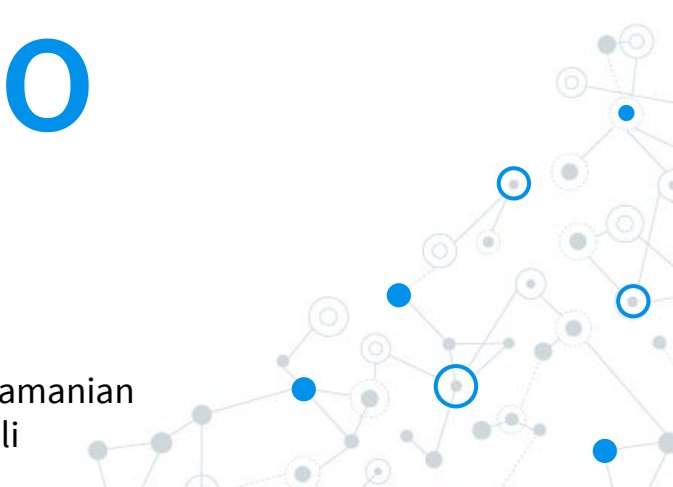


A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. Some nodes are highlighted with blue circles, and others with blue dots. The lines are thin and grey, creating a mesh-like structure.

THE ANATOMY OF A SOCIAL CEO

Ananya Garg | Aishwarya Pawar | Sahana Subramanian
Puja Subramaniam | Sayesha Aravapalli

A decorative network diagram in the bottom-right corner, similar to the one in the top-left, featuring a complex web of interconnected nodes and lines. Some nodes are highlighted with blue circles, and others with blue dots. The lines are thin and grey, creating a mesh-like structure.

AGENDA

01

**PROBLEM AND
SIGNIFICANCE**

02

**DATA SOURCE AND
PRE-PROCESSING**

03

ANALYSIS

04

**INSIGHTS AND
NEXT STEPS**

BUSINESS PROBLEM

How should a CEO be active
on Twitter to increase
business success?



Problem Significance



RELEVANCE

81% of survey respondents feel that CEOs who engage in social media are better equipped to lead their respective company



ENGAGEMENT

Allows CEOs to build their company brand, encourage company culture, and set the tone for how customers should view the business



BUSINESS SUCCESS

Monthly active users on Twitter has increased, so direct interaction with the CEO/brand increases company presence.

