Business Strategy Analysis Using Quarterly Earnings Calls



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What's the Big Question?

How has change in leadership affected the business strategies and key focus areas for the two biggest tech giants?

Why does it matter?

It helps us gain further insight into why leaders make the decisions they do and if there really is a 'right' way to strategize

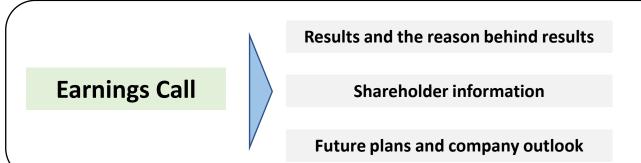




Data Source

Quarterly Earnings Conference Call Transcripts from 2005 – 2022 for two tech giants – Google and Apple

But why Earnings Call Transcripts?





Key Themes the company is focusing on



Source: Seeking Alpha

Observation Period: 2005 - 2022

Apple Inc. - AAPL & Google - GOOG





Data Preprocessing

Data Preprocessing was needed to highlight differentiating and relevant topics across earnings call that tend to be homogenous and vague

Raw text files containing transcript text with special characters, newline I and end of line identifiers, etc need to be cleaned and processed to get set of legible English sentences

Extracting sentences from raw transcript text files

Removing Stop Words and additional terms

- Removed English Stopwords
- Removed additional stopword terms determined to be irrelevant heuristically
- Removed words identified as Names by spaCy EntityRecognizer

Set all words to lower case and lemmatized to generalize the text

Lemmatization

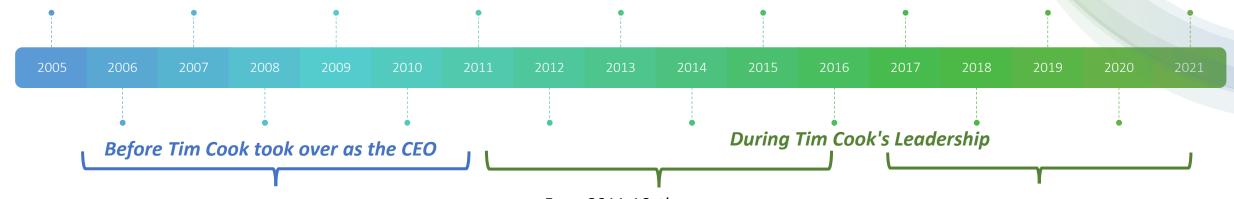
Tokenization (using TF-IDF trigrams for LDA)

- Tokenized all transcripts using TF-IDF values
- Included Trigrams in Tokenization
- Specifically done to be fed as input to Topic Modelling





Key Themes - Apple



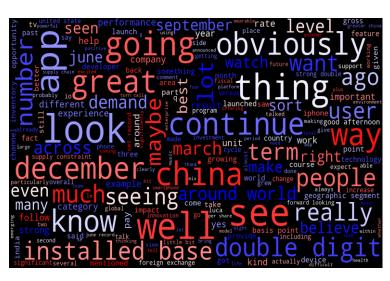
From 2006-11, focus more on software and development of products represented by words such as **developer**, **ipod**, **mac book**, **software**, **retail etc**

From 2011-16, the company was focusing on laying a foundation which is represented by the words on the top left image channel, inventory, demand, emerging, app

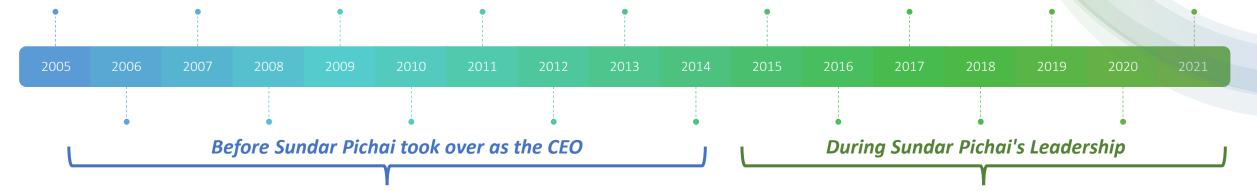
From 2017-22, the company focused on implementation of the foundations which is represented by words like user, launch, performance, installed.







