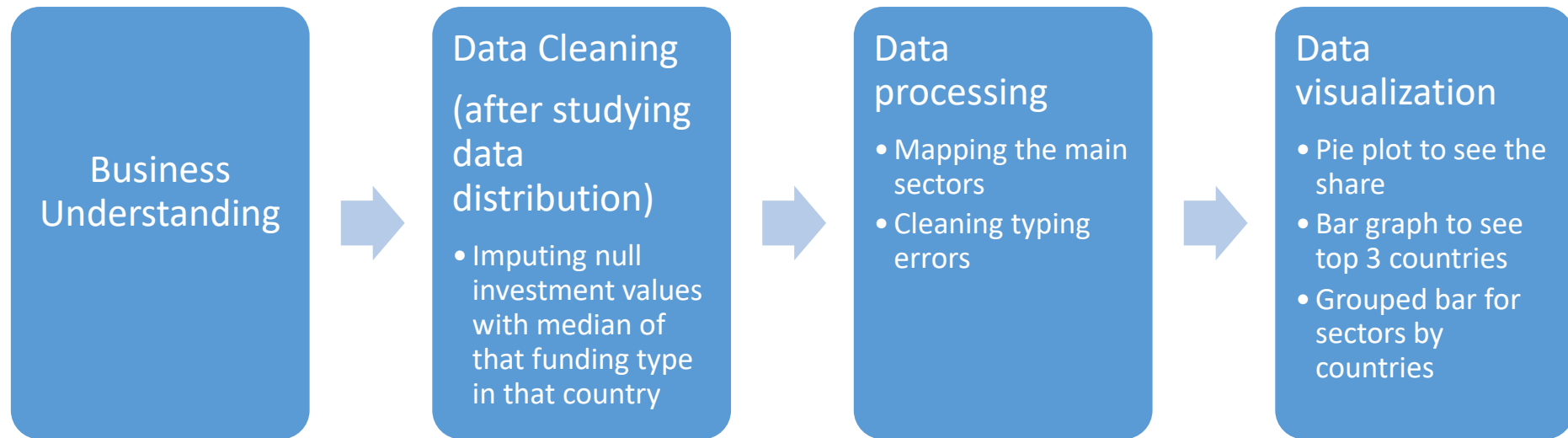# INVESTMENT ASSIGNMENT

SUBMISSION

Name: Barkha Saxena

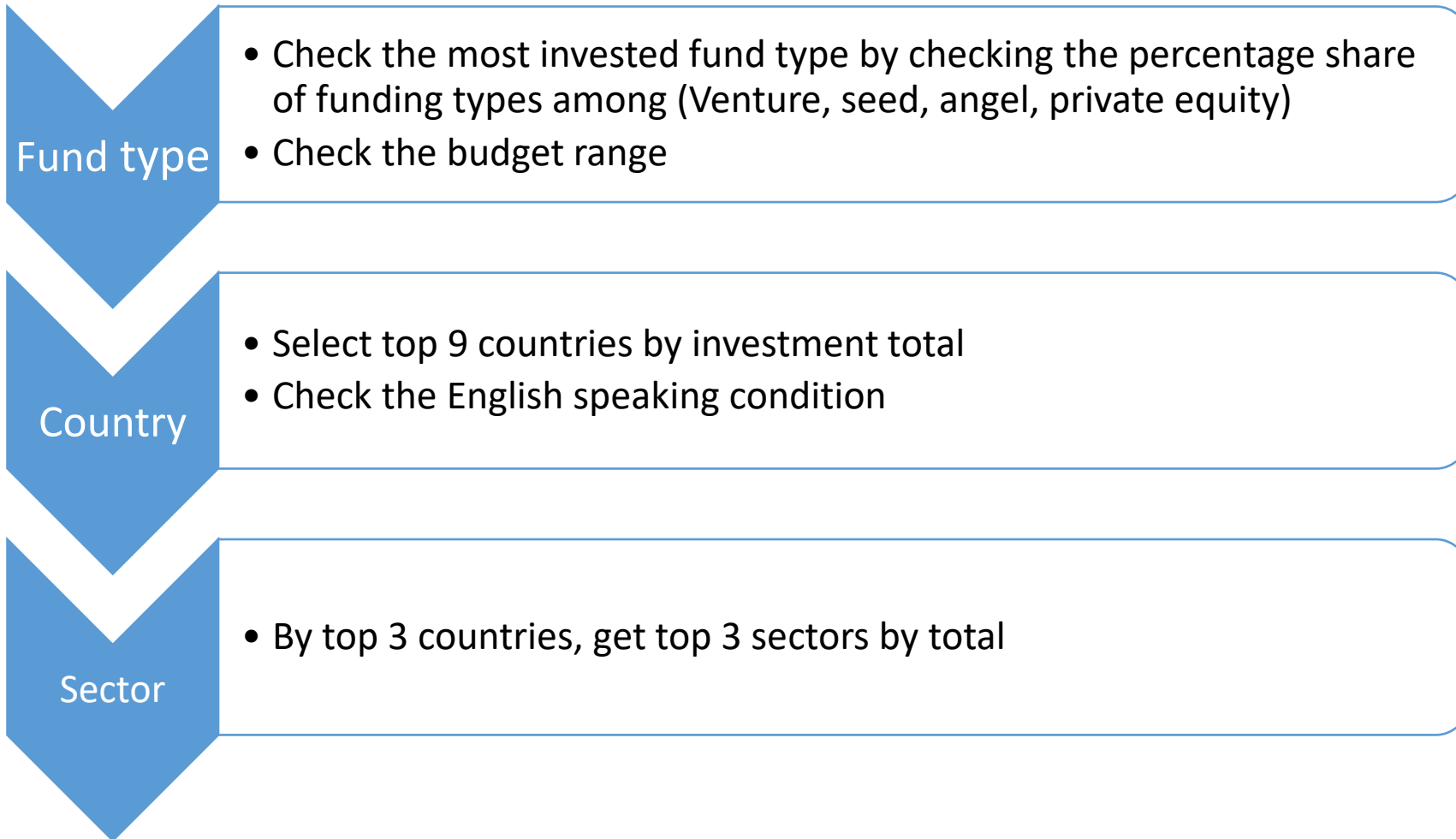# To find the most suitable investment for Spark Funds

