

RESEARCH REPORT

**THE EMERGING ROLE OF NEWS FEEDS FOR
ALGORITHMIC TRADING & ADVANCED DECISION SUPPORT**

Attitudes and Expectations

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EXECUTIVE SUMMARY

Is news “new?” In a sense, yes. Being first to take advantage of a piece of news has always been essential to traders and investors. Today, however, the overwhelming volume and ever-shrinking time available to react to it profitably has posed mounting pressure on trading desks, portfolio managers and analysts to cope with these challenges. Fortunately, technology is making it feasible to handle more news in less time in ways that were barely conceivable a few years ago. Newly available technologies and techniques are giving traders and investors innovative ways to use automation (such as complex event processing engines) to allow them to incorporate news into their strategies. These enable them to exploit market opportunities and inefficiencies driven by news events and it helps them reduce their exposure to event risks.

There are many emerging uses of IT-driven news analysis that traders, portfolio managers and analysts will be able to use. For instance, automated news analysis can be a core component driving algorithmic trading desks’ strategies and execution. For these users, automation can substantially shorten the time it takes them to react to breaking stories. At the same time, analysis of past impacts of news items on a wide set of securities can give them a better understanding of the wider trading implications of a news event. For example, a given type of announcement by company ‘A’ in industry ‘X’ will have a positive impact on company ‘B’ and industry ‘Y’. Combining broader analysis with faster execution gives these organizations the ability to create a whole new set of proprietary strategies.

At the other end of the spectrum, automation will handle much of the routine monitoring and mechanical analysis that fundamental investors now do manually. This will allow these lower-frequency traders to focus on what they do best: stock picking and other investment-related decisions. They also will find that it can help mitigate the mounting risk of a loss or missed opportunity because they overlook some event, especially one that today would be considered tangential to a portfolio holding.

The need for automating the use of news feeds also has grown as global financial markets have become ever more integrated. The scope of the news that is important as well as the impact it can have is that much wider. There are several components that are raising the challenge to all market participants:

- The proliferating number and complexity of financial instruments
- Proliferation of news sources – both traditional and new media ones (such as blogs)
- Use of more extensive multi-factor models based on a wide range of data sources
- Faster, more nimble electronic trade execution
- The ability of IT systems to handle ever increasing amounts of information

These and other factors make successful trading and investing that much more challenging. The simple truth is that for an increasing number of firms, relying solely on individuals to find opportunities, spot risks, make accurate assessments and decide what to do about it is no longer adequate.

Ventana Research conducted research into the opinions and attitudes of trading and investing professionals regarding the use of automated news analysis in the investment process. We found a majority of the investment professionals think that automating trading on news will help their performance and that it is important to their ability to exceed or at least match the performance of their competitors. Key findings include the following:

- A majority think that automating trading on news will help their performance, by enabling them to create profitable trading strategies and not miss important events.
- From a competitive standpoint, participants recognize the importance of using automation to exceed or at least match their competitors' capabilities.
- Most believe their organization could benefit from analyzing the tone of news articles.
- A majority think they would refine their existing models rather than create new, news-only ones.

ABOUT THE RESEARCH STUDY

Ventana Research recently conducted a study into the opinions and attitudes of trading and investing professionals regarding automating news analysis. There were 113 qualified participants in the research. The group represented a diverse set of respondents: 38 percent work in buy-side firms (investment management, hedge fund or private equity/venture capital), 37 percent are on the sell side (investment bank or broker/dealer), and the remaining 25 percent work in other types of organizations.

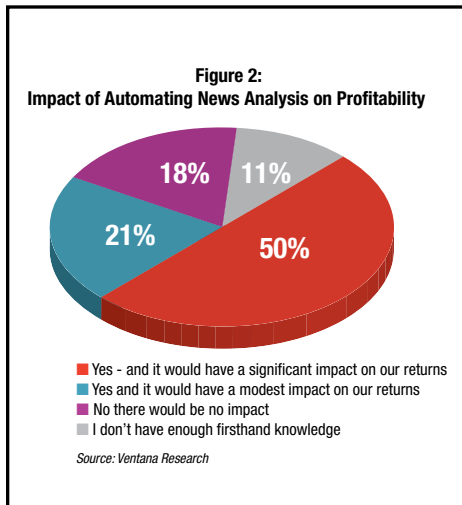
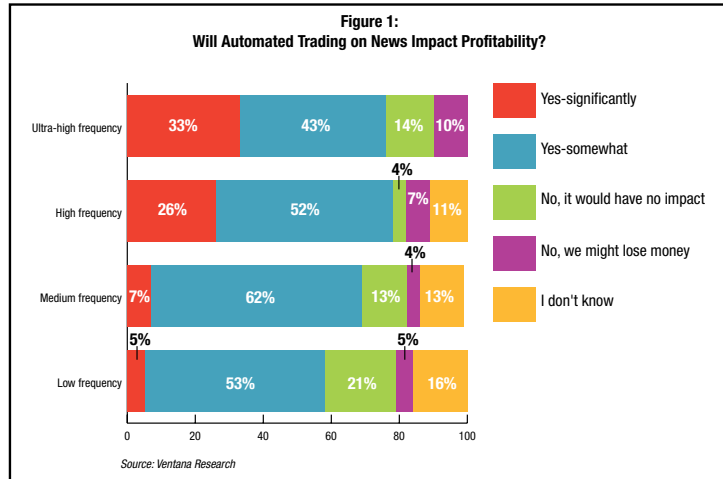
In terms of scope, about one-third (36%) of the participants' organizations have a single trading desk, another 52 percent have multiple desks, and the remaining 12 percent have some other configuration. In terms of trading style, 18 percent described their organization as ultra-high frequency, 24 percent high frequency, 41 percent medium frequency and 17 percent low frequency. More than half (57%) describe their investment and trading style as fundamental, another one-third (35%) as quantitative and 8 percent as statistical arbitrage.

