BUNDLING IN PLATFORM MARKETS IN THE PRESENCE OF DATA ADVANTAGE

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BASIC DEFINITION: PLATFORM MARKET

1. An intermediary  2. Multiple sides  3. Indirect network benefits (positive or negative).

Platform: Google Search Engine

Side 1: Users

Side 2: Advertisers
POLICY ISSUE

- **Broad Issue:** Abuse of market power in online markets.
- **Bundling:** A form of non price discrimination in which two goods are sold together.
- **Competition Issue:** Bundling can increase the market power of the incumbent firm and exclude the competitors from the same market or an adjacent market.
POLICY ISSUE

- Application: Google Android Case (more generally, advertising financed platforms).
WHY IT’S A COMPETITION CONCERN: DEFAULT STATUS MATTER

Google searches as a percent of total searches on mobile devices

- 95 percent searches on Android Devices
- 25 percent searches on Window Mobile Devices
WHY IT’S A COMPETITION CONCERN: GOOGLE PLAY IS A MUST HAVE COMPONENT

Figure: Worldwide download statistics for four App stores in 2013

DIVIDE IN POLICY STAND

Opponents
1. Increased advertisement cost.
2. Restrictions on advertisers.

Defenders
1. Users can choose which app to use.
2. Innovation and product improvement
PURPOSE OF THIS STUDY

Research Questions

1. Can bundling in platform markets be motivated by anticompetitive intent rather than the efficiency gains?

2. How it affects the welfare of the consumers and society at large?
METHODOLOGY: A THEORETICAL APPROACH TO POLICY ANALYSIS

- A Game Theoretic Model
- Mathematical Modelling of interactions between different players: Platforms, Users and the Advertisers.
- Analyse the decision making process of each player.
- Understand the market outcome of individual decision making.
CONTRIBUTION OF THIS STUDY

- **New Evidence – Theoretical framework**
  1. An analytical framework for anticompetitive bundling.
  2. User information as a source of market power.

- **Identify the market conditions:** Specific forces in the platform markets
  1. Nuisance cost of advertisements to users: Disutility from viewing an ad by a user.
  2. Advertiser network benefits: Value that an advertiser receives from placing an advertisement on the platform.

- **Guide competition authorities**
What is it? 1. Personal information (user IP address, location), 2. Demographics information and 3. Behavioural information (online browsing, interests etc).

Data Collection is a significant factor in strategic decisions.

Bundling to monetise user data on the advertising side.
**MAIN RESULT: BUNDLING AS A PROFITABLE STRATEGY**

Cross market data advantage: Dynamics based on the model

<table>
<thead>
<tr>
<th>Market 1 (Android Handsets)</th>
<th>Market 2 (Google Search Engine)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incur losses in the tying market (Android handsets) and collect data from users joining it.</td>
<td>It would use the user data to improve advertising effectiveness in the other market (Google Search) and improve ad revenues.</td>
</tr>
</tbody>
</table>
Cross market data advantage: Evidence

Google controls “85 percent” of search advertising revenues and “over 90 percent” of mobile advertising revenues.

- Rising user share
- Improvement in advertisement effectiveness
HARM TO THE SOCIETY: MAIN RESULT

- Advertiser network benefits measure the value that an advertiser receives from placing an advertisement on the platform.
- Nuisance cost of ads is the disutility from viewing an ad by a user.

Figure: Change in Firm’s Profit and Social Welfare
## MAIN RESULT: POLICY IMPLICATION 1

<table>
<thead>
<tr>
<th>Market Parameter</th>
<th>Impact on social welfare</th>
<th>Authority</th>
<th>Action</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertiser network benefits</td>
<td>In markets with strong advertiser network benefits if bundling is profitable then it leads to a fall in social welfare.</td>
<td>Competition Authority</td>
<td>Mandatory Unbundling</td>
<td>Antitrust Action should be focussed on markets with strong advertiser network benefits.</td>
</tr>
</tbody>
</table>
Dilemma for competition policy enforcement

- Social Welfare vs User Welfare

“Intervention requiring mandatory unbundling of two goods can increase social welfare but reduce user welfare”

- Open Question: which welfare standard to use in bundling cases?
FUTURE RESEARCH

Need for more empirical evidence

- Market structure parameters.
  1. User dislike for advertisements.
  2. Advertiser network benefits.

- Quantify efficiency gains due to bundling in online platform markets.
CONCLUSION

- Bundling can be a profitable strategy to **monetise user data** and increase revenues on the advertising side.
- Intervention is most relevant when the tied market has **strong advertiser network benefits**.
- The final impact on welfare can be **different** for users and society.