After studying and analysing the global trends in the investments, based on the insights drawn from the data best options need to be presented to CEO of Spark Funds. The objective is to find the favorable investment options with the constraints:

- To invest between **5 to 15 million USD** per round of investment

- To invest only in **English-speaking countries** because of the ease of communication with the companies it would invest in

- To invest in popular countries and trending sectors with suitable funding type. (Assumption: Total Investment amount is directly proportional to the popularity)

Processing Flow

Steps Involved to find trending

Fund type
- Check the most invested fund type by checking the percentage share of funding types among (Venture, seed, angel, private equity)
- Check the budget range

Country
- Select top 9 countries by investment total
- Check the English speaking condition

Sector
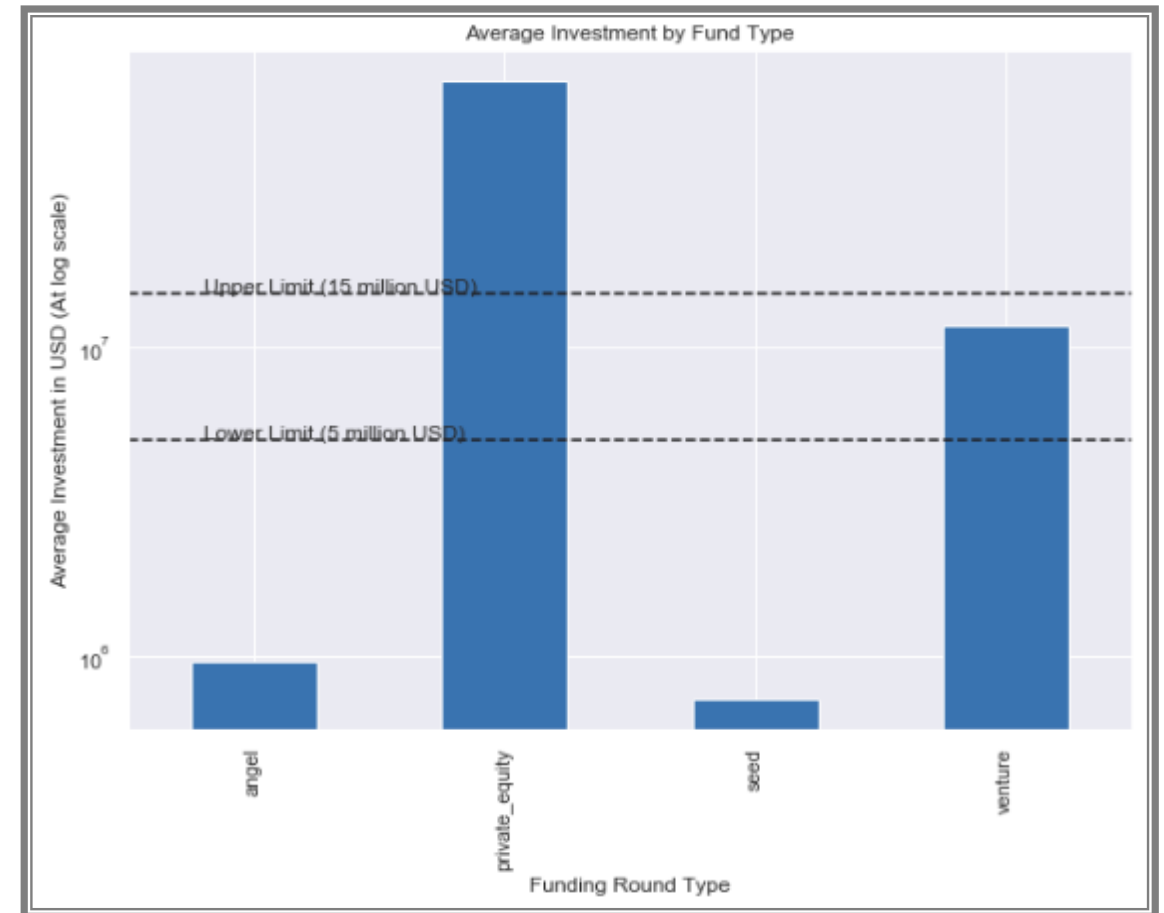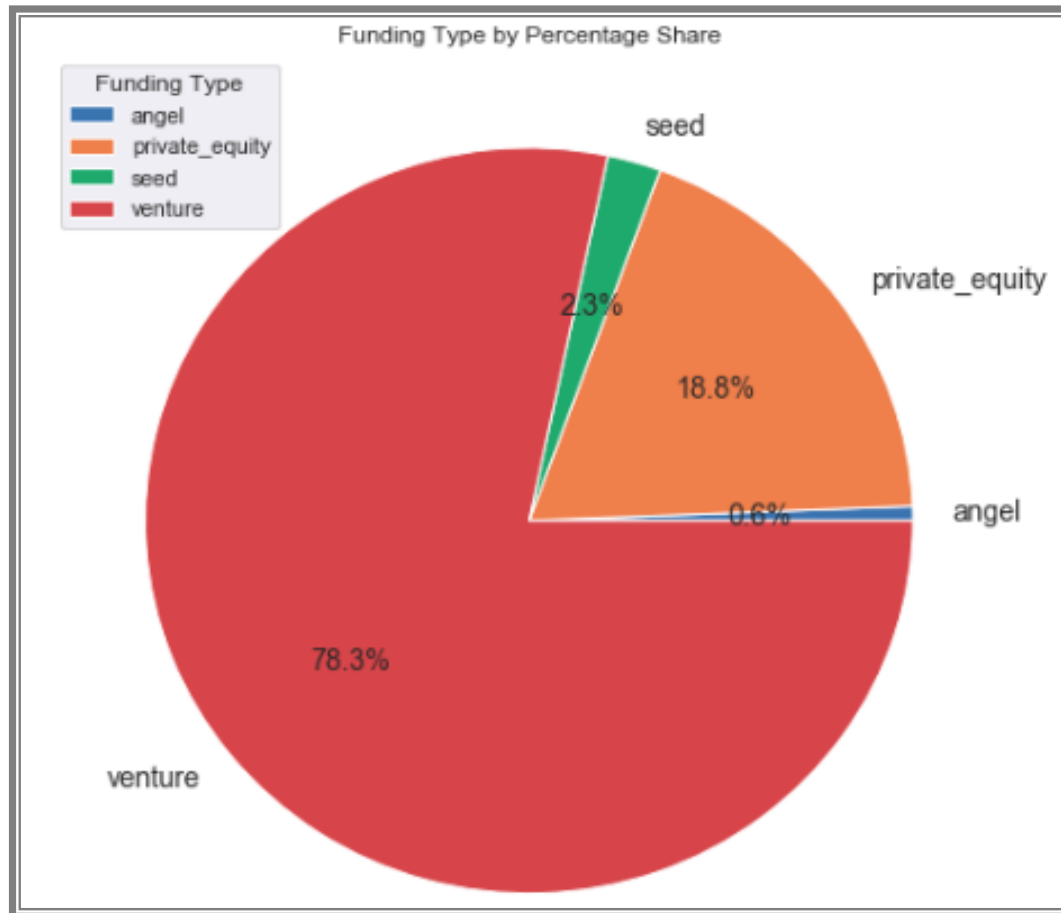- By top 3 countries, get top 3 sectors by total

