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Investor Relations

‘Extreme Language’ in Earnings Calls Linked to Outperformance

Executives sway investors by using strong language to convey conviction about their expectations for future operating performance, academic study finds.



By David McCann



“It’s been five full years since I called BS and declared war ... against [this] stupid, broken, arrogant industry.... We have great financial results [and] very strong free cash flow.”

What to make of extreme language like that from the transcript of [a top company executive](#) in an earnings call? Hype? Bluster? Refreshing dose of reality?

A new study finds that “investors appear to largely treat extreme language as an informative signal, as it stimulates significant trading activity and generates strong price reactions.”

Further, such language is not principally a reflection of management style or a way to spread hype or mislead investors, according to the paper in March issue of *The Accounting Review*, a peer-reviewed journal of the American Accounting Association

Rather, it “is positively associated with future earnings and sales. In contrast, moderate language exhibits no or weak association with future performance. [Managers] appear, on average, to use extreme language to convey information about future operating performance.”

The effect of strong language is substantial, according to the research, by Khrystyna Bochkay of the University of Miami, Jeffrey Hales of the University of Texas at Austin, and Sudheer Chava of Georgia Institute of Technology.

Enlisting people through a crowdsourcing Internet marketplace to judge the linguistic extremity of words uttered in [earnings calls](#), the researchers found that a mere 1.33% increase in extreme words conveying optimism results in about a 6% increase in a stock’s trading volume and a 0.63% price boost over three days.

As the study notes, these increases are above and beyond those attributable to actual financial results, as well as those attributable to the linguistic tone of executives’ comments, as measured by proportions of positive to negative words.

Thus the paper took a sizable step beyond a large body of research on the effects of linguistic tone in various kinds of financial reporting. Prior studies focused on the relative preponderance of positive and negative words without considering how strongly expressive they were.

The research also found that the extra boost in share price that occurs when extreme language accompanies positive earnings surprises is not just a temporary blip. On the contrary, the three-day increases are largely sustained over time.

Analyzing cumulative buy-and-hold investor returns in the 60 trading days following earnings calls, the professors observed “no significant drifts or reversals in prices, suggesting that investors price the information in extreme language correctly.”

Extending their analysis further to the relationship of linguistic extremity to one-year-ahead earnings and sales, the study reported extreme language to be positively associated with both.

What about conference calls when earnings fall short of forecasts? Strong expressions of optimism can to some extent be effective then too, the research found, helping limit shareholder losses.

In addition to its impact on investors, linguistic extremity significantly affects professional stock analysts as well. The professors found that it increased both the magnitude of forecast revisions and the proportion of analysts undertaking revisions.

The study's findings derive from a massive effort at linguistic analysis that involved categorizing words in transcripts of 60,940 earnings calls, including both introductory remarks and Q&A sections.

Individuals from an Internet [crowdsourcing](#) marketplace that is frequently used in social-science research were tasked with ranking by linguistic extremity nouns, verbs, adjectives, and short phrases. The result: a dictionary of 23,355 words and phrases, each scored on a scale of -5 (strongly negative) to +5 (strongly positive). Examples:

- +5: terrific, excellence, incredible, amazing
- +3: solid, effective, accomplishment, strengthen
- +1: competitive, encourage, steady, transparency
- -1: limitation, heavy, undue, step back
- -3: difficult, volatile, underperform, unfavorable
- -5: terrible, default, devastate, worst

With ratings in hand, the researchers constructed ways to measure the proportion of linguistic extremity in transcripts, defining positive extreme words as those scored at +4 and +5 and negative extreme words as those at -4 and -5.

They then set about analyzing the relationship of ratings to short-term stock-trading volumes and price movements as well as to longer-term measures of stock returns, company financial performance, and analyst activity.

The professors see their findings as potentially valuable for investors and managers alike. "While investors might be naturally suspicious of strong language from corporate managers, particularly when it is of the optimistic variety," says Hale, "our study cautions against rejecting it out of hand, as more often than not it reflects managerial conviction

He adds that CEOs, CFOs, and other corporate managers involved "might want to resist pressures from their legal departments to dampen their language when circumstances seem to warrant speaking out strongly."