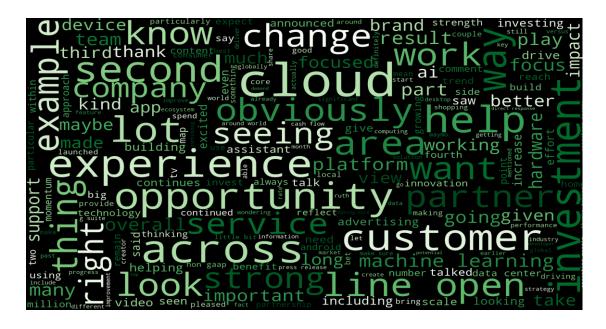
Key Themes - Google



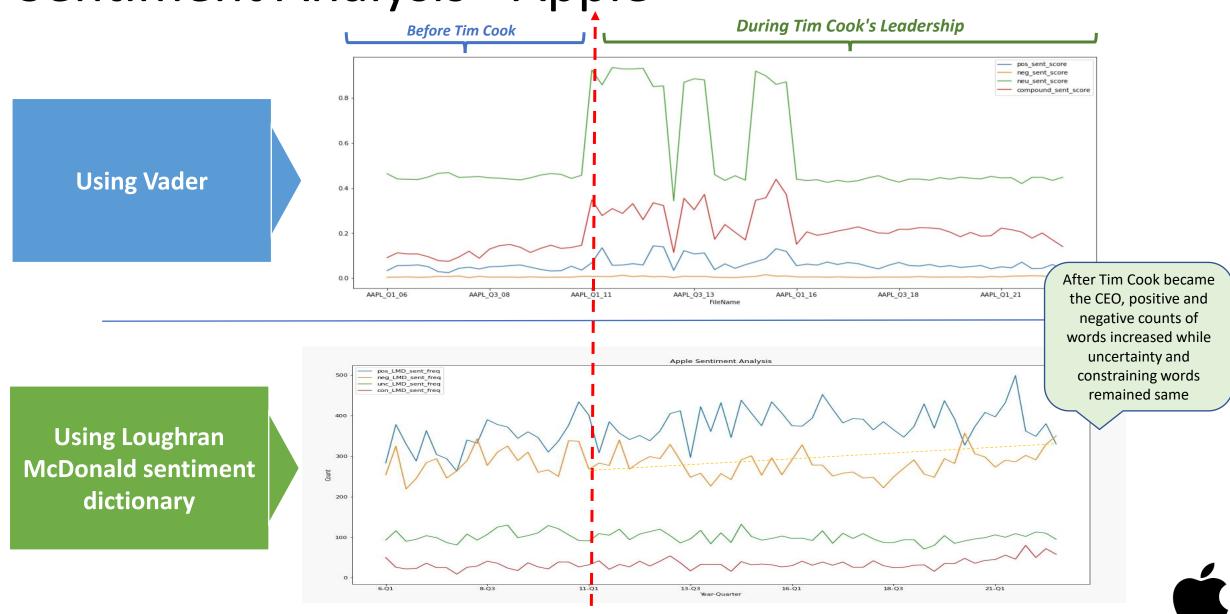
From 2006 – 2015 company was more focused on generating revenue with the aid of advertisements across multiple platforms which can be seen with the word cloud image on the top which has words like **advertising, display, platforms** etc.