Overview of Data

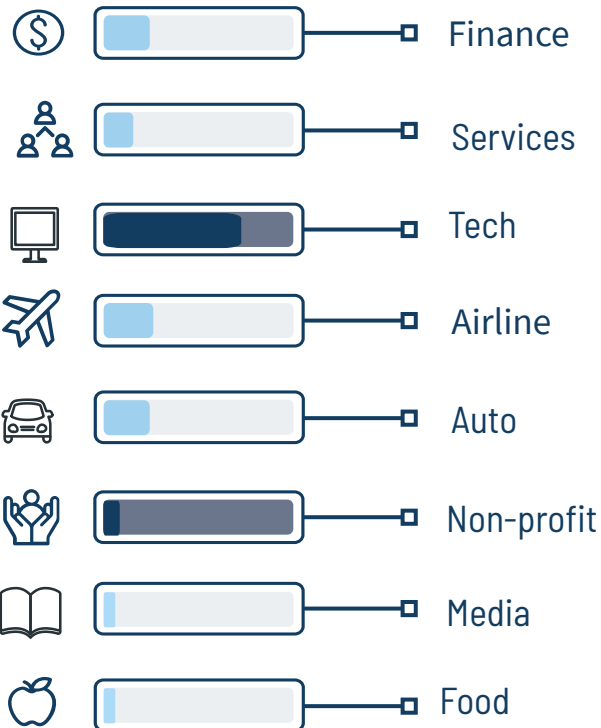
 **31**

**TOTAL NUMBER OF CEO
TWITTER ACCOUNTS ANALYZED**

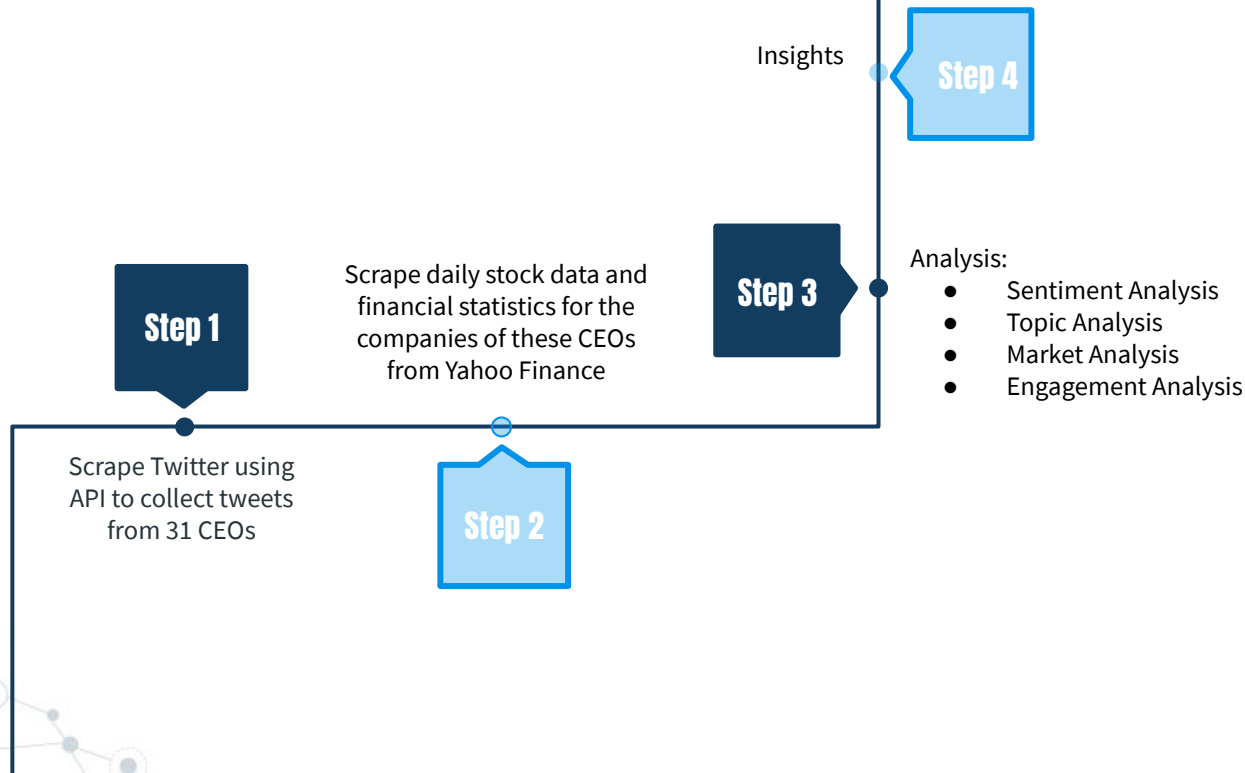
87.5%  **12.5%** 

GENDER

INDUSTRY



Methodology



Data Pre-processing

FORTUNE

Get CEOs of Fortune
100 companies



YAHOO!
FINANCE

Get data on daily
returns and statistical
information of the
companies



