Understanding information sharing among equity analysts

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Researchers have been studying the performance of equity analysts working in brokerage houses for four decades. Most of these studies typically assume that the analysts work in silos.

However, if analysts are compensated based on the quality of stock recommendations or information they provide to clients of their brokerage houses, common sense tells us that they would share information, especially among analysts who work within the same brokerage house.

Furthermore, it is known that brokerage houses seat their analysts together. Physical proximity suggests information sharing exists although it has not been proven.

This is why Singapore Management University Assistant Professor of Accounting and Lee Kong Chian Fellow Lin An-Ping decided to probe into the issue.

Speaking to the Office of Research, he explains the questions he looked to answer: Do analysts share information with each other? What is the nature of information that is shared, and specifically, do they share information across industries that are economically related?

He explained, "Analysts are known to be experts of the industries they cover but there is a lack of evidence about how information is shared about the industries they don't cover."
"My collaborators and I are interested in cross-industry information sharing among analysts, specifically in industries that are related from an economic perspective. Take for example, how is information about farming or agriculture, which is an 'upstream' industry, to 'downstream' industries such as food and beverages (F&B) or tobacco products, shared among analysts?" he added.

The research

For the paper titled "Cross-industry information sharing among colleagues and analyst research", Professor Lin collaborated with Professor Allen H. Huang and Associate Professor Amy Y. Zang, both of whom are attached to The Hong Kong University of Science and Technology. The paper was published in the Journal of Accounting and Economics.

Because information sharing is not easily observable, the researchers used the economic connectedness between an analyst's covered industry and their colleagues' covered industries to measure the extent of cross-industry information sharing among analysts.

The researchers relied on the U.S. BEA's Benchmark Input–Output Surveys to measure the input/output relationship between two industries, based on which they determined the economic connectedness between an analyst and other analysts at the same brokerage house.

The rationale behind this thinking is based on the premise that economically related industries warrant more cross-industry knowledge. To this end, the benefits of cross-industry information sharing would be greater among analysts working in economically related industries.

The researchers also designed a robust methodology comprising four important steps:
• Step 1 involved the measuring of inter-dependence of industries and the economic connectedness among the analysts.
• Step 2 was to measure the analyst performance relative to peers.
• Step 3 entailed correlating the level of connectedness with the performance of analyst given that earnings forecasts and recommendations on stock profitability are considered analysts' most important and visible quantitative outputs. To verify the performance of an analyst, the researchers leveraged the market reactions to earnings forecast revisions, as well as the Institutional Investor's All-Star Analyst rankings to capture investors' recognition of analyst research quality.
• Step 4 was designed to show whether the level of connectedness increased industry specialization of the analyst.

The research project was based on a large dataset, covering a period of 35 years, from 1982 to 2017.

As the stock market crashed twice during this period, in 1988 and in 2008, the researchers controlled the impact of the crashes by including industry-year fixed effects, which is a statistical method used in regression to determine the effect of the industry in the chosen time period for analysis.

Insights from the research

There were seven key insights that emerged from the research.

Analysts who are more economically connected to other analysts are better performers: they make more accurate earnings forecasts and more profitable stock recommendations.

It was shown that the performance of the analysts improved if their connections are with high performing analysts.
Upstream connectedness resulted in better accuracy of expense forecast. Say for example, when information such as increased costs of fertilizer in farming, which is an upstream industry to the F&B industry, is shared with a downstream analyst covering that industry, the downstream analyst would predict higher costs or expenses in his/her portfolio of F&B companies.

Downstream connectedness resulted in better accuracy of revenue forecast. Should a downstream analyst covering F&B obtain information pertaining to an increased demand for F&B, say due to an economic recovery, and shares such information with an upstream analyst covering farming, the upstream analyst is likely to forecast higher revenues in his/her portfolio of farming companies.

If information is shared between an upstream analyst and a downstream analyst, it is likely that both the analysts would issue/reissue their forecasts for the respective companies around the same time.

The performance of analysts improves when a highly connected analyst joins the brokerage house. In contrast, it was found that the analyst’s performance deteriorates when a highly connected analyst departs from the brokerage house.

Cross-industry information sharing among analysts leads to better industry specialization. This is because analysts who are more economically connected to other analysts can rely on colleagues for cross-industry information and thus, focus more on their primary covered industry, resulting in economies of scale in information collection and processing.

**Contributions of research**

"While this research focuses on information sharing among analysts, the
implication of this research spreads far and wide across many other sectors and disciplines such as Human Resources and Data Science," Professor Lin remarked.

"There are two important takeaways from this research. Information sharing or knowledge management enhances performance," he observed.

"Building a robust knowledge management system is critical for a firm, especially to retain information and to avoid knowledge dilution should there be attrition of the high performers," he added.


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