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Failing the sniff test: Researchers find new way to spot fraud

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Companies that commit fraud can find innovative ways to fudge the numbers, making it hard to tell something is wrong by just looking at their financial statements. But research from North Carolina State University unveils a new warning system that sees through accounting tricks by evaluating things that are easily verifiable, such as the number of employees or the square footage that a company owns. If a company says that its profits are up, but these nonfinancial measures (NFMs) are down, that's a sign something is probably wrong.

"Some companies commit financial statement fraud, and a good portion of those overstate their revenue," says Dr. Joe Brazel, an assistant professor of accounting at NC State and co-author of the research. "They're able to do that because they can manipulate the accounting. But there are NFMs that can't be manipulated as easily." These NFMs include the number of employees, as well as industry-specific measures, such as the square footage of facilities in the manufacturing sector, the number of retail outlets in the retail sector or the number of hospital visits in the hospital industry.

Brazel explains that companies may fraudulently claim inflated revenues in order to meet market expectations and maintain, or improve, their stock price - as well as protecting company management from criticism.

But, Brazel says, "when these firms commit fraud, we found a huge gap between their reported revenue growth and related NFMs - their revenue was up, but the NFMs were either flat or declining. And when you looked at their competitors, you see revenue growth and NFMs closely correlated. So when you see that gap, it's a red flag - you need to take a closer look."

For example, Brazel says that researchers found a difference of approximately 4 percent between revenue growth and employee growth in companies that did not commit fraud. The difference between revenue growth and employee growth in fraudulent companies was 20 percent. "It's pretty obvious, when you look at it," Brazel says.

Furthermore, the NFM data are easy to find. Brazel explains that each company's NFMs and revenue numbers are disclosed in the same financial filings, which the company is required to submit each year to the U.S. Securities and Exchange Commission.

The researchers evaluated 220 companies when evaluating employee growth versus revenue growth - 110 companies that were known to have committed fraud between 1994 and 2002, and 110 that had not. Similarly, they looked at 100 companies when evaluating other NFMs, 50 fraudulent and 50 that had not committed fraud.

The researchers are now in the process of developing an online tool that will perform the NFM analysis, as well as conducting experimental studies with auditors to help detect fraud and with investors to help make wise investment decisions.

More information: The paper, "Using Nonfinancial Measures to Assess Fraud Risk," was co-authored by Brazel, Dr. Keith Jones of George Mason University and Dr. Mark Zimbelman of Brigham Young University. The work will be published in the *Journal of Accounting Research* later this year.

Source: North Carolina State University (news : web)