Stop-words removal, bigrams, lemmatize, word-frequency filters



Engagement scores, sentiment analysis and LDA



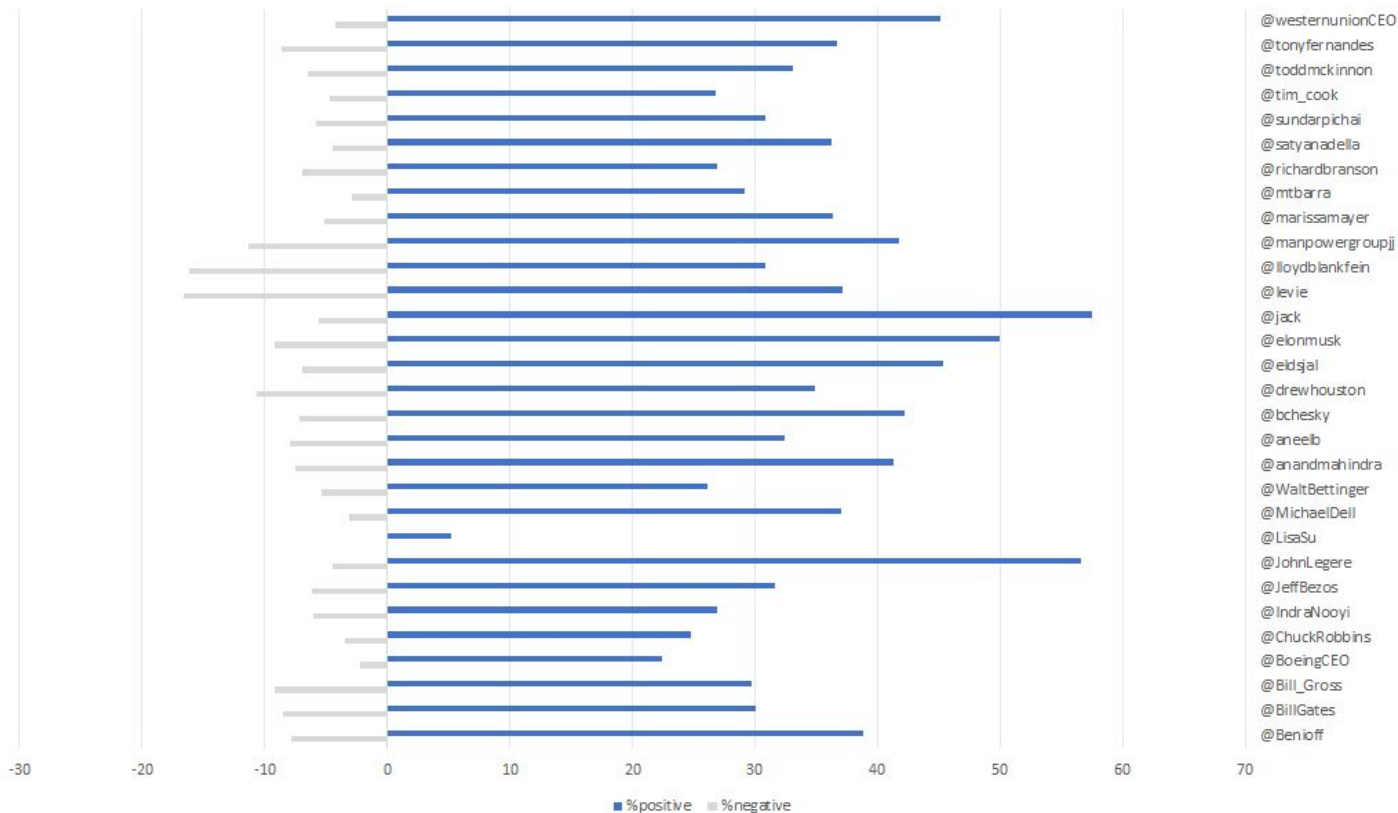
Regression with the market data



VIF and results!

Sentiment Analysis

Sentiment Analysis



Most negative: 💡

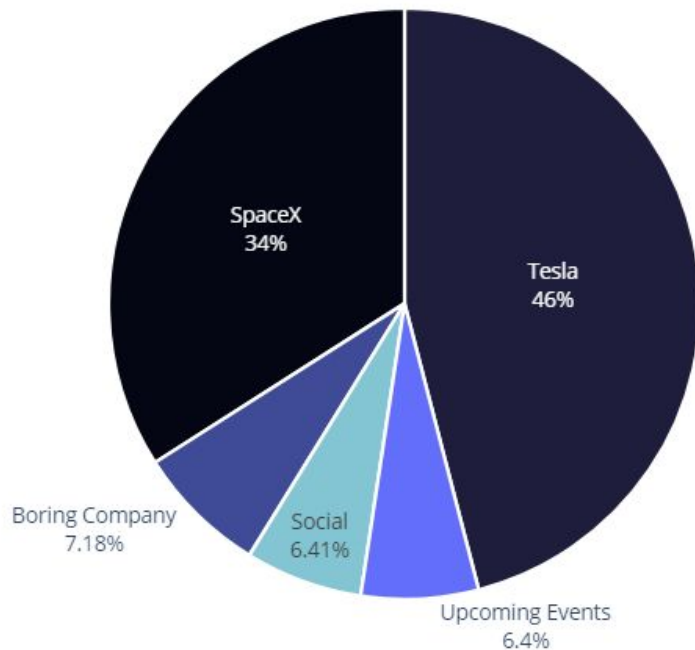
- Box (@levie)
- Goldman Sachs (@lloydblankfein)

