

INVESTMENT CASE STUDY

SUBMISSION

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Abstract

- Spark Funds, an asset management company, intends to make investments and would like analysis based recommendations
- An understanding of global trends in investments is essential, for effective investment decisions.
- 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
- Strategy of Spark Funds is to invest where most other investors are investing
- Data Source: Real investment data from **crunchbase.com**

Methodology

Start

Business Understanding

Objective: Identify best sectors, countries & suitable investment type to invest, where most investments are happening
Goals: Investment type analysis, Country analysis, Sector analysis

Data Understanding

Data Source: Real investment data from **crunchbase.com** .
Data sets : 3 sets provided – **Company** details, **Funding Round** details & **Sector Classification** details

Data Preparation

Data Clean: Load Data sets provided & observe data for unique records, key attributes, data integrity, etc; Clean data appropriately to handle blank values, case sensitivity, character/numeric data type conversions/etc
Construct & Format Data: Merge the Company & Funding Rounds data with all respective attributes to create a master data set.
Map master data sector categories to the 8 main sectors in the provided Sector Classification data set.

Data Analysis - Investment/Funding Type, Country , Sector

Investment/Funding Type Analysis: Understand investments made in 4 funding types – namely seed, angel, venture & private equity type of investments. Analyse the Average Values of Investments for each of these Funding Types & select the best Funding type for Spark Funds.
Country Analysis: Understand which countries have received the highest total funding in the past for the best Funding type identified and analyse the 3 most investment-friendly, English speaking countries for their funding
Sector Analysis: Understand investment distribution across the 8 main sectors & Analyse most heavily invested sectors in each of the 3 most investment friendly countries for the best suited funding type for Spark Funds, ensuring adherence to constraints & business rules.

Recommendations/Results Presentation

Based on strategy & analysis, Recommend main sectors, countries and specific funding type that Spark Funds must invest in.

Investment/Funding Type Analysis

- Investments are made in 4 funding types:
 - Seed (occurs in early stage of startups)
 - Angel (occurs in early stage of startups)
 - Venture (occurs after seed/angel stage & involves higher investment)
 - Private Equity (occurs in larger companies & involves higher investments than venture type)
- Average Value of Investments for each Funding Type:

Investment/ Funding Type	Average Value of Investment (USD)
Venture	11748949.1
Angel	958694.5
Seed	719818
Private Equity	73308593

- Given that Spark Funds wants to invest between **5 to 15 million USD** per investment round, **VENTURE investment type** appears the most suitable for them.

Country Analysis

- Spark Funds wants to invest in English speaking countries which have received the highest amount of funding for the chosen investment type as part of its broader strategy to invest where most investments occur.
- Top 3 Investment friendly, English Speaking Countries for VENTURE Funding type

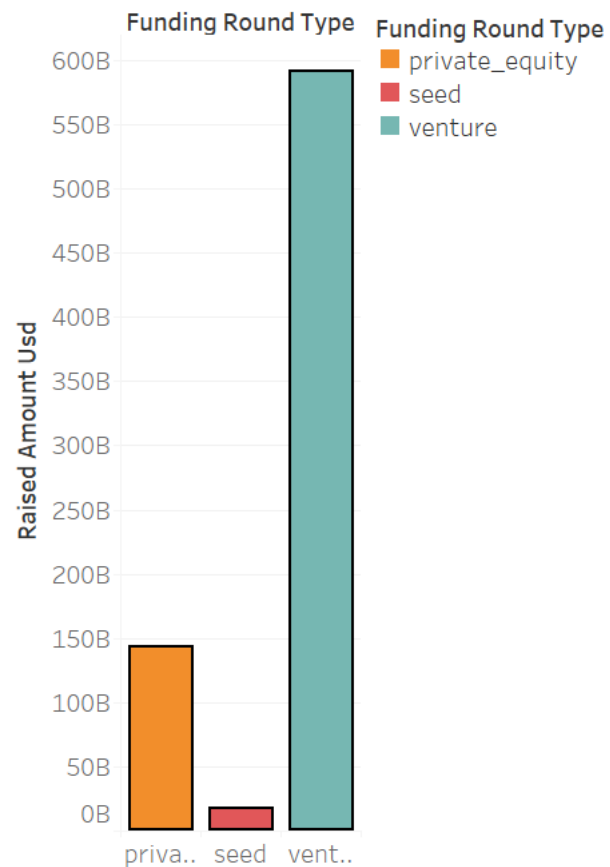
First	United States of America
Second	United Kingdom
Third	India

- A country is identified as English Speaking if English is one of its official languages

