Customers acquired through Google search advertising more valuable than previously thought

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(Phys.org) -- In a down economy where advertisers are concerned about every dollar spent, a team of researchers at Washington University in St. Louis has developed a new method of measuring the effectiveness of Google search advertising, taking into account not only online sales, but goods or services purchased off-line as well.

The 2012 Olin Award-winning paper, "Measuring the Lifetime Value of Customers Acquired from Google Search Advertising," finds that the conventional method of measuring the return on investment of online search ads is limited and fails to take into account the potential for "cross-channel sales spillover."

By measuring only online transactions, current measurement methods also fail to consider the long-term profit impact of new customers.

The paper is written by Tat Chan, PhD, associate professor of marketing at Olin Business School, Ying Xie, PhD, associate professor of marketing, and doctoral student Chunhua Wu.

They will share the Olin Award's $10,000 prize for relevant and performance-enhancing applications to critical management issues. The Olin Award for faculty research was initiated in 2007 by Richard Mahoney, executive-in-residence at Olin and former chairman and CEO of Monsanto Co.

A panel of prominent business executives and educators review and judge a range of research papers submitted to the competition authored by faculty of the Olin Business School.

Chan and his colleagues have developed an empirical method that estimates the lifetime value of customers acquired from search advertising by using multiple data sources. This new method provides advertisers with a more complete measurement of the value of customers acquired via Google.

Although the average cost per click using Google search advertising increased from around 25 cents in 2004 to almost 80 cents in 2007, it returns a value of about $10 per click for each keyword, the study suggests.

“This is very important for the advertising industry,” Chan says. “And also I think it is important for Google itself. They want to really show their customers, their business clients, how effective search advertising is.”

Google’s total advertising revenues in 2010 were $28 billion, up from $439 million in 2002.

One of the major advantages of search advertising is that it creates a better fit between potential customers’ needs and the advertised message. By reaching out to a large audience with immediate interest in the product advertised, search advertising provides a platform for advertisers not only to stimulate sales among existing customers but to also acquire new customers and grow business.

By merging web traffic and sales data from a small-sized U.S. firm, the researchers created an individual customer-level panel that tracks all repeated purchases, both online and off-line, and tracks whether or not

these purchases were referred from Google search advertising.

Their results show that customers acquired through Google search advertising have a higher transaction rate than customers acquired from other channels. After accounting for future purchases and spillover to off-line channels, the calculated value of new customers using this new approach is much higher than the value obtained using conventional methods.

“The conventional method normally just looks at online transactions, that are one-time transactions,” says Ying Xie, PhD, associate professor of marketing. “But in our method we propose that we should think about the customer’s lifetime value.

“In their lifetime, they could be an active customer, repeatedly making purchases. The cumulative amount of these purchases — that’s the profit stream we should take into account.”

The conventional method to measure the return of Google search advertising is to compare the online transaction profit generated from Google referrals with the cost of search advertising within a fixed time period.

Chan and his colleagues find that this has overlooked two important factors in profit calculation – multi-channel distribution is more prevalent in the Internet age and customer lifetime value is now widely used in many industries as a key marketing asset metric.

To estimate the customer lifetime value, the researchers merged three data sources, all available to advertisers in different industries, to construct customer panel data tracking online browsing history, as well as repeat purchases from both online and off-line channels.

They developed an integrated model of customer lifetime, transaction rate and gross margin. Based on their model's estimates, they find that the firm would incur a loss of $48 on average to acquire a new customer if using the conventional method.

After accounting for sales spillovers across channels and the long-term effect, the estimated value of customer acquisition is as high as $950 per customer.

"We know that advertising is important for business," Chan says. "We just don't know how we should invest or how effective it is. Online search advertising is increasing rapidly. It is very important for a lot of advertisers."

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The study concludes that current method of measuring dramatically undervalue those customers and the new multi-channel evaluation provides a better and more accurate measurement for companies to gauge their investment in online search advertising.

Provided by Washington University in St. Louis