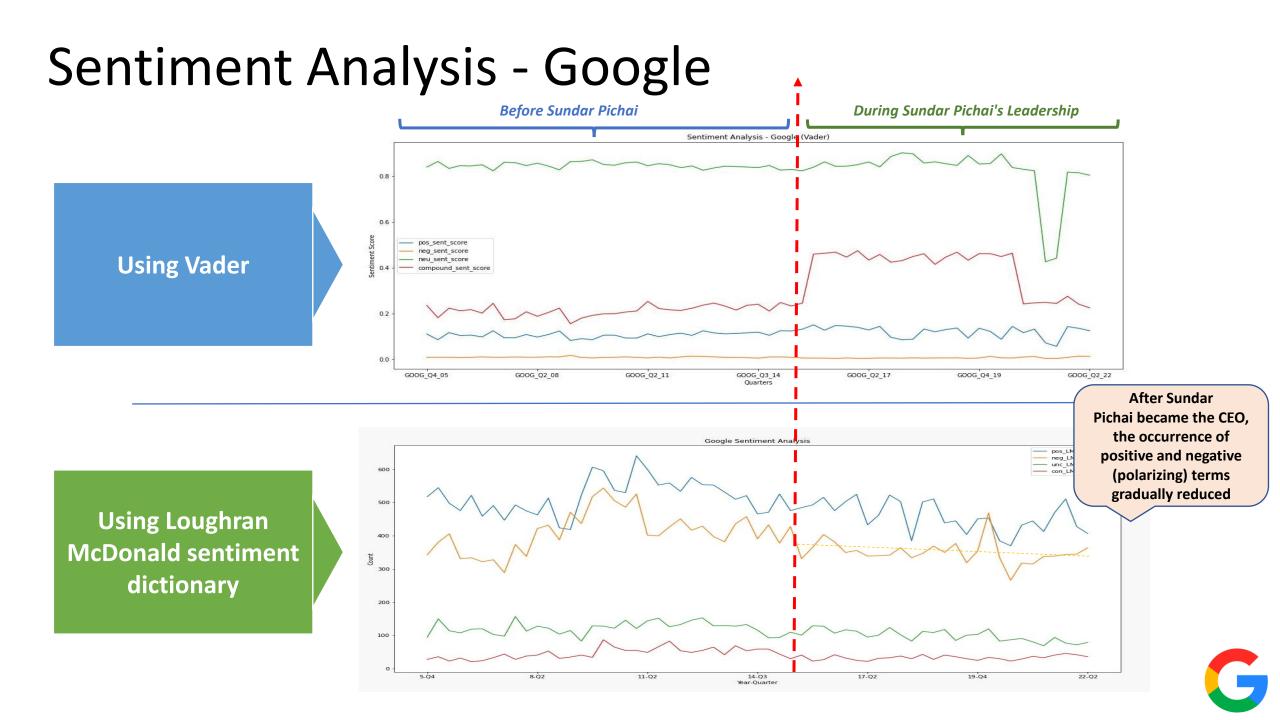
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From 2016 – 2022 the company was more focused on working and improvement of **cloud, drive, customer service** which can be seen with the bottom word count image



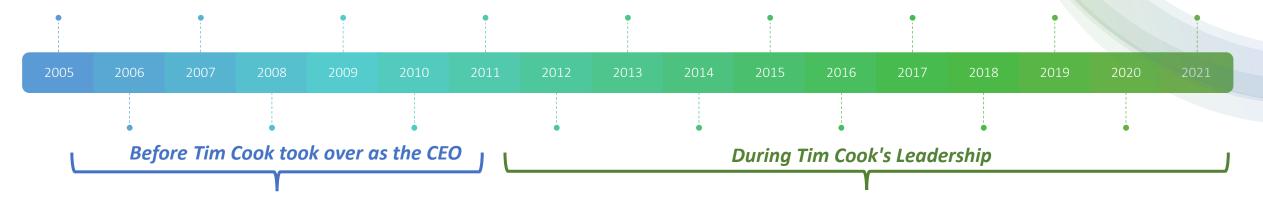
Sentiment Analysis - Apple











<u>Product Innovation:</u> ['iphone apple tv', 'commodity pricing environment', 'customer store week', 'environment product mix', 'ipod representing growth', 'new software feature']