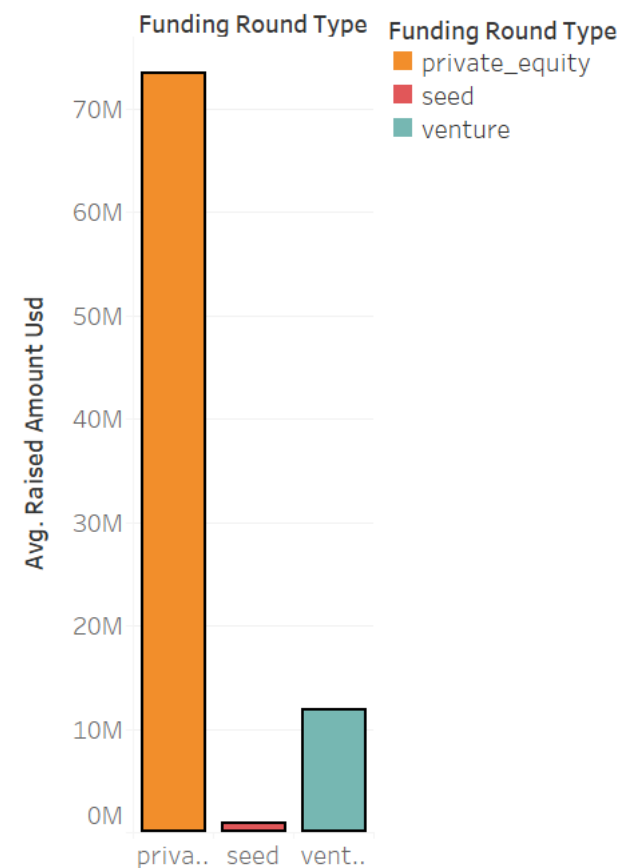
- Analyse the most heavily invested main sectors in each of the three most investment friendly countries for VENTURE funding type (given that investment must be between 5-15million USD and in English speaking countries)
- A **business rule** for sector mapping is applied in case of multiple sub sectors, wherein the first string before the vertical bar is considered as the **primary sector**.
- Sector-wise investment analysis for Top 3 countries

	USA	UK	India
Total number of Investments	12150	628	330
Total amount of investment (USD)	1.0853E+11	5436843539	2976543602
Most Highly Invested Sector	Others	Others	Others
	2950 Investments	147 Investments	110 Investments
Second Most Highly Invested Sector	Social..Finance..Analytics..Advertising	Cleantech/Semi conductors	Social..Finance..Analytics..Advertising
	2714 Investments	130 Investments	60 Investments
Third Most Highly Invested Sector	Cleantech...Semi conductors	Social, Finance, Analytics, Advertising	News, Search & Messaging
	2350 investments	133 investments	52 investments

Funding Type-wise Investments (Fractions and Averages)