Most positive:

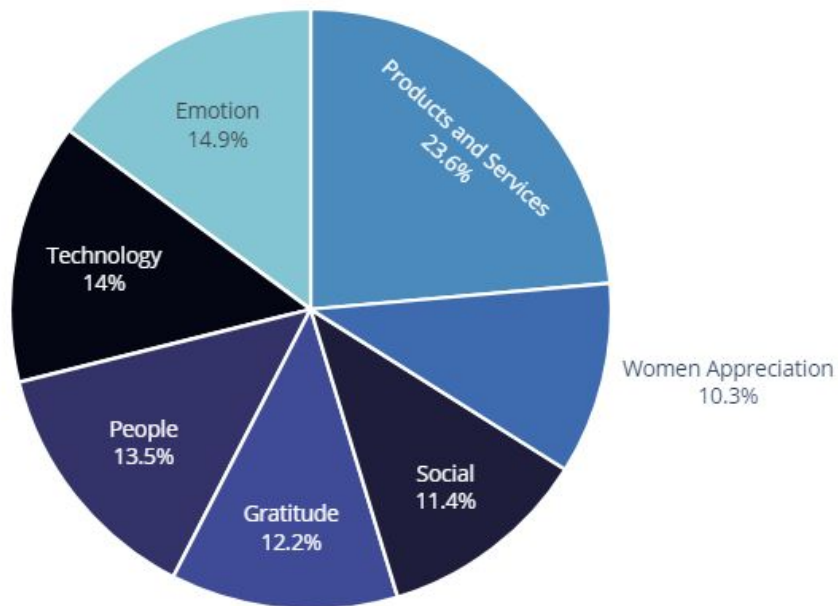
- Twitter (@jack)
- T-mobile (@JohnLegere)

Tweeting Styles

ELON MUSK



TIM COOK



CEOs - Same yet different! 💡

**Michael Dell,
Dell**

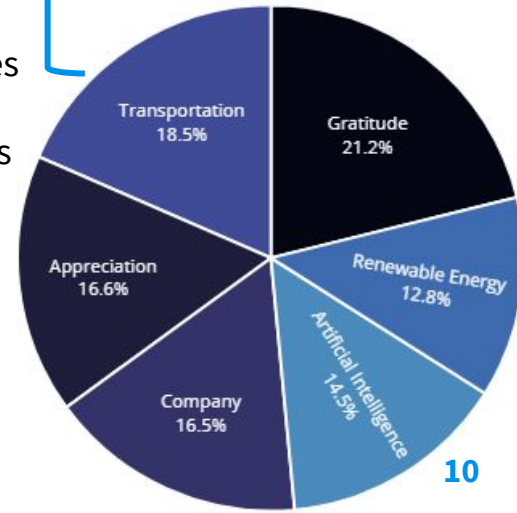
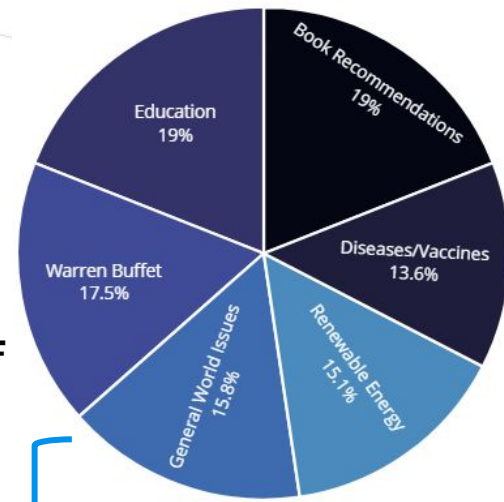
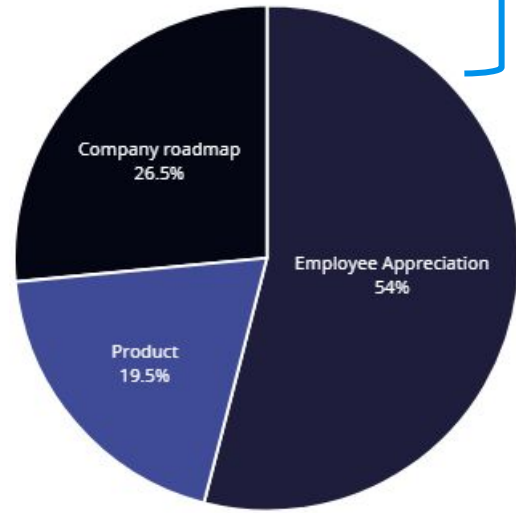
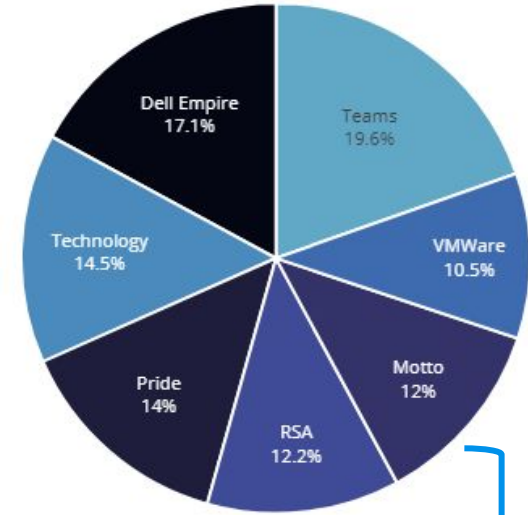
- Company products
- Team/Colleagues
- Company roadmaps
- Motivations/Mottos
- Upcoming developments in organization sector

