Buying high vs. bargain hunting

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New research from Olin Business School was used to develop a pricing strategy model for sellers, showing if they should offer price discounts and how deep those discounts should be. Credit: Washington University in St. Louis

Purchasing and pricing has always been a dance between buyers and sellers. Before deciding to make a purchase, buyers spend varying amounts of time and effort searching for price information. These searches can and do affect the pricing strategies of sellers: Where should they set their prices? Should they offer sales or discounts, or keep their product prices at a high margin?

New research from Olin Business School at Washington University in St. Louis presents a new framework that might make it a bit easier for businesses as they navigate the marketplace: it all boils down to understanding the buyer's search.

Tat Chan, associate professor of marketing at Olin, along with co-authors Xing Zhang, assistant professor of marketing at Fudan University and Ying Xie, associate professor of marketing at the University of Texas at Dallas, used an empirical approach for their research, recently accepted at Management Science.

The researchers examined a business-to-business market, where supply firms sell materials to buying firms, and buying firms need to search for price when purchasing to determine which selling firm will offer the best price in order to buy cheaper.

"We studied whether it's optimal for the selling firms to have periodic price discounts when they sell to the buying firms," Chan said.

The researchers developed their pricing strategy model by analyzing data from an independent distributor that sells chemical lab supplies. The distributor provided 5-1/2 years of data on daily selling prices and sales quantities for a homogenous product called d-luciferin potassium salt. The compound is sold by many firms, and there is no brand or quality difference. It also has a limited shelf life, so firms with inventory space can't "stock up" for a better price or when prices drop.

"We chose this product because it needs to be used quickly, so there's no inventory advantage for buyers," Chan said. "But we found it's still good for the company to offer a periodic price discount."

By offering periodic price discounts, the researchers found firms can cast wider nets and reach different customer bases: the ones who are willing to buy at a higher price to save time, and those who are willing to take the time to bargain hunt in order to find the best deal.

"Some firms may search for price more intensively, looking at many, many companies," Chan said. "Some companies don't have that much time, they just know one supplier and buy from them only. Therefore, when you offer periodic price discounts you can sell to different kinds of buying firms."

Although the research dealt with business-to-business transactions, Chan said there are takeaways for retailers as well. The ability to determine an optimal price promotion schedule, while taking into account expected competitive reactions, is of huge importance to retailers.

Knowing which customers have high search costs (with less time or inclination to compare prices), and which have low search costs (with more time to compare prices) can be used to put together a plan for setting discounts, ultimately allowing retailers to better compete in the marketplace.

"Our model gives a promotion schedule, how often a business should run a price promotion and how deep it can be," Chan said. "It is critical that businesses look at the data and see how consumers are searching for prices."

More information: Xing Zhang et al. Price Search and Periodic Price Discounts, *SSRN Electronic Journal* (2016). DOI: 10.2139/ssrn.2815073

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