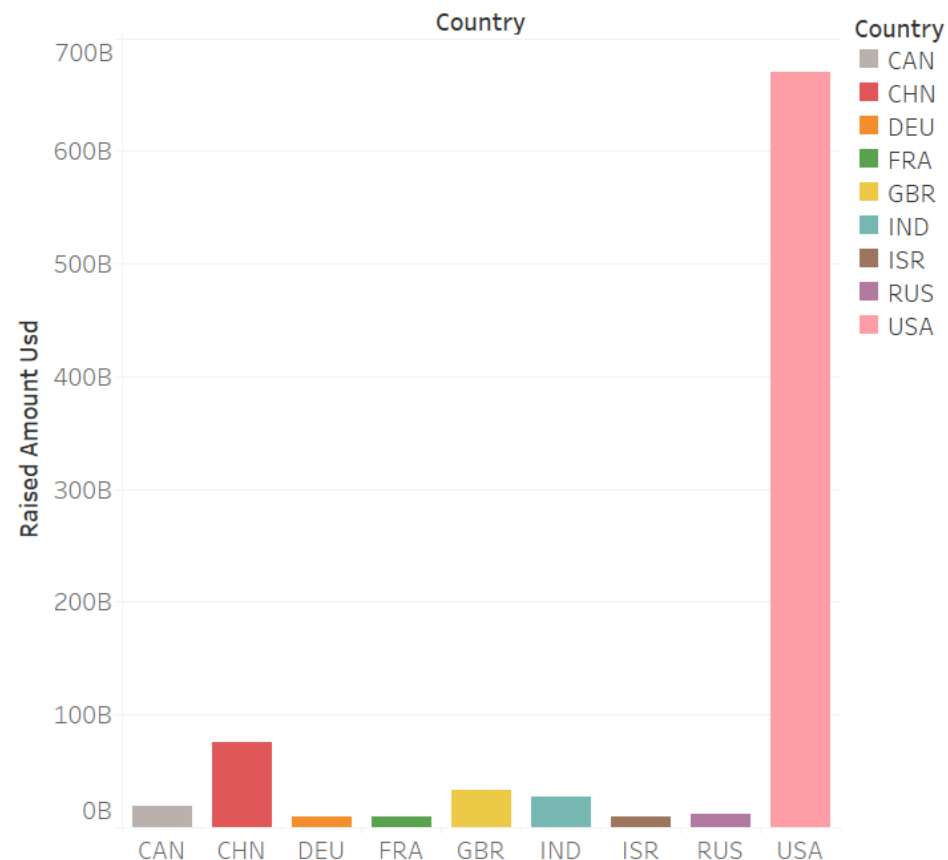


Sum of Raised Amount Usd for each Funding Round Type. Color shows details about Funding Round Type. The view is filtered on Funding Round Type, which keeps private_equity, seed and venture.



Average of Raised Amount Usd for each Funding Round Type. Color shows details about Funding Round Type. The view is filtered on Funding Round Type, which keeps private_equity, seed and venture.

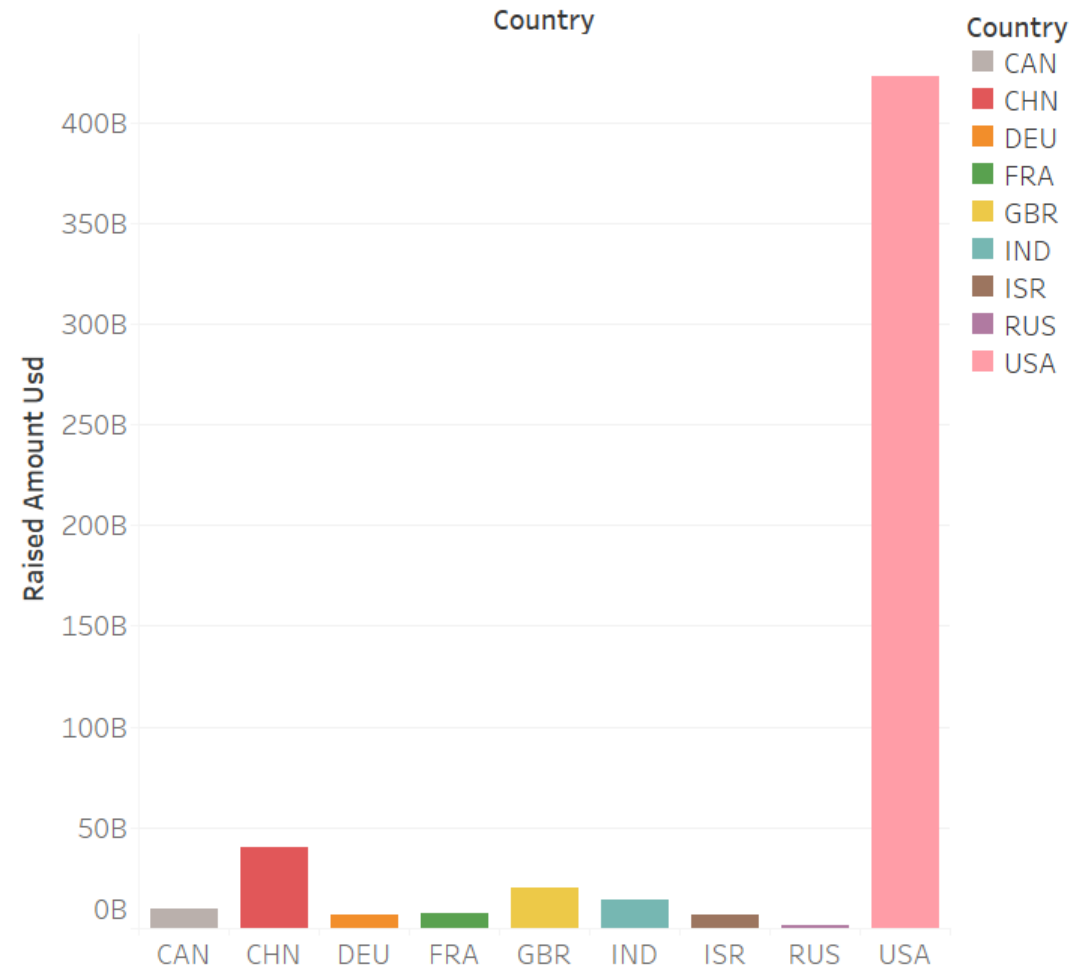
Total Investments of Top 9 Countries for all funding type.



Sum of Raised Amount Used for each Country. Color shows details about Country. The view is filtered on Country, which has multiple members selected.