**Dennis Muilenburg,
Boeing**

**Bill Gates,
Microsoft/B&MGF**

- Personal interests
- Gratitude & empathy
- Social causes
- Explorative technologies

**Bill Gross,
IdeaLab**



Company Map

- Elon Musk (Tesla)
- Michael Dell (Dell)
- Aaron Levie (Box)
- Sundar Pichai (Google)
- Daniel Ek (Spotify)
- Satya Nadella (Microsoft)

Company Related

- Dennis Muilenburg (Boeing)
- David M. Solomon (Goldman Sachs)
- Robert Thomson (NewsCorp)
- Brian Chesky (AirBNB)
- Richard Branson (Virgin)

Tech

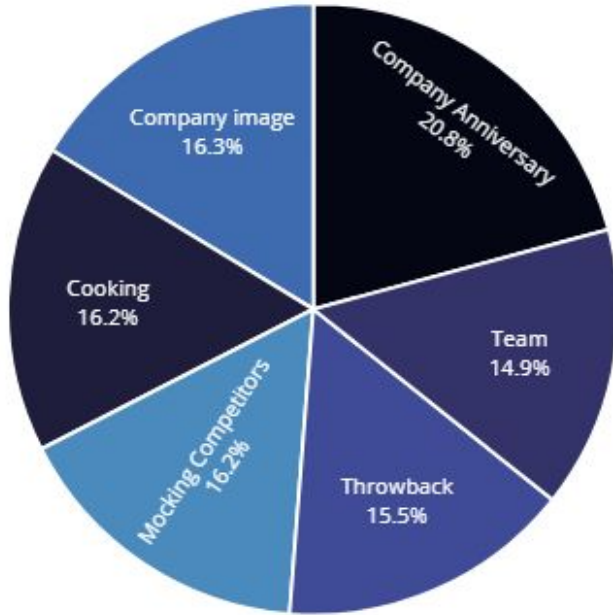
- Tim Cook (Apple)
- John Legere (T-Mobile)
- Bill Gross (Idealab)
- Drew Houston (Dropbox)
- Marc Benioff (Salesforce)
- Jack Dorsey (Twitter)

