# Investigating a suitable investment strategy for Telcov (a startup) in a foreign country

Yusuf Olanrewaju Bello

# Abstract

Telcov seeks to invest primarily in an English-speaking country where rival companies have previously invested in, with proof of financial success. The datasets (round2.csv and company.txt) used for the analysis can be found in cruchbase.com. By analyzing the said datasets (on jupyter notebooks) and obtaining bar charts that depict investments made (by rival companies) in the top 3 countries in key sectors and the sums/counts of investment, it was shown that USA received the largest amount of investment, and would be the most suitable country for Telcov to invest in.

# Motivation/Background

- Startups worldwide that seek investment in a foreign country
- often encounter enormous challenges ranging from
  - ✓ determining the choice of suitable country to
  - ✓ identifying appropriate investment strategy to adopt in the said country.
- Thus, this reality motivates the need for this study
- Telcov (a case study) seeks market penetration
  - ✓ in a dominant English-speaking country

# Motivation Continued

- The said startup wants to base her investment decision
  - ✓ on the successes of rival companies
  - ✓ which have previously invested in major English-speaking countries before
  - ✓ with huge investment returns.

# Dataset(s)

- Round2.csv
  - mainly contains specific data of:
    - ✓ types of investment done by rival companies
    - ✓ the sectors of interest the said companies invested in
    - ✓ the amounts (in USD) invested by the said companies in different years
- Company.txt
  - mainly contains specific data of:
    - ✓ rival companies and their pertinent contact information
    - ✓ the details of regions where they operate around the world

# Description of Dataset(s)

| Dataset(s) | Companies.txt | Round2.csv |
|---|---|---|
| Type | text file | csv file |
| Size | approx. 9mb | approx.12mb |
| Row(s) | 66,369 | 114,949 |
| Column(s) | 10 | 6 |

- The columns of companies.csv include: permalink, (company) names, homepage URL, category_list, status, country_code, status_code, region, city, funded_at

- The columns of round2.txt include: permalink, funding_round_permalink, funding_round_type, funding_round_code, funded_at, raised_amount_usd

# Data Preparation and Cleaning

- Unique number of permalinks in ‘companies’ dataset was identified
- Unique company names in ‘round2’ were also identified
- Data quality issues related to encoding were handled
- Missing values in ‘companies’ dataframes
  - ✓ & ‘round’ dataframes were identified
- ‘Permalinks’ columns (of both datasets) were merged
  - ✓ because they contain no missing values

# Data Preparation and Cleaning Continued

- Thus, a ‘master dataframe’ was created for the analysis
- Column-wise missing values were identified
  - ✓ in the said dataframe
- The column ‘found_round_code’ (with ~73% missing values) was dropped
- Columns homepage_url, funded_at, state_code
  - ✓ & city need not be used
  - ✓ they were all dropped
- The column ‘raised_amount_usd’ was left
  - ✓ because it was useful for obtaining the amounts of investment

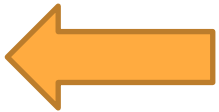
# Data Preparation and Cleaning

- The column ‘country_code’ was left
  - ✓ because it was used for country-wise analysis
- The column ‘category_list’ was left.
- The missing values in the raised_amount_usd were identified
  - ✓ the rows with NAN values were removed
- Rows with missing country_code values were removed
- Rows with missing category_list values were removed

# Research Question(s)

Of the 3 possible research questions identified:

- ❖ What investment type is most suited for Telcov (investment type analysis)?
- ❖ Where have Telcov rivals invested in the past and why (country analysis)?



  - ✓ focus will be on English-speaking countries only

- ❖ Which 8 major sectors will Telcov invest in (sector analysis)?

Only research question 2 was considered in this study.

# Methods

- Round2.csv & company.txt data files were cleaned
  - ✓ primarily to remove null values
- Both data files were merged via ‘permalink’ column
  - ✓ ‘permalink’ is a common column to both data files
- In order to create a new dataframes (df)
- df contains data of:
  - ✓ rival  organization info
  - ✓ (Countries) where rival organizations had previously invested in
  - ✓ Counts (or number) of investments in each sector

# Methodology Continued

- ✓ Total amount (in USD) invested across sectors

- ❖ Countries were furthermore grouped by total amounts of investment
- ❖ Sums of investments in each sector were filtered

