Increasing IPO performance by revealing innovation plans: How firms can mitigate the negative effect of insider selling

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Researchers from University of Colorado Denver, California State University Long Beach, Texas A&M University, and Kansas State University published a new Journal of Marketing article that examines the role of innovation potential as a credible signal that reduces the adverse selection present in IPO deals with insider sales. The study is authored by Zixia Cao, Reo Song, Alina Sorescu, and Ansley Chua.

U.S.-based IPOs raised over $155 billion in 2021, a record year for IPO valuations. At the same time, insiders sold $35.5 billion in shares of companies that went public in 2021 in the U.S. These insider sales are a negative signal of quality and typically reduce the value of IPOs.

This new study focuses on the role of innovation potential as a credible signal that reduces the adverse selection present in IPO deals with insider sales. Prior research shows that the managers of IPO firms have a strong tendency to remove information about future innovation from IPO prospectuses to prevent competitors from learning about their plans. In 40% of IPOs, managers seek to protect their competitive advantage by redacting information about upcoming products and what markets they are considering entering.

"Our research, however, documents a positive effect on IPO valuation from informing investors of future innovation plans. It allows managers to reduce information asymmetry, offers background information that helps investors better gauge the impact of insider sales, and ultimately increases the value of the IPO," says Cao.

To establish that innovation potential is a true signal of firm quality, which is unobservable to investors, the research team documents its indirect effect on IPO valuation through the sale of insider shares at the time of an IPO. "Sales of insider shares have been extensively shown to have a negative effect on IPO performance. We find that firms with higher innovation potential have lower sales of insider shares and when these sales occur, firms incur a relatively lower stock price penalty," says Song.

**Direct and indirect effects of innovation potential**

Innovation potential not only impacts IPO first-day returns directly, but also has an indirect effect of reducing the impact of insider sales on IPO valuation.

This study tests these relationships using data from 370 IPOs from the consumer-packaged goods and pharmaceutical industries where innovation potential is measured using patents, new product preannouncements, and generic references to
future innovation in the IPO prospectus. Even if companies choose not to reveal any specifics about new products, generic mentions of future innovation alone can serve as credible signals of firm quality.

Some innovation potential proxies work better than others in terms of signaling the true quality of the firm. Sorescu explains that "We find that patents have a stronger impact on insider sales than preannouncements and generic references of future innovation. This suggests that insiders appear to put more stock into technological innovation, which perhaps they perceive as more tangible, than in strategic actions or corporate communications that reflect a focus on market-based innovations. Also, preannouncements have the strongest impact on first-day IPO returns, suggesting that retail investors focus on the measure of innovation potential that is closest to commercialization."

"Our findings help investors better understand the conditions under which insider sales occur. On average, insiders are less likely to sell their holdings if the firm has a rich innovation pipeline," says Chua. Insiders can sell either because they want to cash in for liquidity reasons or because they expect the value of the firm to drop in the future.

The significant information asymmetry present at the time of the IPO may not allow investors to determine the motives behind insiders' actions. If investors assume the latter reason underlies the sale, they will be inclined to pay a lower price for the IPO shares: This study suggests that a change in insider sales from 0 to 1% decreases IPO first-day returns by 0.95%, on average.

**Managerial Implications**

Managers seeking to take their firms public can keep in mind the following:

1. New product preannouncements may be the strongest signal of innovation potential; the total effect of preannouncements on IPO first-day returns is higher than that of patents and generic references of innovation. Investors appear to view it as


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