

Securities regulators estimate fraud totals of approximately \$40 billion each year.

Risk Management Using Event Intensity



monograph

solution

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► CHALLENGE

Is it possible to use technology to detect trading anomalies that may be the outcome of a fraud scheme or viral attack?

► STRATEGY

It is possible to measure the “intensity” of reaction to company news and correlate that to stock volumes. Skew points can detect the possibility of fraud.

► STRATEGY

Another use of the system is to provide “checks and balances” for analysts. It shifts the focus away from creating stock momentum and makes the analysis more objective.

► STRATEGY

Beyond detecting fraud in the markets, the same system may be able to pinpoint the genesis or events that started the scheme in motion.

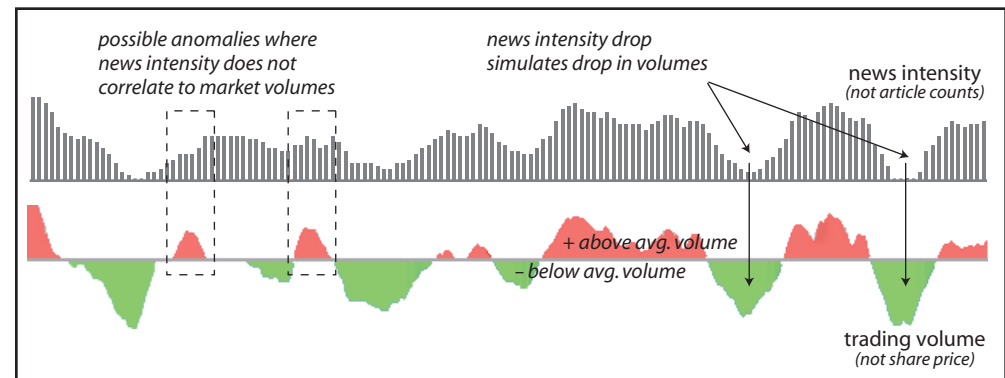
Scientists have determined that people assign more importance to bad news than good news, thereby driving a quicker and more intense reaction. There is no better place to see this phenomenon than the stock market.

“Pump and dump” is not the name of a new rock band, nor does it have to do with stealing gasoline. But it is a crime. Just like “short and distort,” both are designed to artificially manipulate the price of a stock, one upwards and one downwards, providing significant gains for those doing the manipulation. And the entire scheme is driven by one thing, rumors.

Minute-by-minute market coverage in the media has been a boon for momentum investors. And technology has almost created a scramble response to trading stocks. But technology may also provide a solution or at least an early detection system for fraud in the same markets.

At Inforonautics, our hypothesis is that irrational market behavior is not 100% random and news plays a very strong role in creating the necessary noise to drive market volatility. If good or bad news never leaves the boardroom, will there be an effect on the stock? Yes, but we believe in a more muted way and with less “herding” behavior.

On the surface, it’s pretty easy. Just track the amount of news coming out on a public company and correlate it to market volumes — the higher the acceleration of news, the sharper the spike in volume. Right? Not



exactly. To make the system work, the computer needs to read each article, weigh it’s relevance to stock volatility, take into account the article source and monitor overall industry instability. And this has to happen in real-time.

With the right engine, a risk management program can be built to monitor when volatility is driven by rumor, email spamming or other criminal behavior. It can also detect a viral attack on a firm’s client accounts.

The implications for this type of system go way beyond risk management. Imagine what an analyst could do with this type of real-time analysis. And combined with the principles of technical and fundamentals analysis, this

trifecta may be the next great trading system. The key to all this is that news articles must be reduced to numbers that can be quickly calculated and analyzed. Inforonautics is uniquely qualified to provide this capability.

Unfortunately, this is a great time for fraudsters. Someone was recently quoted as saying that fraudsters who don’t use technology should be sued for malpractice. With the boom in baby boomers, the accessibility of email addresses and the rise in momentum trading, it’s time to use the same computers to detect and fight crime.



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