A majority (58%) of the participants work in firms with fewer than 100 employees, 22% are in organizations with between 100 and 999 employees, and the remaining one-fifth are in companies with 1,000 or more employees.

AN OPPORTUNITY TO IMPROVE PERFORMANCE

IMPACT OF AUTOMATING NEWS ANALYSIS ON TRADING PROFITS

Two-thirds (65%) of all participants in this research declared that they can increase their trading profits either significantly or somewhat by automating trading on news. But here trading style matters. As **Figure 1** shows, one-third of the ultra-high-frequency traders and one-quarter of the high-frequency traders think they can significantly boost these profits, compared to only six percent of the medium- and low-frequency traders. This divide between higher- and lower-frequency traders may be the case initially, if one thinks of applying news analysis in its most obvious use – to speed response to events. However, as noted above, the potential value of news analysis extends beyond being able to achieve a faster response. It includes defensive applications such as ensuring that stories are not missed and using news analysis as a more effective form of decision support to reduce the time required for low-frequency fundamentals traders to assess their options manually and execute their responses.



ABILITY TO CREATE PROFITABLE STRATEGIES

Most participants also said that they can create profitable trading strategies using proprietary analysis of news feeds (**Figure 2**). One in five (21%) said it could have a significant impact on their overall trading profits, while half of the participants said it could add modestly to them. Only four percent said that it would be a money-losing effort; 17 percent said it would have no impact. For those 4% who expressed skepticism about the potential to use automated news analysis successfully, the two reasons given most frequently were that a system is just as likely to be wrong as right and that the approach is as yet unproven.

IMPACT FROM RARELY MISSING A STORY

Another benefit from automating trading on news feeds is that it can protect portfolio managers or traders from the consequences of missing important news that has an impact on their position or portfolio. Most participants (79%) in this research said that adopting such automated trading would have a positive impact on their returns or profitability. But trading-frequency style again has an impact on this assessment. One-fourth of those who described themselves as ultra-high- and high-frequency traders said the impact would be significant, while only 9 percent of the medium- and low-frequency traders said this would be the case.

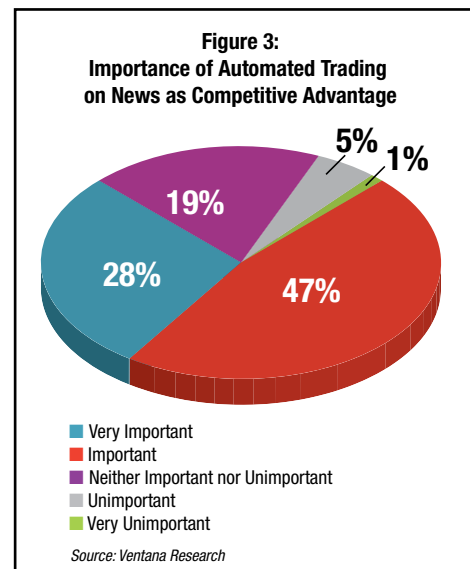
IMPORTANCE TO RISK SYSTEMS

Automating news-handling also can affect performance by enabling more effective management of risk. A substantial majority (82%) of the participants said using automated news analysis for risk mitigation is important or very important. There was little difference in response between buy-side and sell-side points of view; those working in organizations whose scope is a single trading desk were less likely to say that it is very important than those with more extensive operations.

