Navigating a new era of financial Information

Rotman
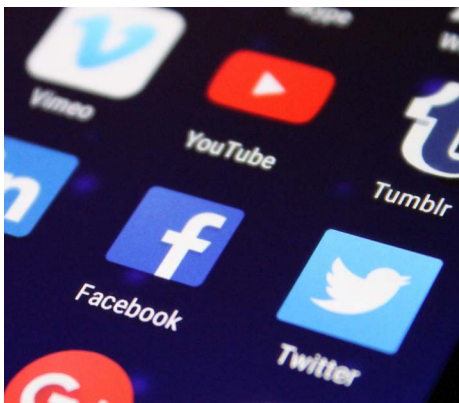
Financial-market analysts long enjoyed privileged access to company information. Now that technology has democratised access, accountants and market participants must learn to command a torrent of data from social media and other sources.

About the study

"How social media is transforming the information environment"

Author:
Professor Partha Mohanram,
John H. Watson Chair in
Value Investing

Published by:
CPA Ontario Centre for
Accounting Innovation
Research, Rotman School of
Management, University of
Toronto

TOP SELL-SIDE FINANCIAL ANALYSTS OF THE 1980s lived by their rolodexes, desk telephones and newspapers such as the *Wall Street Journal,* using preferential access to management and conference calls to write reports that other less connected analysts could not match. Times have changed. Life for the "star" analyst is far less simple, with a large range of data repositories, investor-relations websites and news sources to follow. And that's even before considering social media and crowd-sourced analysis sites like Seeking Alpha. Regulation Fair Disclosure and open-access conference calls have limited well-connected analysts' privileged access to information, and big-data analytics techniques compete with human brainpower to analyze the flood of available information.

In a white paper produced at the CPA Ontario Centre for Accounting

Innovation Research in the Rotman School of Management, Partha Mohanram investigates how the information environment surrounding financial markets has changed with the advent of the internet and social media. Shifts in how information is disseminated have both benefits and risks for publicly listed firms, intermediaries and investors in financial markets. They also matter for those who produce information and manage its flow, including accountants, regulators and the media.

Mohanram notes how the internet reduces the power of intermediaries by facilitating information flows and "direct interaction between economic agents". For example, the emergence of low-cost online trading has reduced the influence of brokerages, while global communication and market access have lowered borders between financial markets.

Regulatory changes to level the information playing field

Regulators have responded to the rise of digital technology by facilitating greater access to financial information. In the United States, the Securities and Exchange Commission (SEC) in 1996 created EDGAR (Electronic Data Gathering, Analysis, and Retrieval), an electronic repository of financial statements that all listed firms must now supply their filings to. Canada has equivalent data sources such as the SEDAR database. This easy access to information has benefited retail investors

with research showing that the availability of 10-K reports on EDGAR has increased the number and profitability of small trades made.

The SEC's Regulation Fair Disclosure (Reg FD) requires firms to give all investors access to material information at the same time. This has levelled the playing field for analysts, increasing their workload and forcing them to reduce their coverage. But it has also encouraged analysts to deliver forecasts and reports that offer more unique value, incorporating specific insights and shifting their attention to less-covered firms.

Navigating a new era
of financial Information

Rotman

The effects of peer-to-peer sharing and social media on stock prices

Before the emergence of social-media platforms like Facebook and Twitter, investors were sharing information with each other on sites like Yahoo! Finance, Silicon Investor and Raging Bull.

➔ Researchers found that greater activity on Yahoo! and Raging Bull was associated with increases in return volatility, but not in returns.
➔ One study has shown that investment reports on the Motley Fool predicted stock returns.
➔ Greater search activity on Google predicts higher near-term stock prices, followed by reversals.
➔ The internet also sees information included in prices earlier, based on research that found a reduced relationship between earnings and returns when Google search volumes on a firm are high.

But "by far the biggest revolution in the dissemination of information on the internet has been the advent of social media platforms such as Twitter," says Mohanram. Twitter's short message format and easy search for stock symbols using the dollar sign for "cashtags" (e.g. $AAPL for a tweet related to Apple's stock) make it especially well-suited for posting views about stocks to a wide audience.