<u>Hardware Development:</u> ['intel-based mac', 'itunes music store', 'supply demand balance', 'cash stock based']

<u>Mobile Phone Innovation:</u> ['iphone apple tv', 'published estimate growth', 'iphone ipod touch', 'long term marketable', 'traditional mp player', 'smart phone market']

<u>Sales Growth:</u> ['channel inventory reduction', 'itunes software service', 'iphone iphone plus', 'strong double digit', 'seven-week target', 'sold million iphones', 'satisfaction rate ipad', 'time quarterly record', 'outside united-states']

Revenue Generation: ['double digit growth', 'supply demand balance', 'iphone channel inventory', 'growth geographic segment', 'cash flow operation', 'new product pipeline', 'new time record']

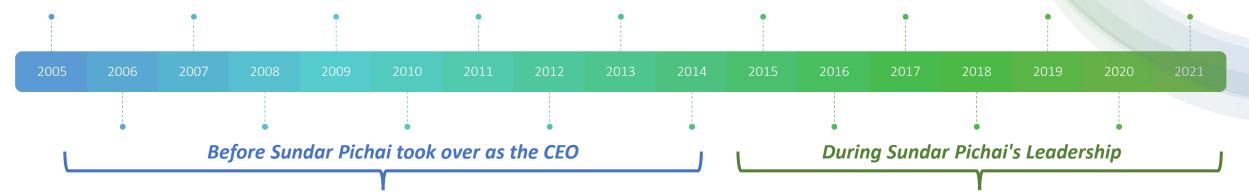
<u>Increase in Profit Margin:</u> ['wearable home accessory', 'set june record', 'service gross margin', 'product gross margin', 'double digit geographic', 'million paid subscription']

Under Steve Job's leadership, the company was very **product/innovation focused**

Under Tim Cook's leadership, the company was focused on **both product and growth/business**

G

Topic Modelling - Latent Dirichlet Allocation (Google)



Global Management: ['paid click growth', 'global sale operation', 'aggregate paid click', 'click growth rate', 'product management global', 'activity remove capital', 'remove capital expenditure']

<u>Advertising Income:</u> ['earnings press release', 'long term growth', 'total advertising revenue', 'excluding stock based', 'earnings diluted share', 'net income billion', 'free cash flow', 'content acquisition cost', 'machine learning ai']

<u>Company Growth:</u> ['advertising revenue billion', 'free cash flow', 'short form video', 'visiting relation section', 'earnings press release', 'query volume growth']

Before Sundar Pichai's leadership, the company was focused on revenue generation from various advertisement platforms

<u>Technological Growth:</u> ['cloud play hardware', 'long term growth', 'machine learning make', 'make mobile web', 'mobile web better']

<u>Customer Experience:</u> ['benefit hedging program', 'paid click growth', 'product listing ad', 'consumer online activity', 'description risk factor']

<u>Advertising management:</u> ['total revenue billion', 'total advertising revenue', 'carry higher tac', 'site tac rate', 'sale marketing expense', 'content acquisition cost', 'advertising revenue billion']

Under Sundar Pichai's leadership, the company was focused on improvising cloud services and customer experience

Insights/Takeaways

Indicators

- Word Cloud Analysis
- Comparison of Apple from period 2005 to 2011 and 2011 to 2022

• Comparison of Google from period 2005 to 2015 and 2015 to 2022

Insights / Takeaways

- Under different leaders, companies operate differently, as their strategies differ.
- With Apple Pay, Apple TV and iCloud, as well as the emergence of Apple tv and Apple TV home, Apple has transitioned from major technology to equal distribution in technology and business models.
- Google transitioned towards rapid improvisation of cloud, drive, customer experiences at a rapid pace from being a major advertisement platform
- Even though the shift in focus differed drastically after change in leadership in both companies; Apple going for a business expansion and record revenues route and Google focusing on tech innovation, both companies have performed exceptionally well.

Thank you!