Non-Company Related

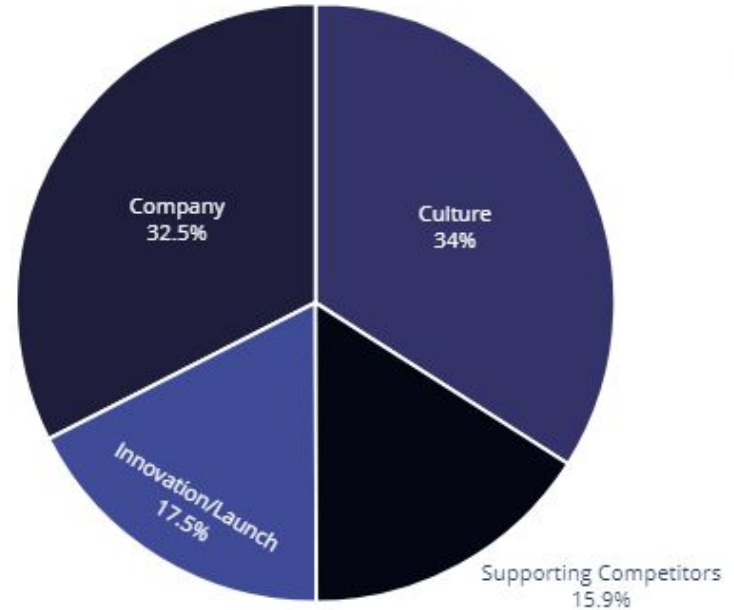
- Bill Gates (Microsoft/Bill & Melinda Gates Foundation)
- Anand Mahindra (Mahindra Group)
- Indira Nooyi (Pepsico)
- Marissa Mayer (Yahoo)

Non-Tech

Sentiment Analysis vs. Topic Modeling



JOHN LEGERE



AARON LEVIE

Market Analysis

CEO Attributes

- Age
- Compensation
- Gender
- Charisma:
 - Glassdoor approval score
 - # of Twitter followers

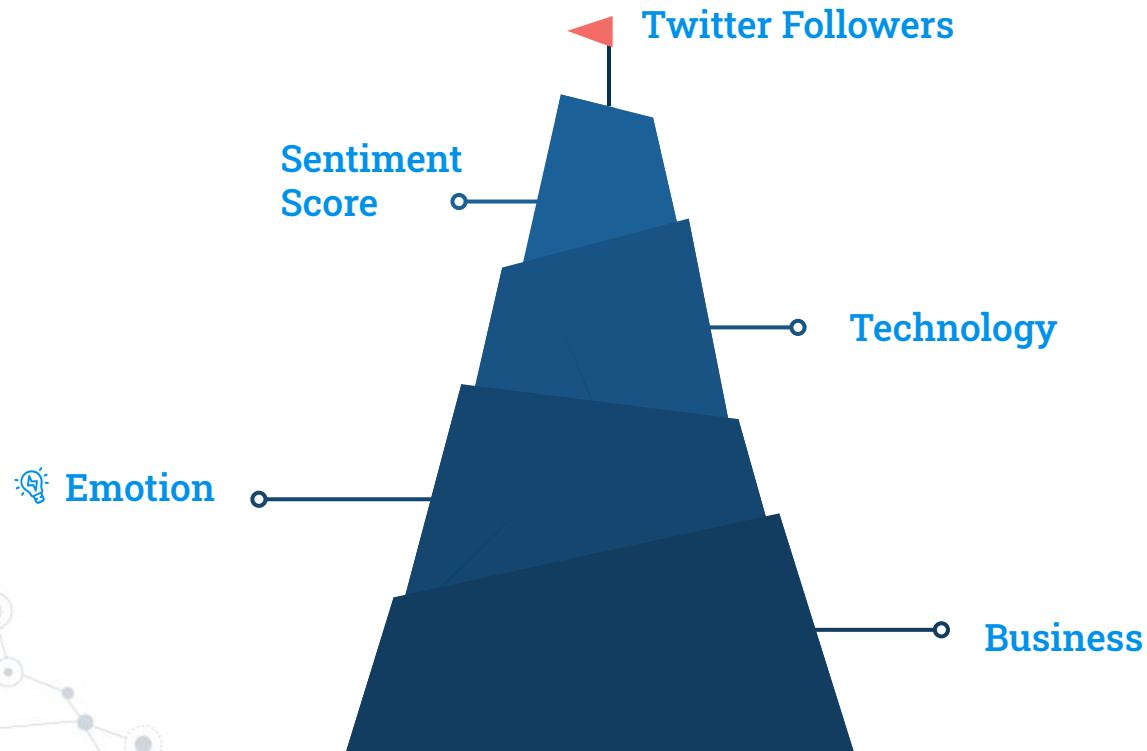
Tweet Attributes

- Tweeting style / topics
 - Personal
 - Business/Product
 - Social
 - Emotion
 - Technology
- Sentiment scores
- Retweets & Likes