COMPETITIVE ASPECTS OF AUTOMATED TRADING ON NEWS

AUTOMATED TRADING FOR COMPETITIVE ADVANTAGE

Can automated trading on news provide a competitive advantage? We asked participants how important it would be to incorporate news analysis into their trading algorithms to maintain competitive advantage. As shown in **Figure 3**, more than one-quarter (28%) said it is very important, while about another half (47%) said it is important. Almost all (82 percent) of the trading-desk participants who described their style as ultra-high frequency said that doing this is important or very important to maintaining competitive advantage. Nearly as many (71 percent) of those at high-frequency desks said the same, in contrast to those with a low-frequency trading style, just half of whom called it important or very important, and one-quarter who said it is unimportant or very unimportant. Companies with global trading operations and those operating multiple desks in a single country were more likely to say it would be very important to incorporate news analysis in their risk systems than those with a single trading floor or single desk (25 percent vs. 18 percent).



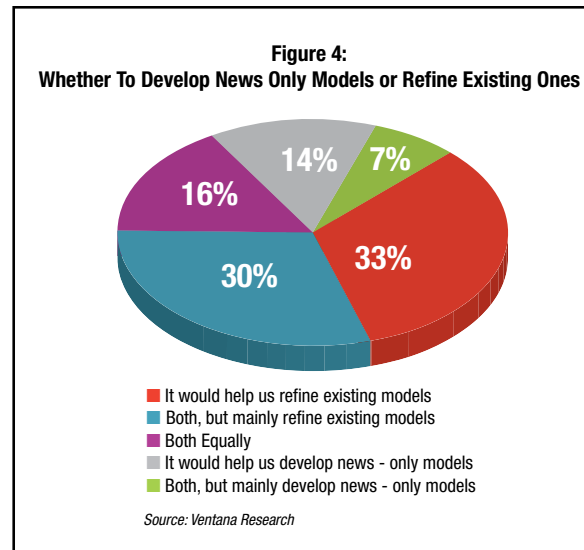
IMPORTANCE OF MATCHING NEWS ANALYSIS FOR COMPETITIVE ADVANTAGE

We asked about the importance of matching news analysis capabilities from a competitive standpoint. At this stage of the development of the technology, participants said that it is important. Overall, 18 percent said it is very important competitively, and 45 percent said it is important, while one-fourth (24%) were neutral, saying it is neither important nor unimportant. There was little difference in response when analyzed in terms of the frequency with which participants trade or whether they are on the buy or the sell side.

HOW TO INCORPORATE NEWS TRADING STRATEGIES

DEVELOPING AND REFINING MODELS

Do people expect to use news feeds for designing novel “news-only” algorithmic trading models or in refining the design and use of existing models? At this point, a majority see it mainly as a way to refine existing models (see **Figure 4**). One-third of participants (33%), on the other hand, told us using news based trading would help only to refine existing models, and another 30% indicated that while it could do both, they would use it mainly to refine existing models. Only 14 percent said it would be used to develop algorithmic, news-only models, and 7 percent said it could help with both but mainly with news-only models. There was a buy-side/sell-side difference, with 67 percent of the former saying it would be used only or mainly to refine existing models, compared to 57 percent on the sell side.



BENEFITS OF ANALYZING TONE

News analysis doesn’t have to generate triggers based on facts alone. It is possible to create scoring of the news that analyzes the tone of textual commentary. Here again, most participants (84%) said that their business unit could benefit from analyzing news content to measure the sentiment or tone of a news article, and one-fifth said it could have a significant impact on their returns.

IMPORTANCE OF NEWS SIGNALS FOR IMPENDING VOLATILITY

News events can be precursors to changes in volatility of securities and therefore enable traders to get a jump by acting in advance of these changes. For this reason, almost all (86 percent) participants in the research said these events can be important or very important.

IMPORTANT CONSIDERATIONS IN NEWS AUTOMATION

NEWS TIMELINESS

The timeliness of news, sometimes referred to as news latency, is the time it takes after an event occurs for the news to reach an end user. In a traditional news context, this is a function depending greatly on where reporters are located and how they learn of an event occurring. In the context of an embargo or lock-up process being used (for a level playing field typically used with government economic data), it is the time from when the data is “released” to the time it reaches the end user, and is often measured to the millisecond rather than in seconds, minutes, or hours in the traditional news context.

We asked our research participants how important specific maximum news latency periods are to them, ranging from less than 50 milliseconds to one minute or longer. Interestingly, there was no real consensus. There appear to be some modest break points at the “one minute or longer” and “five seconds” marks, which times 57 percent and 52 percent of the participants, respectively, said were important or very important.

Nonetheless, for the most part participants reported no drop-dead maximum latency requirements. Very likely, as news automation is used more widely, more of a consensus will emerge. Just as likely, maximum acceptable latency periods will depend on the degree of automation the trader or investor uses. Those using news automation for decision support in a fundamental investment approach will tolerate longer periods than those using the technique to achieve the fastest possible response.