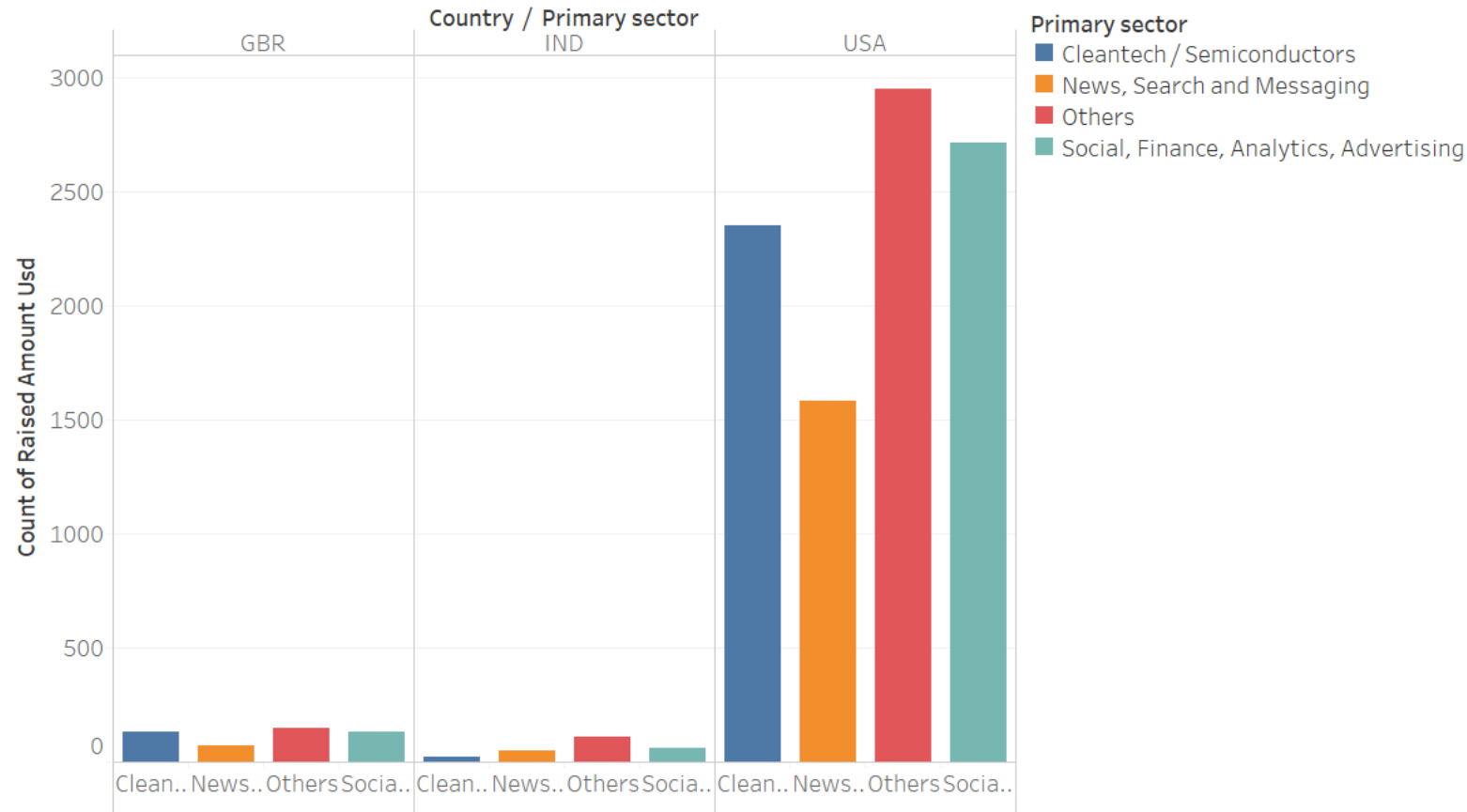
Total Investments of Top 9 Countries for Venture Funding UpGrad



Sum of Raised Amount Usd for each Country. Color shows details about Country. The data is filtered on Funding Round Type, which keeps venture. The view is filtered on Country, which has multiple members selected.



Most Highly Invested Sectors in Top 3 Countries for Venture Funding



Count of Raised Amount USD for each Primary sector broken down by Country. Color shows details about Primary sector. The data is filtered on Raised Amount USD and Funding Round Type. The Raised Amount USD filter ranges from 5000000 to 15000000. The Funding Round Type filter keeps venture. The view is filtered on Country and Primary sector. The Country filter keeps GBR, IND and USA. The Primary sector filter keeps Cleantech / Semiconductors, News, Search and Messaging, Others and Social, Finance, Analytics, Advertising.

- Recommended country, **USA, GBR, INDIA**
- Recommended sectors, **others, social, new search..., and cleantech and semiconductor.**
- Recommended funding type is **venture.**