Analysis

- To check the most suitable invested funding type in the investment (in reference to plot 1):
  - Calculated the average investment made per funding round in each of the funding type (seed, angel, venture and private equity)
  - While calculating taking care of the data quality – missing values of each round is imputed by the median value of that distribution type in that country (median because the data distribution contained outliers), using lower case for all permalinks (unique key), typecasting dates and strings
  - Assumption : Each record in companies data is a separate entity/company
  - Funding type whose average within the budget (5-15 Million) is the most suited one

- To check the most popular country (in reference to plot 2):
  - Based on our target funding type, we can find the companies which invest proactively by checking the total amount invested over the whole period
  - Out of these top countries, preference is given to those where English is one of the primary languages

- To check the top sectors (in reference to plot 3):
  - Extracted the primary category of each company (Assumption: the first category in the category list)
  - Mapped this primary category to the Main sector (data with spelling quality correction)
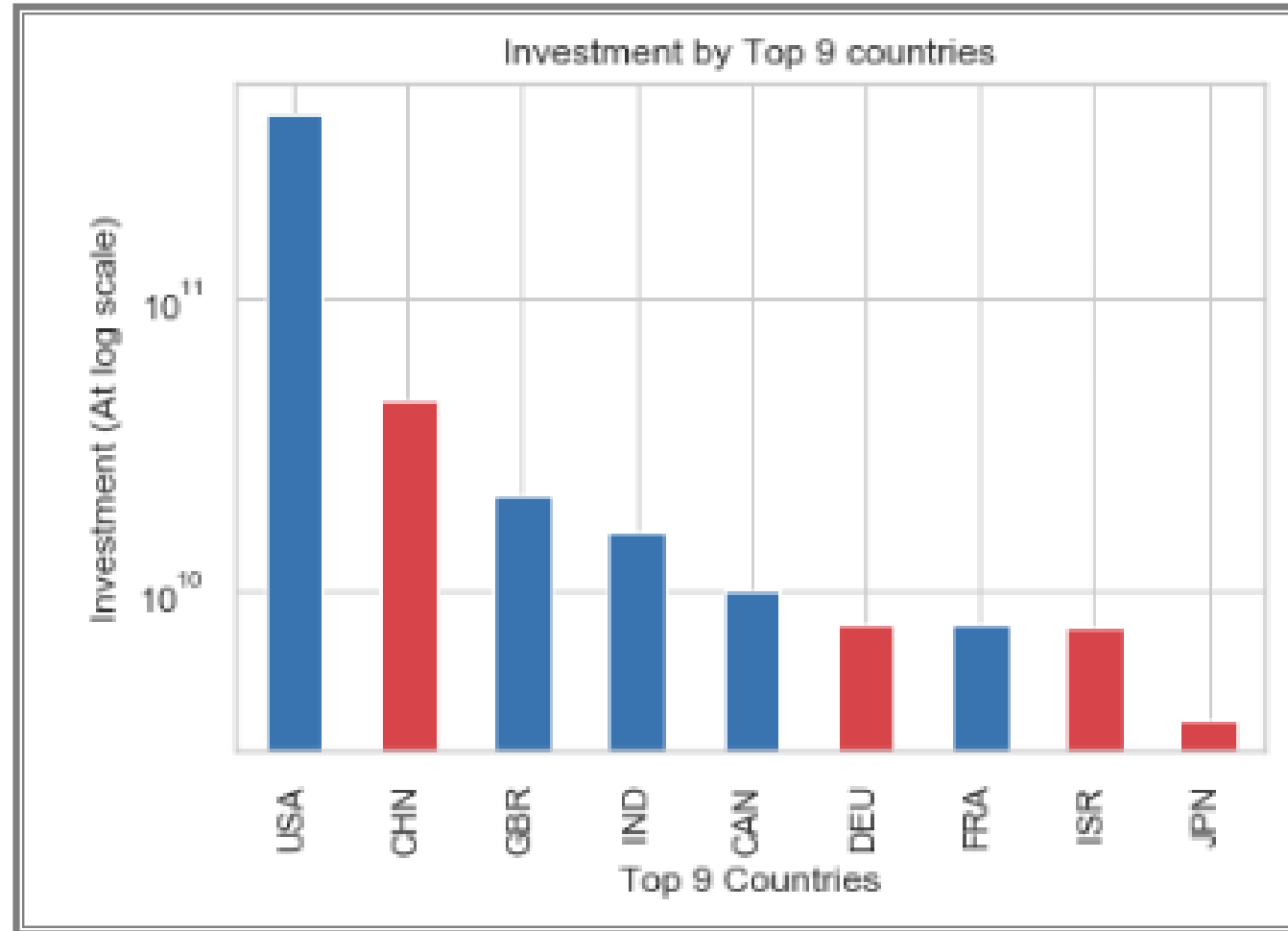 - Now, grouping investment of target funding type by sectors and countries and selecting the top 3
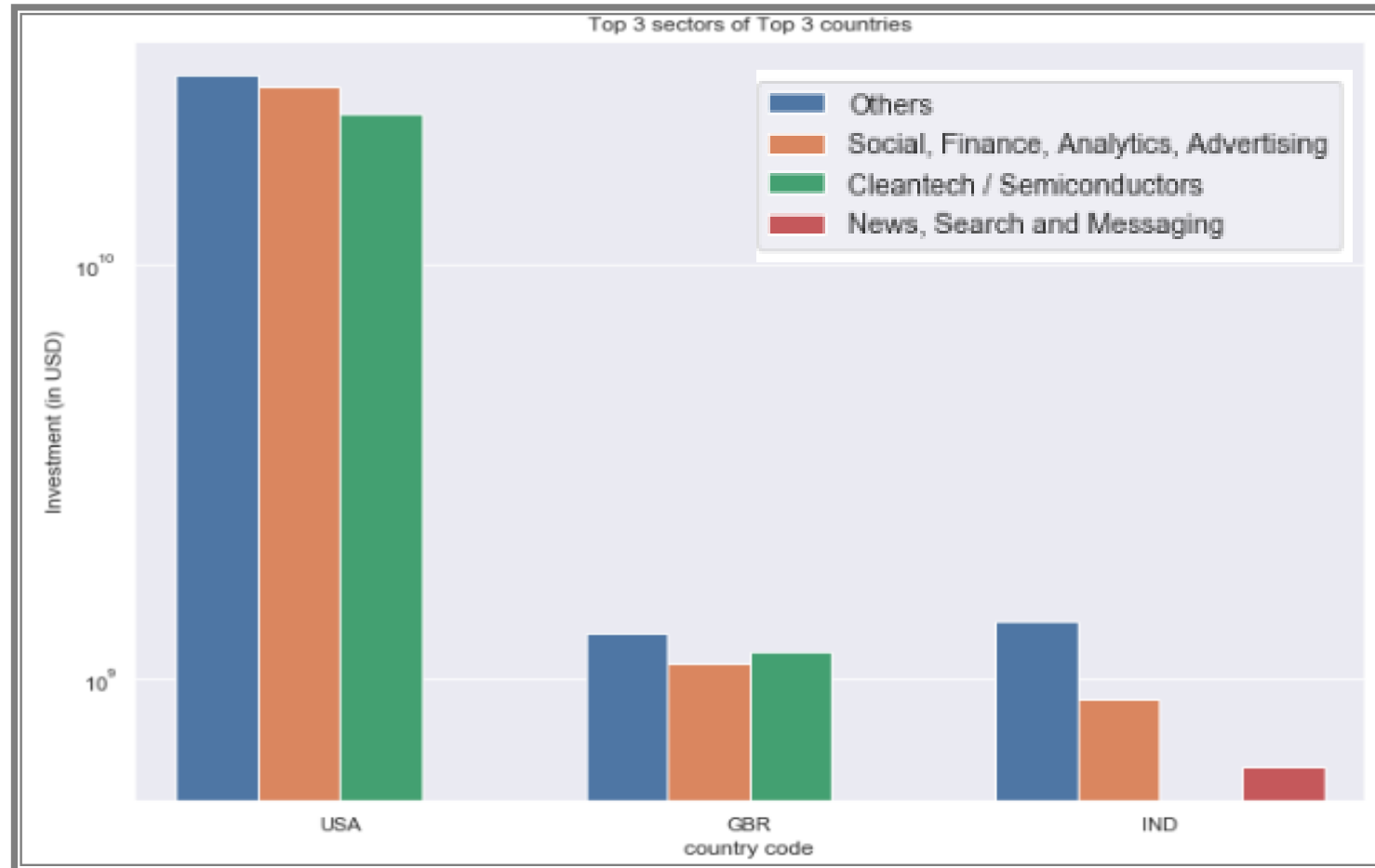
Investment by Funding Type

Plot 1

Investment by Top 9 countries

Plot 2

Top 3 sectors in Top 3 countries

Plot 3

Conclusion – favourable for investment

Top Funds: Venture

Top Countries: USA, UK,IND

Top Sectors : (in USA and UK) 1. Others

           2. Social, Finance, Analytics, Advertising sectors of USA, Great Britain and India in the Venture type funding

           3. Cleantech and semiconductors

     (in India) 1. Others

           2. Social, Finance, Analytics, Advertising sectors of USA, Great Britain and India in the Venture type funding

           3. News, Search and Messaging