Context-Dependent Preferences and Retailing: Vertical Restraints on Internet Sales

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Motivation

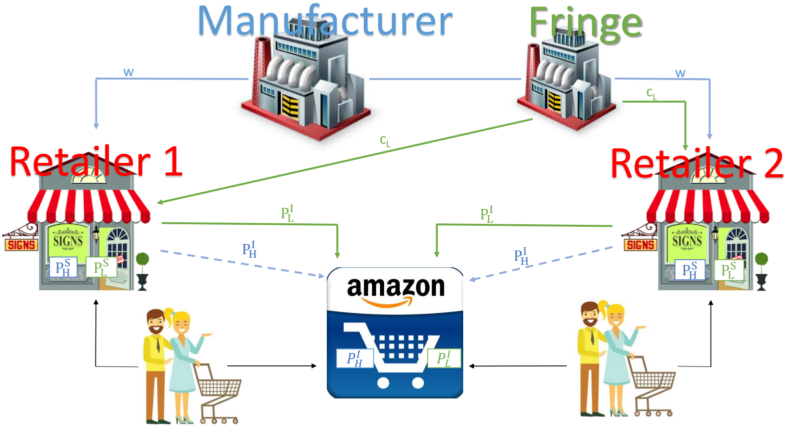
- Manufacturers, in particular brand producers of status and luxury goods, very often feel uneasy when retailers who distribute their products engage in e-commerce.
- Brand manufacturers' distribution agreements frequently include provisions that partially or completely ban online sales activities.
  - In the "'E-Commerce Sector Inquiry'" conducted by the European Commission, 50% of the retailers reported that they are affected by restrictions on online sales (European Commission, 2017).

Research Questions and Main Idea

- Main questions:
  1. Absent any hold-up and free-rider problems, why do manufacturers want to impose bans on internet sales?
  2. Why do European courts worry that such a restraint is detrimental for competition and thus ultimately for consumers?

- Main Idea
  - Consumers are not fully rational; the MRS between quality and price is affected by the choice set.
    - If products are not available online, the perceived price level might be higher and this tends to favor high-quality (brand) products (*Weber-Fechner Law of pricing*).
    - Consumers' decisions can be distorted by decoy options (Huber et al., 1982; Tversky & Simonson, 1993).

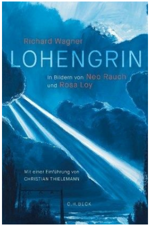
The Model: Graphical Illustration



The Model: Firms

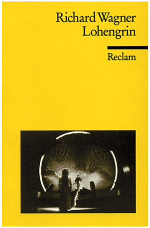
Manufacturer

- High quality
- Linear wholesale price
- TIOLI offer
- Free or banned online sales



Fringe

- Low quality
- Linear wholesale price that equals cost



Retail competition

- Online: perfect competition
- Local store has some (local) market power, i.e. can charge a markup of $\delta > 0$ above online prices.

The Model: Consumers

There are two consumers, H and L, with unit demand.

- Type-L consumer: Purchases low quality, either at the local store or online.
- Type-H-consumer:
  - Contemplates whether to buy low or high quality.
  - Decides whether to purchase at the local store or online.
  - Context-dependent preferences: Overvalues (undervalues) quality if the quality ratio is higher (lower) than the ratio of average prices.

Analysis: Rational Benchmark

Proposition 1 (Rational Benchmark)

The profit of the manufacturer is the same across both distribution systems, i.e. there is no rationale for the manufacturer to restrict online sales.

Analysis: Free Distribution

- Online prices: Bertrand competition $\Longrightarrow$ prices are equal to cost (wholesale prices).
- Store prices:
  - Markup on both products determined by online competition;
  - no incentive to create an environment so that consumers overvalue quality.
- Quality stands out only if the market power of local stores is high (leading to a high price level).

Analysis: Restricted Distribution

- Online prices: Only low quality is available online.
- Store prices:
  - The high-quality product is available only at the store.
  - The markup the retailer can charge on the branded product depends on the purchase context (whether quality is over-weighted).
  - Retailer prefers that quality stands out. This can be achieved by charging a high price on the low-quality product, i.e., by using the fringe product as a decoy good (Huber et al. 1982).
  - This comes at a cost: Type-L consumers purchase online.

Analysis: Optimal Distribution System

Proposition 2 (Comparison of Distribution Systems)

The manufacturer strictly prefers a restricted distribution system under which online sales are prohibited to a free distribution system if and only if the market power of local stores is weak.

Analysis: Optimal Distribution System

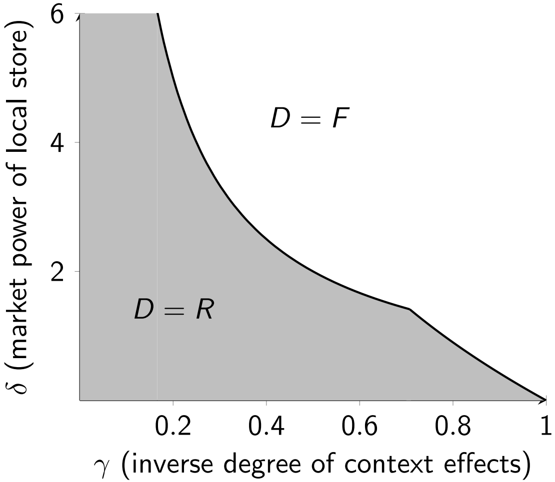


Figure: Optimal distribution system.

Analysis: Optimal Distribution System

- If consumers have only a mild preference to purchase from a local store, online competition "determines" prices at the store.
- The price level is relatively low and thus if the manufacturer charges a high wholesale price, price is likely to be the over-weighted attribute.
- By banning online sales and leaving a relatively high markup to the retailer, the manufacturer creates an incentive for the retailer to care about context effects.
- Now, the retailer has an incentive to create an environment so that quality stands out: interests of the manufacturer and the retailer are aligned.

Analysis: Consumer Welfare

- Can we say something about the welfare implications?

Proposition 3 (Consumer Welfare)

A ban on distribution systems under which online sales are prohibited leads to lower final prices for the branded product, which increases consumer welfare.

- A ban on such distribution systems can also prevent inefficient online sales and thus improve total welfare.

Application: Book Market and Fixed Prices

- Here, banning online sales is equivalent to RPM (a fixed price for both channels).
- Books might be peculiar goods:
  - Consumers may undervalue the positive long-run effects of reading a challenging book (from a Nobel laureate in literature).
  - If this is the case, fixed book prices can help that consumers focus on quality (instead of price) and this may improve consumer (and social) welfare.