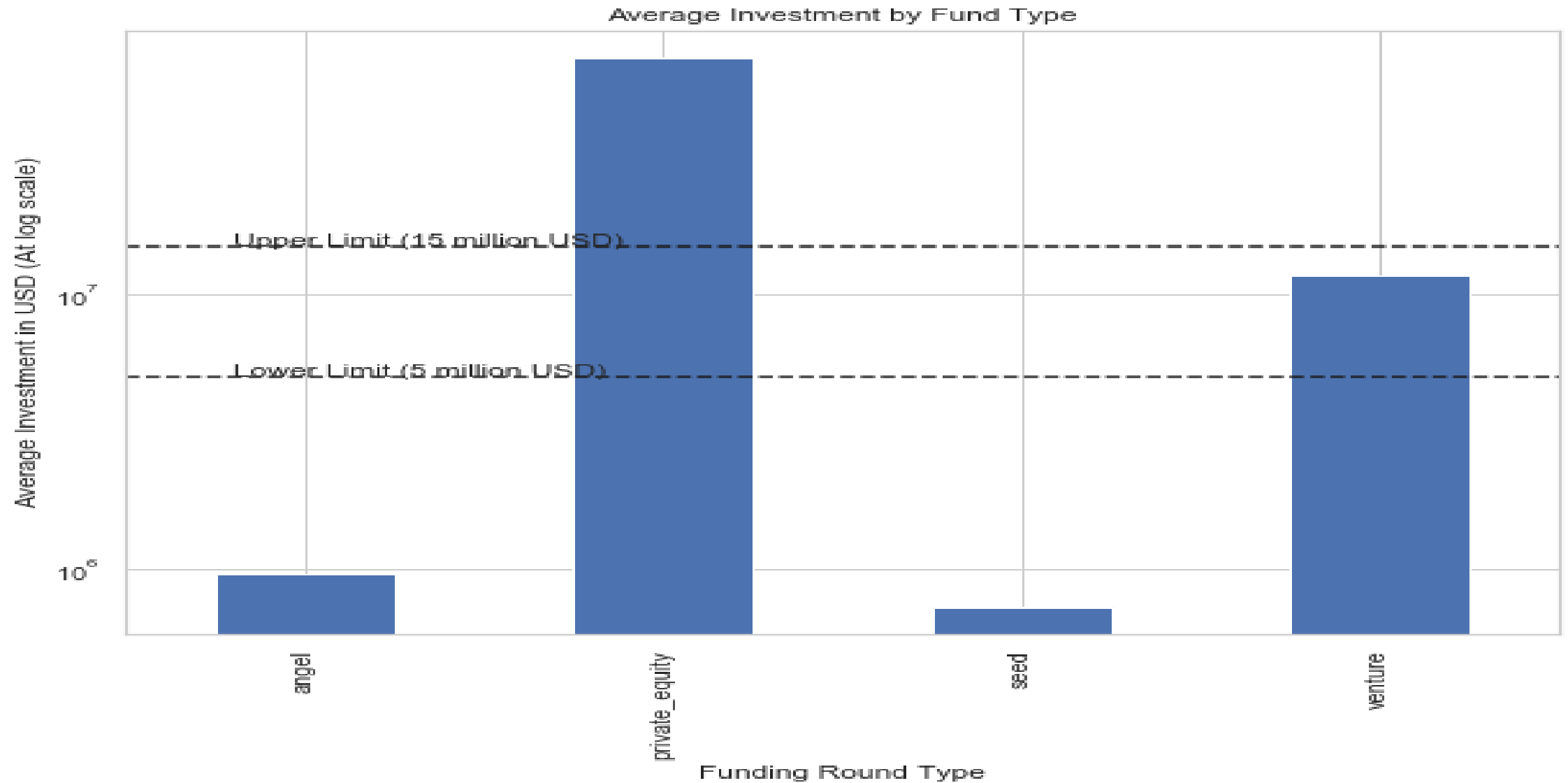


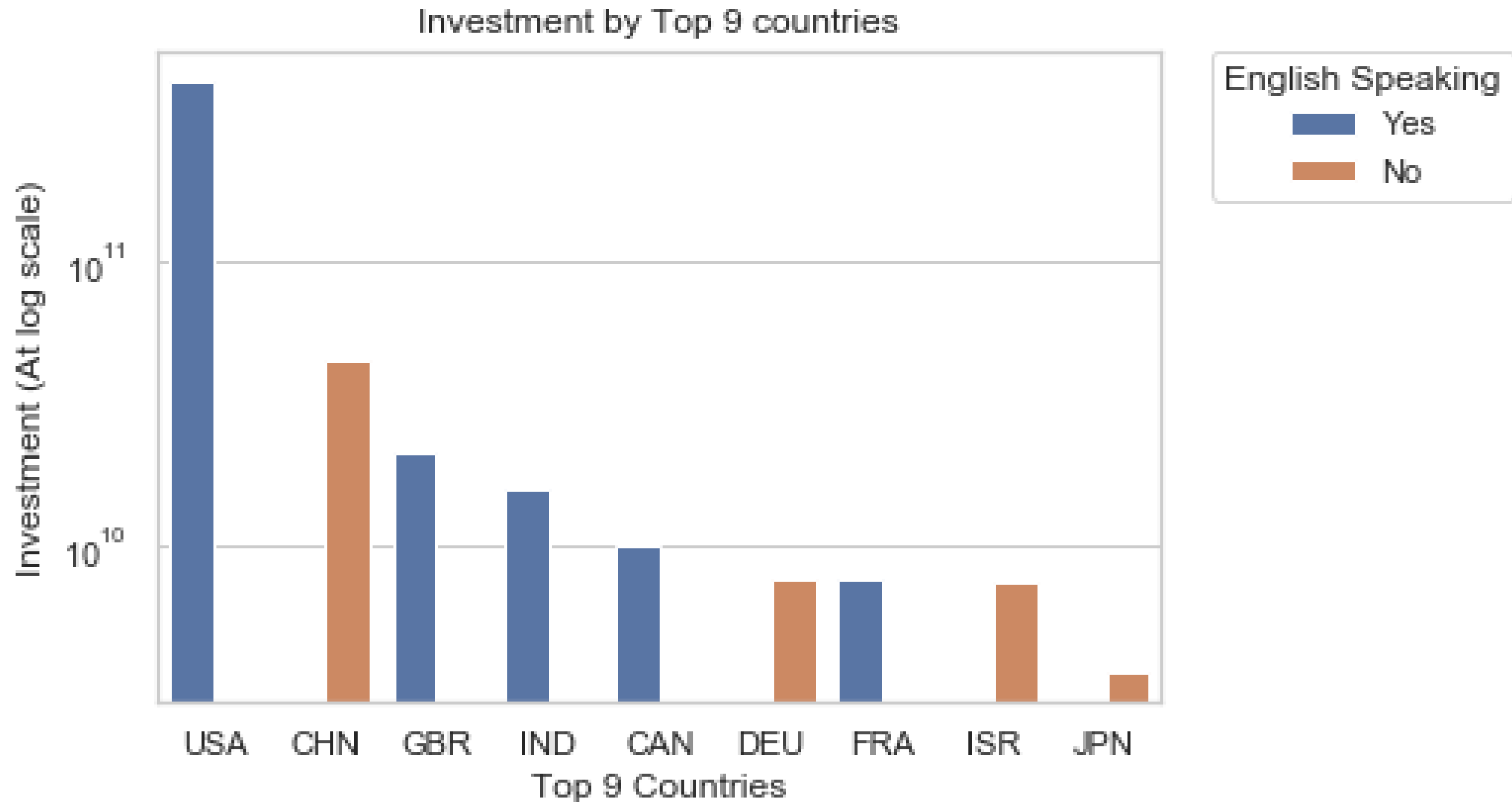
- Spark Funds wants to invest in countries which have been heavily invested in past but they should be only English speaking countries.
- Based on analysis, heavily invested top 9 countries are USA, China, United Kingdom, India, Canada, Germany, France, Israel and Japan in sequence.
- But top 3 English speaking countries from above are United States of America (USA), United Kingdom (GBR) and India (IND) so Spark Funds should invest in these countries.

	sum_invested	english_speaking
country_code		
USA	4.336758e+11	Yes
CHN	4.506542e+10	No
GBR	2.131203e+10	Yes
IND	1.565186e+10	Yes
CAN	9.943332e+09	Yes
DEU	7.599332e+09	No
FRA	7.524737e+09	Yes
ISR	7.477515e+09	No
JPN	3.541877e+09	No

