Content Analysis PDW
Academy of Management Annual Conference
August 5, 2016
We use Videometrics to code and interpret a different type of text.
WE USE VIDEOMETRICS TO CODE AND INTERPRET A DIFFERENT TYPE OF TEXT
MOTIVATION

- Need to measure characteristics and perceptual effects of the decision-maker (e.g. upper-echelons)

- Classic issues
  - Reluctance to participate in research (Chatterjee & Hambrick, 2007)
  - Low response rates (Cycyota & Harrison, 2006)
  - Social desirability bias

- Classic solution: Use of proxies
UPPER ECHELONS IN STRATEGY

- Quest to look at the mind of the decision-maker

- However measurement issues due to
  - Reluctance to participate in research (Chatterjee & Hambrick, 2007)
  - Low response rates (Cycyota & Harrison, 2006)
  - Social desirability bias

- Use of proxies
THE BASIC LOGIC FOR VIDEOMETRICS

- Are CEOs public figures?
- If they are public figures, then why not use public information about them?
- We are used to coding public information (text)
  - Analysis of speeches (Winter, 1987)
  - Letters to shareholders (Chatterjee & Hambrick, 2007; 2011; McClelland et al, 2010; Short & Palmer, 2008)
BENEFITS

- Valid approach as shown by observations (third party ratings) studies in psychology:
  - “Clearer lenses” (Connelly & Hulsheger, 2010) Third party ratings have been shown in psychology to have higher validity than self-reports (Oh, Wang, Mount, 2011) and do not suffer from inflation of self-reports (Iddekinge and Roth, 2005)
  - TPR have been used in management (Zimmerman, et al., 2010; Benjamin & Shapiro, 2009; Judge et al., 2002)
- Video recordings of top executives are widely available
- Allows the use validated psychometric instruments (e.g., NPI)
- Unobtrusive, yet direct
Availability of CEO videos online is vast and growing

(I downloaded a couple last night in less than five minutes)
VIDEOS ARE AN INTERESTING TYPE OF TEXT TO CODE
Eric Schmidt – Alphabet

Michael Dell – Dell

Patricia Woetz – Archer Daniels Midland

Klaus Kleinfeld – Alcoa
**First Published Study Using Videometrics**

- Random sample of Fortune 500 firms
- CEOs held position during 2007
- Videos were selected from publically available sources
- Videos were selected or edited to avoid including references to persons’ names and/or positions held
**Videometrics: Method**

- Undergrad coders (a lot of them because)
- Measured and validated scales of 13 measures
  - Appeal: Callison et al., 2002
  - Core Self-Evaluations: Judge, Erez, Bono, & Thoresen (2003)
  - Charisma: Agle et al., 2006
  - Materialism: Richins & Dawson 1992; Richins, 1994
  - Positive and Negative Affect: Watson, Clark, & Tellegen (1988)
  - Political Skill: Frink et al., 2005
  - Proactive Personality: Seibert, Kraimer, & Crant (2001)
  - Voice attractiveness: Measured in voice frequency lab with audio of videos
**Videometrics: Method**

- Undergrad coders (a lot of them because...)
- Measured and validated scales of 13 measures
- Random assignment of raters to measures
- Raters’ training to ensure understanding
- Each rater watched a total of 9 videos
- Each video was rated by three individuals
In the first study we collected 183 videos of CEOs.

All measures have shown high reliability (.87+).

ICC (3) are significant ($p<0.001$) and high except for one measure:

- Conscientiousness

Three more papers going under review next month.
Figure 2: Growth Path Model of CEO Characteristics to Market Performance through Charisma and Assertiveness.
Figure 1: Growth Path Model of CEO Characteristics to Market Performance through Charisma and Assertiveness
Videometrics: Robustness Checks

Length of the Video

- 45 seconds, 1m 20 secs, 2m 30secs, 5m, and 10mins
- Estimated consistency and mean scores
  - ICCs rose from 45s to 1m 20s and to 2m 30s, but did not change after that
  - Means significantly different for 45s and 2m 30s, but not different between 2m 30s, 5m, and 10m
  - Established sample at 2m 30s
VIDEOMETRICS: ROBUSTNESS CHECKS

- Multiple videos of same CEO
  - Random subsample (n=32)
  - No significant differences between different videos

- Videos of individuals
  - Comparison of self-report with two 3rd party observations (a friend and a stranger)
    - All three – no significant differences
Videometrics: Second Data Collection to Create Longitudinal Sample

- 250 CEOs from Fortune 500
- Variety of psychometric characteristics
- More videos were available
  - Better quality
  - More variety of sources
  - Longer durations
TREND

- We know of other teams of researchers currently implementing videometrics.
- More videos are becoming available of executives.
- Some availability in smaller firms (not just Fortune 500).
- Not just CEOs, but other members of TMT.
- We have toyed with samples of events with videometrics (small samples and difficult to access but getting better quickly).
Questions?
Figure 1: Growth Path Model of CEO Characteristics to Market Performance through Charisma and Assertiveness.

Attractiveness

Voice Attractiveness
Pitch
Pitch Variance

Affect
Positive Affect
Negative Affect

Personality
Extraversion
Agreeableness

Charisma

Assertiveness

0.225***
0.200***
0.006**
-0.004*
0.006**
0.00
0.00
0.120*
0.97
0.06
0.182***

0.585*
-0.052*
-0.839*
0.070*

0.348***

0.04
0.04
-0.054
0.222
-0.222
Figure 2: Growth Path Model of CEO Characteristics to Market Performance through Charisma and Assertiveness

Charisma

Assertiveness

CEO Controls
  Age
  Duality
  Tenure

i

s

0.389***

0.763**

0.073*

-0.067**

-1.030**

0.073*

TQ00

TQ01

TQ02

TQ03

TQ04

TQ05

TQ06

TQ07

TQ08

Firm Controls (98)
Ind TQ Size ROA

Firm Controls (99)
Ind TQ Size ROA

Firm Controls (00)
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Firm Controls (08)
Ind TQ Size ROA
Figure 1: Growth Path Model of CEO Characteristics to Market Performance through Charisma and Assertiveness.

The model includes the following variables:

- Attractiveness
- Voice Attractiveness
  - Pitch
  - Pitch Variance
- Affect
  - Positive Affect
  - Negative Affect
- Personality
  - Extraversion
  - Agreeableness
- Charisma
- Assertiveness
- Industry
- Firm size
- ROA03, ROA04, ROA05, ROA06, ROA07, ROA08

The model shows direct and indirect relationships between these variables, with standardized coefficients indicated for each path.

**Statistical Significance Levels:**
- *: p < 0.1
- **: p < 0.05
- ***: p < 0.01