New antitrust study shows reining in big tech doesn't spur rival profits

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In January, the Justice Department sued Google, claiming the tech company abused a monopoly in online advertising by seizing control of tools built on top of its platform. Google—along with Amazon and Apple—have faced similar antitrust charges in Europe in the last two years, and both sides of the Atlantic have proposed sweeping changes to regulating tech giants (with success in Europe and stalls in the U.S.).

However, a new study co-authored by Vanderbilt professor Sruthi Thatchenkery suggests that while unblocking competition with antitrust interventions prompts innovation on the platforms, profitability might still elude small companies. The reasoning why has to do with the interdependence of platform markets; this paper sheds light on platform markets, informing regulators on how better to protect both tech consumers and entrepreneurs.

How competition functions differently in platform markets

In the report, Thatchenkery and her co-author, Riitta Katila of Stanford, address the complexity of competition and innovation in platform ecosystems. These marketplaces create unique interdependence among companies: major tech companies build a base product and other companies create apps and systems that leverage it. A platform can take many forms, and in recent years each category has come to be dominated by one or two key players.

- Marketplace: Amazon or Alibaba for e-commerce
- Online Advertising: Google and Meta
- Operating Systems: Microsoft, Apple and Google

Platform success requires gaining a critical mass of 'complementor' companies (that sell products, apps, or services on the platform) as well as consumers (who buy the products, apps, or services). Platforms often entice companies to join with assets like development tools, software integrations, or basic tech infrastructure that these complementors might struggle to build on their own.

However, the symbiosis goes awry when the platform company begins offering the same apps and services as its complementors. Platforms often give their own apps and services unfair advantages or even exploit their market power to block rivals. But the research finds that antitrust action against the platforms has consequences for complementors.

"Restraining a dominant platform may reduce its motivation or ability to share assets," Thatchenkery said. "That makes the profit implications of antitrust actions less straightforward [than for innovation], particularly for resource-constrained complementors."

Building off a landmark technology antitrust case

To test this theory, Thatchenkery and Katila studied the fallout from the Justice Department's settlement with Microsoft in 2001, the first major antitrust intervention against a dominant software firm, where Microsoft was accused of blocking innovation in complementor markets.

They identified 78 public U.S. companies competing in the enterprise infrastructure software space between 1998 and 2004 (3 years before and after the settlement) and placed them in five categories: application integration, developers' tools, database management, network and system management, and security. Using three separate sources they built a massive dataset on the companies, including R&D expenditures, number of patents filed, firm size, and return on sales (ROS), to measure how company innovation and profits changed over the six years.

Microsoft's own infrastructure software leads the market in some of the enterprise infrastructure software categories and struggled to gain a foothold in others. The study used a difference-in-difference statistical design to take advantage of the variation in Microsoft's market share across categories and examine the antitrust settlement's effects.

Innovation doesn't always translate to profits in a platform ecosystem

On average, all the companies produced roughly five to six patents per year and saw a 0.27 drop in ROS during the period. After the antitrust intervention, companies in categories where Microsoft's products had dominated introduced an average of 4.2 more patents yearly than their counterparts, but their ROS saw an average drop of 9.1 more percentage points.

"Unblocking the competition created a 'wild west' where complementors raced to innovate," Katila said. "But they failed to profit."

Researchers said that this pattern was particularly pronounced for low-market share companies, suggesting that they may have over-relied on the platform for key assets and were left with the costly task of having to build those assets after the intervention. New entry into the market did not increase after the settlement either.

What it means for reining in Big Tech

The study has sweeping implications for antitrust actions against Big Tech and was nominated for the 2023 Antitrust Writing Awards. It suggests that while antitrust lawsuits can prompt innovation, it might be difficult to reverse damage caused by a dominant platform and enable complementors to reap financial rewards. New regulations to oversee a code of conduct in the industry and hopefully prevent harmful blocking behaviors from happening in the first place might better benefit technology entrepreneurs.

The authors also cautioned platform owners that their data indicates anti-competitive behavior can also harm them.

"To maintain a healthy ecosystem in the long run, platform owners may want to resist the temptation to keep complementors weak and instead help support their development to stand on their own," the authors write.

The study is published in the *Strategic Management Journal*.

More information: Sruthi Thatchenkery et al, Innovation and profitability following antitrust intervention against a dominant platform: The wild, wild west?, *Strategic Management Journal* (2022). DOI: 10.1002/smj.3470

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