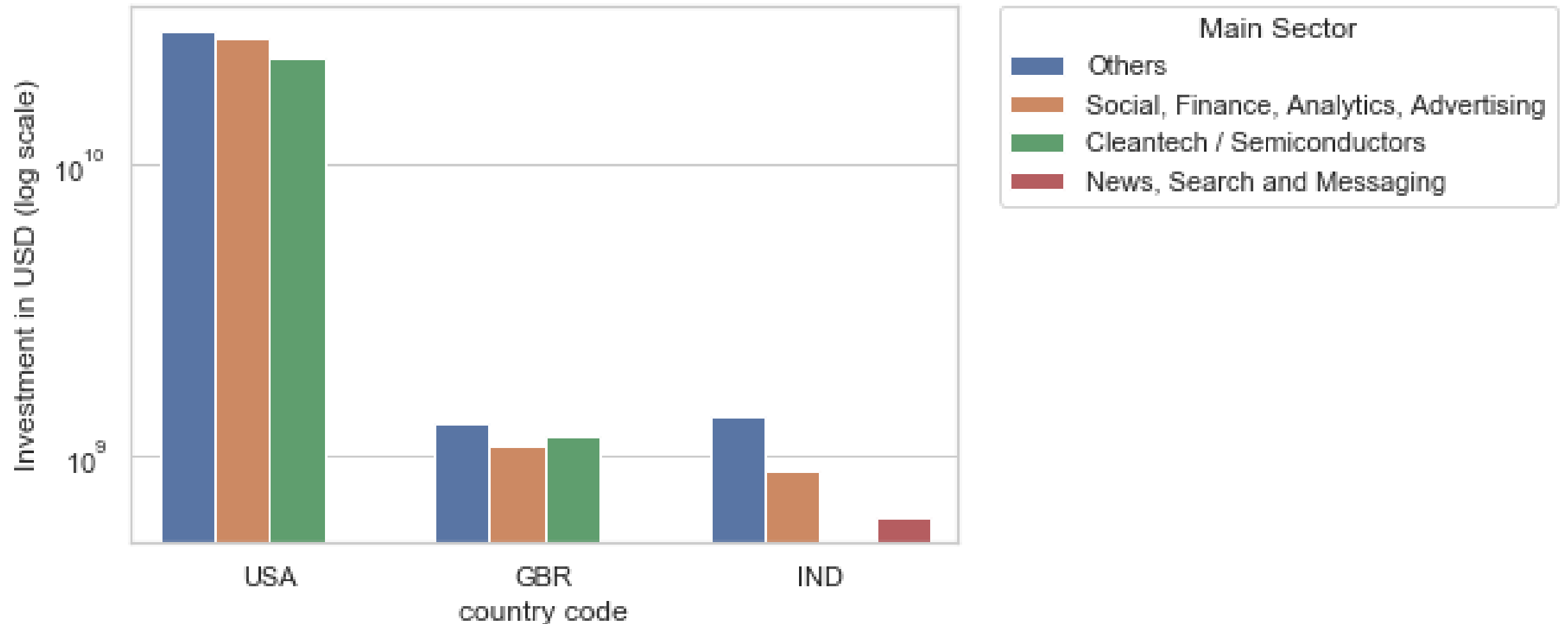
- Having a large number of sectors in the dataset, it was difficult to categorize them.
- Hence mapping these sectors with 8 major sectors to make the analysis simple and clean.
- Top 3 sectors for the top 3 countries were identified in this study.
- It was seen that the prominent sectors for these countries were as below
- **For USA and GBR:**
'Others', 'Cleantech/Semiconductors' and 'Social/Finance/Analytics/Advertising'
- **For IND:**
'Others', 'Cleantech/Semiconductors' and 'News, Search and Messaging'

Result Of Funding Type Analysis





Top 3 sectors of Top 3 countries



- Based on our analysis of the Investments data we can conclude the following
- Best investment type with an average size of investment in the 5-15 M USD range is **Venture Capital**.
- Top 3 English Speaking Countries receiving the highest investment amounts in Venture Capital funding types are **USA, Great Britain, India**
- The most suitable sectors for funding in the above three countries are
 - For USA and GBR: '**Others**', '**Cleantech/Semiconductors**' and '**Social/Finance/Analytics/Advertising**'
 - For IND: '**Others**', '**Cleantech/Semiconductors**' and '**News, Search and Messaging**'