Twitter is not an unmitigated boon: Mohanram cites examples of potential stock-price manipulation through false tweets. But analysis of aggregated tweets on index component stocks such as the S&P 500 can be "significantly associated with the levels, changes and absolute changes in the index". Higher social-media activity on Twitter and StockTwits can be linked with greater sensitivity of earnings announcement returns

to earnings surprises. Citing his own research, Mohanram notes that aggregate sentiment from tweets can predict earnings announcements and related returns.

The appeal of Twitter as a source for analysis inspired the creation of investment funds that make decisions based on social-media sentiment, and analytics products that use it to provide early insights. The SEC has also approved Twitter, along with Facebook, as a channel for communicating corporate announcements including earnings.

The implications of big data for issuers and investors

Mohanram also surveys the emergence of platforms such as Seeking Alpha and Estimize, which publish crowdsourced analyst reports, and the use of big-data analytics in capital markets and academic research. Analytics "is the backbone of work done by social-media aggregators and other data providers who are transforming capital markets" by turning information of high volume, velocity and variety into valuable insights.

This will transform managerial and financial accounting, and financial reporting practices. Internally, big-data analytics will improve management control systems and budgeting, increase the transparency and relevance of accounting information, and aid in the creation and refinement of accounting standards. It can also strengthen audit processes.

The power of computer analysis to find hitherto unseen patterns across large data sets, or with new methods, will require managers and analysts to carefully consider what they may be unintentionally communicating by how they deliver the information they provide.

For example, the vocal tone of a chief executive during a conference call can contain clues about future earnings that human analysts cannot recognize without the aid of computers.

While grappling with big data, listed firms also find themselves having to maintain a presence on social media to communicate with analysts and retail investors. They must monitor crowdsourced reports on Seeking Alpha and Estimize, and stay compliant with Reg FD by not giving preferential access to information.

Sell-side analysts are pressed to deliver unique value in a leveled information environment. And, buy-side participants in markets, such as investment managers, now find it harder to generate excess returns, particularly from strategies based on fundamental analysis. Among their options in seeking a new edge is to use data science and big-data analytics to mine the vast amounts of publicly available information for insights, particularly from social media. Paradoxically, retail investors, while having more equal access to information than before, may find it harder to take advantage of advanced analysis techniques than institutional players.

Navigating a new era
of financial Information

Rotman

Increased responsibilities for accountants and auditors

Accountants will find themselves having increased responsibilities to monitor the information that firms issue publicly. Auditors may need to keep track of social-media feeds along with standard regulatory filings. Internal auditors will have to consider the risks of information leakage, reputational damage, third-party risk and governance risk involved in firms' participation in social media.

At the same time, accounting educators, audit firms and professional bodies for accountants will have to help train professionals in new tools and techniques. The Rotman School's CPA-track accounting program now makes students take a course on data analytics, and the updated audit course sequence now covers the use of analytics in auditing. The CPA Ontario Centre for Accounting Innovation Research, also at Rotman, has supported the exchange of knowledge between researchers and practitioners through conferences focused on a variety of pressing topics such as big data analytics, machine learning, blockchain, disruptive technology and governance.

Changes to the information environment for financial markets since the 1980s have been disruptive for analysts, investors and accountants, particularly those deep into their careers. But professionals must change with the times, which includes the emotional task of letting go of old ways of working. In exchange, they have the chance to learn and use new tools and skills that will give them the power to process, understand and contribute to the torrents of information now associated with financial markets, for the benefit of clients, employers, investors and stakeholders.

KEY TAKEAWAYS

Data analytics is transforming managerial and financial accounting, and financial reporting practices.
Internally, big-data analytics will improve management control systems and budgeting, increase the transparency and relevance of accounting information, and aid in the creation and refinement of accounting standards. It can also strengthen audit processes.

Auditors must now pay attention to social media.
With social media now accepted by regulators as a way of communicating to investors, auditors must keep their eye on firms' feeds as well as their standard filings. Internal auditors have to manage risks of information leakage and reputational damage, third-party risk and governance risk.

Accountants will need training in the latest tools and techniques.
To help accountants understand and contribute to the torrents of information associated with financial markets, educators, accounting firms and professional bodies will need to provide training, especially in data analytics.

To read more on the implications for firms, analysts, institutional and retail investors, the media, regulators and researchers, consult the full paper at https://uoft.me/Financial-Information