Self-Preferencing by Digital Platforms

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Summary of talk

▶ Today's talk is based on the CPRC discussion paper "Self-Preferencing by Platforms: A Literature Review" co-authored with Susumu Sato and Yuta Kittaka

▶ Takeaways
  ▶ Having a dual role (e.g., marketplace & seller) can be an effective managerial strategy
  ▶ Some dual-role platforms, however, have incentives to treat their own services favorably (so-called self-preferencing)
  ▶ Self-preferencing may be beneficial or detrimental to participants (e.g., buyers and sellers) from an Economics perspective

Section 1

Dual-Role Platform and Self-Preferencing

Examples of dual-role platforms

- ▶ Use the term "dual-role platform" to represent entities that not only serve as an intermediary, but also act as a player therein
  - ▶ also called hybrid platform and vertically-integrated platform
- ▶ Typical examples
  - ▶ Search engine (Google)
    - ▶ Alphabet operates Google Search, in search results of which Google Shopping may also appear
  - ▶ App stores (Google, Apple)
    - ▶ Google and Apple govern app stores (Play Store and App Store), in which their own apps (e.g., Google Map and Apple Music) are also listed
  - ▶ E-commerce (Amazon, Walmart)
    - ▶ Amazon operates Amazon Marketplace, in which its private brands (e.g., Amazon Basic) are also sold

Examples of self-preferencing

- ▶ Dual-role platforms may treat their own services favorably
  - ▶ Google
    - ▶ Google manipulated its search algorithm to favor its own service Google Shopping over other competing rivals
    - ▶ The European Commission fined Google €2.42 billion
  - ▶ Apple
    - ▶ Apple forces app developers to use its own payment system and prohibits them from informing consumers of alternative payment methods
    - ▶ These conducts create a cost advantage for Apple's own apps
  - ▶ Amazon
    - ▶ Amazon allegedly manipulates the algorithm of its "BuyBox" in favor of its own products
    - ▶ Amazon allegedly exploits undisclosed data collected from third-party sellers for marketing its own products

Competition policy issues

- ▶ Legislation
  - ▶ Japan: Act on Improving Transparency and Fairness of Digital Platforms (TFDPA)
    - ▶ Requiring digital platforms to disclose terms and conditions
    - ▶ Platforms are expected to clarify the presence or absence of self-preferencing, and its reasons
  - ▶ EU: Digital Markets Act
    - ▶ Prohibiting self-preferencing by "gatekeepers"
  - ▶ US: American Innovation and Choice Online Act
    - ▶ Self-preferencing is designated as an unlawful conduct

Section 2

Dual-Role Platforms

Managerial incentive to be a dual-role platform

- ▶ Pure marketplace/seller
  - → Dual-role platform → Self-preferencing
    - ▶ Before looking at self-preferencing, we need to see why platforms have incentives to have a dual role
- ▶ Related literature
  - ▶ Hagiu and Spulber (2013)
    - ▶ Why a platform will start selling 1p goods
    - ▶ 1p goods can serve as a device to solve the coordination problem between buyers and sellers about participation
  - ▶ Hagiu, Jullien, and Wright (2020)
    - ▶ Why a seller will start building a marketplace
    - ▶ A multi-product seller builds a marketplace, and then invites a single-product rival
    - ▶ Trade-off between mitigating competition for consumer attention and losing a market share of the product that faces competition with the rival

Effects of 1p selling on 3p sellers and consumers

- ▶ Relevant papers
  - ▶ Anderson and Bedre-Defolie (2021), Etro (2021a), Zennyo (2022)
- ▶ Takeaways
  - ▶ It matters whether 1p selling results in higher or lower commission fees charged by the platform to 3p sellers
    - ▶ Platform's trade-off: increased commissions will
    - + create its cost advantage by raising 3p sellers' costs
    - − make 3p sellers set higher prices, reducing consumer demands
  - ▶ If dual-role platform wants to increase its commission, it hurts consumer surplus
    - ▶ This negative consequence is more likely to happen in cases where 3p goods face less elastic demand than 1p goods

Empirical studies on 1p selling

- ▶ Zhu and Liu (2018)
    - ▶ Data collected from Amazon.com
    - ▶ Findings
        1. Amazon is more likely to start 1p selling in product categories with higher prices, lower shipping costs, greater potential demands, and higher customer ratings
        2. Amazon is less likely to start 1p selling as 3p sellers adopt FBA
        3. Introduction of 1p selling may make 3p sellers stop selling in the categories
- ▶ Wen and Zhu (2019)
    - ▶ Data collected in mobile app markets
    - ▶ Findings
        1. Threat of 1p selling may make app developers reduce investments for quality improvement and increase prices
        2. Reduced investment can be considered as a shift of their investment capacity towards other categories
        3. 1p selling might be utilized as a means of churning unbalanced allocation across app categories