Company Attributes

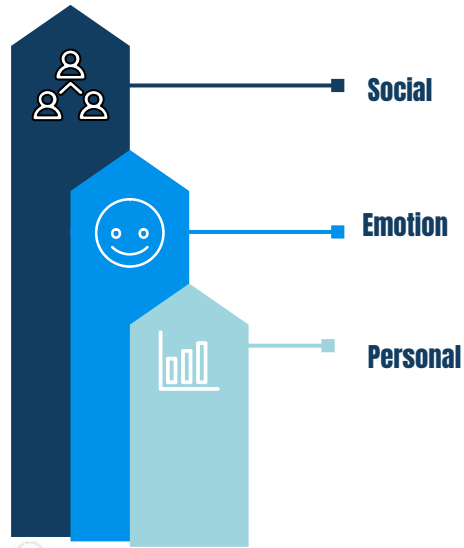
- Company statistics
 - Current Ratio
 - Cashflow
 - Cash per share
 - Outstanding shares
 - Market cap
 - Company leverage
- Daily Returns
- Volume of stock traded

Factors Affecting Stock Prices



Customer Engagement

CEO's views on social issues + company technology



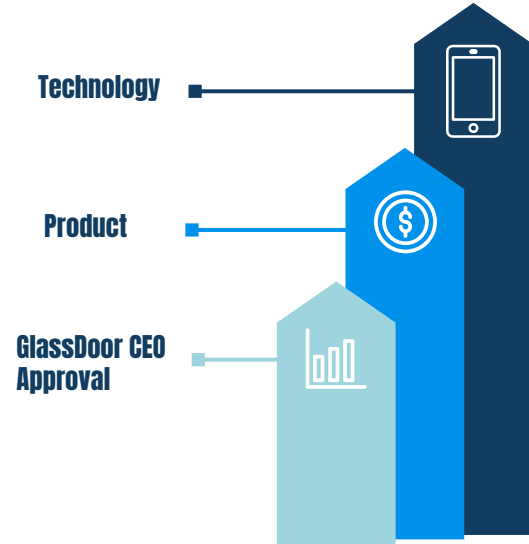
Engagement score
measured by:



60%



40%



Engagement Score IRL

Jack Dorsey's personal trip affects us 💡



Effect on Twitter's stock price



Engagement Score IRL

Elon Musk's tweets on the product and tech



Elon Musk  
@elonmusk

146k Cybertruck orders so far, with 42% choosing dual, 41% tri & 17% single motor

♡ 308K 2:54 PM - Nov 23, 2019 ⓘ

💬 33.4K people are talking about this >



Elon Musk  
@elonmusk

200k

♡ 284K 8:18 PM - Nov 24, 2019 ⓘ

💬 17.5K people are talking about this >

Effect on Tesla's stock price



Our Advice

Why?

- Higher engagement with customers & followers
- Turning the negative into the positive

What?

- Post about company → new launches, products, etc.
- Talk about current events

How?

- Relate with emotion
- Gain investor trust
- Connect with employees & customers

Potential Concerns



SENSITIVITY

The market reacts to all news. How can CEO tweets leverage this sensitivity with their tweets to increase market cap?



GLOBAL

Not all countries allow access to Twitter. What is the best way to reach customers around the globe?



LANGUAGE

CEO's tweet in a variety of languages. How can we make sure that international CEOs can influence customers speaking other languages?



Questions?

A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. Some nodes are highlighted with blue circles, and others with blue dots. The lines are thin and gray, creating a mesh-like structure.

Appendix

A decorative network diagram in the bottom-right corner, similar to the one in the top-left. It shows a network of nodes and lines, with some nodes highlighted by blue circles and others by blue dots.