Hidden Profiles in Corporate Prediction Markets: The Impact of Public Information Precision and Social Interaction

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Abstract

Recently, large companies have been experimenting with corporate prediction markets run among their employees. In the present study, we develop an analytical model to analyze the effects of information precision and social interactions on prediction market performance. We find that increased precision of public information is not always beneficial to the prediction market accuracy because of the “hidden profiles” effect: the information-aggregation mechanism places a larger-than-efficient weight on existing public information. We show that a socially embedded prediction market with information sharing among participants may help correct such inefficiency and improve prediction market performance. We also identify conditions under which increased precision of public information is detrimental in a nonnetworked prediction market and in a socially embedded prediction market. These results should be of interest to practitioners as the managerial implications highlight the detrimental effect of public information and the role of social networking among employees in a corporate prediction market.

Keywords: Prediction markets, social networks, public information, information sharing, hidden profiles