  - ✓ in order to obtain data for the top 3 English-speaking countries

  - ✓ that received the most investments in the past

- ❖ Plots were obtained for those countries

  - ✓ across different sectors

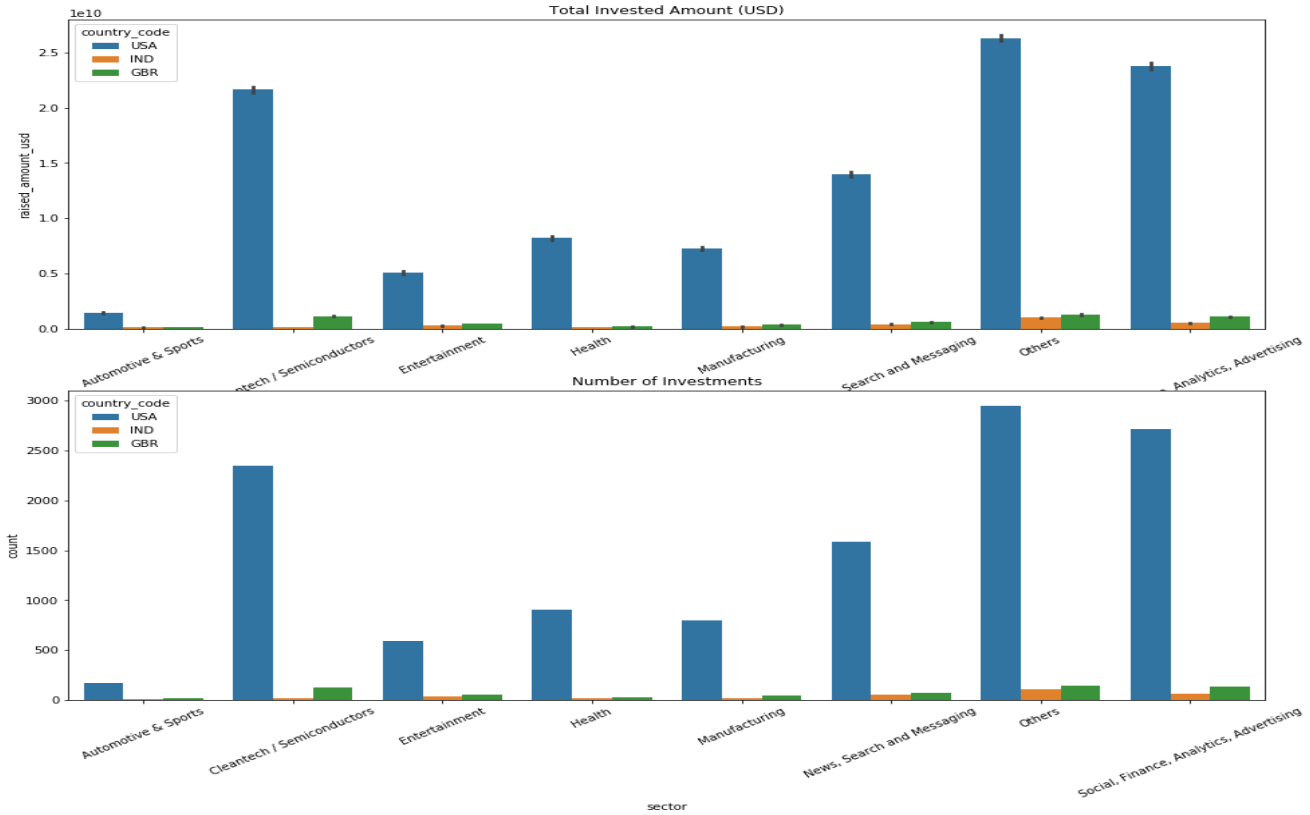



Fig 1a: A bar chart showing the investment made in top 3 countries across different sectors against the total amount of investments

Fig 1b. A bar chart showing the number of investments in the top sectors for the top 3 English-speaking countries

# Limitations

- As said before, both investment type analysis
  - ✓ & sector analysis were not considered in this study
- The funding restriction of the Telcov's planned investment
  - ✓ was not also considered in this study

# Results & Conclusions

- As shown in fig1b, the county that has the most count of investment
  - ✓ across all sectors is USA
  - ✓ followed by Great Britain and India
- As shown in fig1a, the country that received the largest amount of investment
  - ✓ across all sectors is USA
  - ✓ followed by Great Britain and India
- Therefore, Telcov will be well advised to invest in USA
  - ✓ based on the outcome of this study

# Acknowledgements/Refences


- The feedback of Olayode Ogunniran (NIIT Lagos)
- on the data analyzed is gratefully acknowledged
- Datasets were obtained from crunchbase.com


- No additional reference was used
- Only the round2.csv and the company.txt datasets were used
- The Jupyter notebook was not included
  - ✓ because of serious technical and confidentiality issues