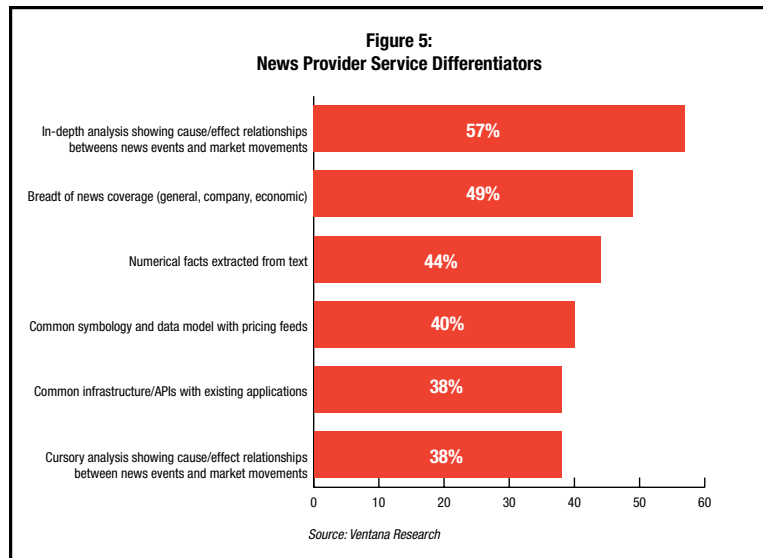
USEFUL LIFE OF NEWS ARTICLES

Similarly, there is a finite time span that affords traders an advantage from automating news analysis. In assessing how long after publication a news article’s structured data or extracted facts can be delivered without losing significant value, we found that 44 percent of participants said it is one second or less; however, another one-fourth said that time is not important since they would use the automated news feeds for research, not trading purposes.

VENDOR ISSUES

About half (48 %) of participants said there are quality differences among news feeds from vendors. These respondents said one or two stand out but the rest are the same. Another one-third (31%) said they are all the same, while 12 percent said each has something unique to offer. (The rest said they don’t know.)

When we asked participants what would sway their selection between vendors, the most important factor proved to be the vendor’s ability to provide in-depth analysis that shows cause-and-effect relationships between news events and market movements, which 57 percent of participants selected (see **Figure 5**). Indeed, the ability of automated news analysis systems to recognize relationships between events and markets is key because of the role that plays in developing profitable strategies, avoiding mistakes and managing risk systems. Many organizations will want to develop their own cause-and-effect models to achieve some differentiated capability. But since they will be providing this capability to all traders, news providers will set the bar at the minimum capability in this area.



The second-most important factor was the breadth of news coverage, chosen by half (49%) of the research participants, followed by having quantified facts extracted from the text. We expect that extracting numbers will be a minimum necessary requirement, with the differentiator being the scope of the information extracted and the ease with which it is “understood” by trading systems.

A NEW TOOL EMERGES

The results of this research show that traders and investors see value in using automated news analysis. They understand its potential to increase trading profits and improve relative performance, whether they are high-frequency quantitative traders or low-frequency fundamentals-style investors. A majority said it can be a competitive differentiator.

Using automated news analysis is in its earliest stages, yet it has the potential to be an important tool for investment professionals. Like any other element of information technology, the techniques for using automated news analysis are as important (if not more important) to success as the technology itself. For this reason, it is necessary, at a minimum, for investment professionals to understand the possibilities and to begin incorporating this emerging capability in their trading and investing strategies.

ABOUT VENTANA RESEARCH

Ventana Research is the leading Performance Management research and advisory services firm. By providing expert insight and detailed guidance, Ventana Research helps clients operate their companies more efficiently and effectively. Ventana Research delivers these business improvements through a top-down approach that connects people, processes, information and technology. What makes Ventana Research different from other analyst firms is a focus on Performance Management for finance, operations and IT. This focus, plus research as a foundation and reach into a community of more than 2 million corporate executives through extensive media partnerships, allows Ventana Research to deliver a high-value, low-risk method for achieving optimal business performance. To learn how Ventana Research's Performance Management workshops, assessments and advisory services can impact your bottom line, visit www.ventanaresearch.com.

**San Mateo, California
June 2008**

Ventana Research performed this research for a fee to determine the needs, attitudes and expectations of trading and investing organizations in the financial services industry. This document is based on our research and analysis of a quantitative survey administered via the Web, as well as related research into emerging uses of automation through information technology to handle news more effectively in trading and investment functions.

This research was designed to investigate the practices and needs of individuals and organizations that use or wish to use automation in managing their use of news in trading and investing. This research is not intended for use outside of this context and does not imply that organizations are guaranteed success by using these techniques.

We certify that Ventana Research wrote and edited this report independently, that the analysis contained herein is a faithful representation of our evaluation based on our experience with and knowledge of automating news feeds, and that the analysis and conclusions are entirely our own.

