

RESEARCH BRIEFS

EXECUTIVE VOICE: A CRYSTAL BALL FOR TRUTH?

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RESEARCH QUESTIONS

When interrogating suspects, how do detectives know if they are hearing the truth or a bunch of lies? One way is by paying attention to non-verbal communication. Indeed, forensic psychologists have helped law enforcement analyze non-verbal behavior such as body language and voice tone for clues that suspects are concealing important information. Could these cues also be used in the business world to determine whether senior leaders are speaking truthfully about their firms' financials? In a groundbreaking study, William Mayew and Mohan Venkatachalam from Duke University's Fuqua School of Business explored whether executives' voices provided clues about their emotional states while reporting on company earnings during conference calls. They also examined whether these non-verbal vocal hints predicted future firm performance and stock returns as well as analyst reactions. Essentially, Mayew and Venkatachalam hypothesized that vocal cues would provide a peek into executives' emotions. And because these emotions may reflect how things are going inside the firm, they could serve as a crystal ball of sorts for predicting firms' future performance.

STUDY DESIGN AND METHOD

Mayew and Venkatachalam analyzed 1,647 earnings conference calls that took place during 2007 from 691 companies representing a wide range of industries. The calls were stored as audio files and obtained from Thomson Reuters' StreetEvents, an online archive of corporate reports and briefings. After gathering the recorded calls, Mayew and Venkatachalam analyzed the voices of CEOs and CFOs with the help of Layered Voice Analysis (LVA) software. This software detects irregularities in vocal activity while people are speaking and classifies that activity in terms of stress, excitement, deception, and other emotional states.

For their study, Mayew and Venkatachalam examined the LVA readings that assessed executives' cognitive dissonance (i.e., the discomfort and anxiety experienced when beliefs and vocal pronounce-

ments are contradictory) and their emotion level (i.e., how much excitement is being exhibited by the speaker). Given that it would be hard to know if an executive's voice is conveying unusual emotional states without knowing the "typical" emotional state of the executive in question, Mayew and Venkatachalam obtained a baseline reading of executives' normal emotional state from their introductory remarks during the conference call. They focused on the Q&A portion of the calls to assess the cognitive dissonance and the emotional level reflected in the executive's answers. Ironically, the LVA software is advertised as a security tool that can help law enforcement officials establish whether suspects are lying under questioning.

Naturally, the conversations Mayew and Venkatachalam studied weren't as intense as interrogations at police headquarters. However, when analysts raise questions about why earnings were below expectations, executives may try their best to maintain a polished composure while simultaneously experiencing negative emotions (if they are disappointed) or cognitive dissonance (if they feel forced into putting a positive spin on organizational initiatives that they privately feel are doomed to failure).

To assess whether executives' emotional state (as measured by LVA software) had any bearing on stock prices, earnings, or analysts' forecasts, Mayew and Venkatachalam analyzed performance data for all of the firms involved over two subsequent quarters. In addition, they examined firm-issued press releases from news wires over 180 days following the conference calls.

KEY FINDINGS

The results of this study are compelling. Mayew and Venkatachalam indeed showed that the voices of executives can provide important clues about the financial prospects of their firms. When executives answered questions, their voices conveyed important information about their emotional state that seem to predict their firms' future profitability and returns. For instance, executives' levels of emotional

excitement and cognitive dissonance predicted future unexpected earnings (2 quarters out). Specifically, when leaders were excited or in a positive emotional state, the stock went up, earnings rose unexpectedly, and firms put out positive news releases in the following six months. Conversely, negative emotional states predicted dips in the stock prices and firm performance.

One curious finding from this study was that analysts tended to respond asymmetrically to executives' answers, reacting more to positive, rather than negative, vocal cues. When executives' voice expressed positive emotion during the Q&A portion of the conference calls, analysts tended to incorporate this information and adjust their stock recommendations upward. On the other hand, calls that conveyed negative emotions from executives were not associated with adjustments in analysts' stock recommendations—possibly because analysts may not have realized that executives were vocally expressing cognitive dissonance. Consequently, they failed to notice that executives might have had something to hide. Alternatively, it may be that analysts did detect executives' negative vocal cues, but didn't want to revise their stock recommendations without doing additional research to confirm any negative information before making a change. Yet another possibility is that analysts and investors tend to be overly optimistic by nature or are biased toward focusing on positive emotional clues because it is in their self-interest to have good news about the firms that they follow.

CONCLUSIONS AND IMPLICATIONS

Savvy company leaders are experts on making careful presentations and coming across as level headed so that they will not upset their shareholders, investors, and employees—especially in tough times. On the other hand, executives will have an easier time controlling the words they say than what they express nonverbally with their voice. Indeed, our genuine emotions may slip out in subtle ways. Moreover, the results of this research support the argument that it would be wise to listen for non-verbal messages that may provide clues to the emotional states of corporate leaders, and, consequently, the likely direction of a company's financial fortunes.

Indeed, listening to conference calls where executives respond to questions may be much more informative than merely reading transcripts or summaries written by analysts or financial reporters. Psychologists have known for a long time that

only a portion of a message is communicated in its verbal content, while significant information is conveyed in non-verbal attributes such as the tone and pitch of a voice. As such, investors and analysts may want to undergo training to assess non-verbal communication if not how to use the LVA software that can help decipher executives' vocal clues.

Clearly, this research is limited by the fact that the jury is still out on the validity of the LVA software as it applies to the management issues examined by Mayew and Venkatachalam. In addition, assessing the legitimacy of this type of approach will require nailing down the changes in brain activity that reflect neuropsychological reactions to questions that have implications for company success (or lack thereof). Naturally, brain activity is something that falls outside of the purview of most management scholars. In psychology, brain science has continued to grow in its acceptance as a relevant area for understanding psychological phenomena. Perhaps management scholars will follow this trend in the years ahead.

Although Mayew and Venkatachala's research highlights new potential applications of brain science to management scholarship, it also supports a classic notion: nonverbal communication can carry messages that are more powerful than the actual spoken words spoken. This leads one to wonder whether some of the shocking financial difficulties facing many of the "too big to fail" firms during the great recession might have come to light earlier had analysts and financial reporters been able to listen more closely for cognitive dissonance and negative affect in the voices of executives leading these companies.

Moving forward, Mayew and Venkatachalam suggest that this line of research could help financial forecasters better analyze presentations of policy makers like the Federal Reserve Chair when trying to predict changes in interest rates or new rounds of quantitative easing. On the other hand, perhaps this research could also be leveraged by shrewd business leaders who will focus on becoming better actors—and demonstrating more control over any dissonance or negative affect that might be leaking through in their voice.

REFERENCES

- Mayew, W. J., & Venkatachalam, M. 2012. The power of voice: Managerial affective states and future firm performance. *The Journal of Finance*, 67: 1–43. doi: 10.1111/j.1540-6261.2011.01705.x