Section 3

Self-Preferencing

Types of self-preferencing

A. Manipulation on the order of search results and rankings
   a) by search engines (e.g., Google Search) ← Omit today
   b) by marketplaces (i.e., Amazon, App Store)
B. Exploitative use of data collected from third-party sellers
C. Others

Search manipulation by marketplaces

- ▶ Hagiu, Teh, and Wright (2022)
    - ▶ How to model self-preferencing?
        - ▶ Dual-role platform can hide an innovative 3p seller from consumers to protect its 1p goods
        - ▶ Self-preferencing destroys the 3p seller's opportunity to sell not only on the platform but also through its direct channel
    - ▶ Effects of regulating self-preferencing
        - ▶ Banning self-preferencing works well by preserving competition between 1p and 3p goods, unless the platform responds to the regulation by shutting down its marketplace
    - Note Self-preferencing is modeled as an extremely harsh conduct

- ▶ Milder self-preferencing
  1. Zennyo (2022)
     - ▶ Dual-role platform can manipulate its search algorithm so that its 1p goods are included in every consumer's search result
  - ▶ Self-preferencing can benefit consumers and sellers
    - ▶ Self-preferencing enables the dual-role platform to earn greater profits per consumer
    - ▶ Dual-role platform tries to attract more consumers to visit the marketplace
    - ▶ It charges a lower commission to sellers, resulting in lower prices and greater consumer participation
    - ▶ Increased consumer participation may enhance seller participation through cross-side network externalities

Search manipulation by marketplaces (cont'd)

- ▶ Milder self-preferencing
    - 2. Kittaka and Sato (2021)
        - ▶ Dual-role platform can distort consumers' search order
        - ▶ Consumers search the 1p good first and then, if they dislike it, continue searching 3p goods
    - ▶ Competitive effects of self-preferencing

    anti-competitive Search order distortion segments consumers into those who like 1p goods and those who don't, lessening price competition

    pro-competitive Self-preferencing alleviates the collusive pricing by the dual-role platform, resulting in lower prices

Search manipulation by marketplaces (cont'd)

- ▶ Milder self-preferencing
    - 3. Hervas-Drane and Shelegia (2022)
        - ▶ Some consumers only purchase goods recommended by the platform
        - ▶ Dual-role platform can recommend its 1p goods to them
    - ▶ Again, commissions matter
        - ▶ Banning self-preferencing may make the dual-role platform raise commission fees, harming consumer surplus and total welfare

Exploitative data use

▶ Dual-role platforms can exploit proprietary data of 3p sellers to select which product categories they should enter

▶ Pioneering work
  1. Jiang, Jerath, and Srinivasan (2011)
     ▶ Platform can estimate the type of 3p sellers (either high or low sales) using proprietary transaction data, and wants to imitate the good if it's of high type
     ▶ High-type seller may behave as if he/she is of low type to avoid 1p entry by the platform
     ▶ Threats of 1p entry may discourage sellers from exerting investment and effort

Exploitative data use

- ▶ Recent studies
    - 2. Etro (2021b)
        - ▶ 3P sellers create a new product category through investments, but it will be imitated by the platform at some probability
        - ▶ Imitation by the platform diminishes 3p sellers' investment incentive, while enhancing competition between 1p and 3p goods
        - ▶ Platform's incentive for imitation can be insufficient in terms of consumer surplus

Exploitative data use

- ▶ Recent studies
    - 3. Madsen and Vellodi (2021)
    - ▶ Two types of regulation on data usage
  - (a) Outright ban
      - ▶ A complete ban against data usage can facilitate the entry of 3p sellers into product categories with high demands
      - ▶ However, it may also make the platform choose categories to enter in a random fashion, leading to an inefficient entry by the platform
  - (b) Data patent
      - ▶ As a compromise plan, they propose a "data patent," which prohibits platforms from accessing 3p sellers' transaction data for a certain period of time
      - ▶ "Data patents" might be a better regulatory way if its period could be appropriately set

Section 4

Conclusion

Conclusion

- ▶ Self-preferencing hurts 3p sellers in many cases, but it is not necessarily harmful from a viewpoint of consumers
- ▶ Further research is necessary
    - ▶ Research for other types of self-preferencing
    - ▶ Empirical investigations
        - ▶ Data collection, sharing, and publicity
        - ▶ Once useful data is shared, IO researchers around the world will soon analyze it in a variety of ways
        - ▶ Competition authorities and governments should take the lead in promoting data sharing

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