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Competition and Antitrust in Digital Markets

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Wellington, 8 March 2017

What is the challenge?

- **First things first: The Internet (digital markets) tend to foster competition, as consumers have more choice, can compare more prices and products, markets expand in terms of geography, competition intensifies.**
- But: Are there long-term trends towards concentration or even monopolisation?
- Google (Alphabet), Amazon, Apple, Facebook etc. are (among) the most valuable companies in the world. That means: stock markets expect these firms to be extremely profitable. Why?
- Do we need to adjust competition policy instruments to address new problems?
- Answer: Possibly yes, some things change so that competition law enforcement may have to adopt.

Competition policy challenges

- Big data (smart data), price differentiation and market definition
- Google Shopping (as an illustration),
- Vertical restraints in e-commerce
- Further challenges

Some economics of big data

- (Big) data can be used to improve production processes (save costs), to tailor products and services (product differentiation) and to differentiate prices (price discrimination).
- Data as the „oil of the 21st century“ – less than perfect analogy, as data can – in contrast to oil – be used multiple times by many users in parallel or sequentially.
- But: Does the collection of huge data masses create such a competitive advantage that some data collections resemble “essential facilities”?
- If so, what can we do about it? Under what conditions should data be made available to whom?

More on big data as a tool to price differentiate

- Big data enables better predictions about shopping behaviour.
- Hence: Price discrimination may increase online and offline.



- Easiest examples: Price differentiation according to shopping time (electronic price tags), see gas stations.

More on big data as a tool to price differentiate



Hier punkten Sie (nur in teilnehmenden Geschäften und Regionen der Partner):



und bei mehr als 250 Online Partnern.

- Tendency towards individualised pricing through individualised rebates.
- Hence: Different prices for price-sensitive consumers (bargain hunters) and price-insensitive consumers who pay posted (maximum) prices.
- Consequence: Competition loses its public good aspect, market competition does no longer automatically protect everybody.

Consequences for competition law enforcement

- How to define relevant markets if more and more consumers pay different prices? A market for bargain hunters and another market for lazy shoppers? A separate market for everybody (in the extreme)?
- Do competition policy and consumer protection go hand-in-hand (more or less) as it used to be the case?
- What is, more generally, the role of data collection(s) for competition policy?

The economics of Internet platforms

- Internet platforms (Google, eBay, Facebook, Amazon, Uber, AirBnB,...) are two-sided markets (multi-sided platforms).
- The utility of participants on one side of the market (e.g., sellers) increases the more participants there are on the other market side (e.g., potential buyer) (e.g., flea markets).
- Sellers do not directly benefit if there are more other sellers, but indirectly (as more sellers attract more buyers).
- Evans (2002) lists three criteria for a market to be two-sided:
 1. There must be two independent, complementary user groups,
 2. The utility of members of one user group is (positively or negatively) affected by the number of members in the other use group,
 3. There must be an intermediary who brings the two user groups together..

The economics of Internet platforms

| Platform | Actor 1 (B) | Actor 2 (S) | Examples for platforms |
|-------------------|------------------|---------------------------------|---|
| Video games | Players | Game developers | Game-Cube, Play station, Nintendo |
| Operating systems | users | App/software developers | Windows, Linux, OS/2, Android |
| Payment systems | buyers | Retailers (hotels, restaurants) | Credit cards, EC, loyalty cards, PayPal |
| Media | Recipients | Advertisers | newspapers, web pages |
| Travel agents | travellers | Airlines, hotels | Expedia, HRS, Uber, AirBnB, Booking.com |
| Malls | shoppers | shops | Malls, airports, eBay, Amazon |
| Football clubs | Fans, spectators | Advertisers, sponsors | FC St. Pauli, Celtic Glasgow |

The economics of Internet platforms

- Caillaud and Jullien (2003): Chicken and egg problem – which market side can you convince first to join?
- Typical behaviour: „Cross-subsidies“ for one market side, to increase the platform’s attractiveness for the other market side.
- Do the indirect network effects automatically or “naturally“ lead to monopoly structures in these markets?
- Sometimes, but not always: see travel agents, malls, payment systems, dating platforms,
- What affects concentration levels?

The economics of Internet platforms

1. Direct network effects: Facebook, Skype, Twitter, WhatsApp,....
2. Indirect network effects: Booking, Amazon, eBay, AirBnB, Uber, Google,.....

| Factor | Effect on market concentration |
|------------------------------|--------------------------------|
| Strength of network effects | + |
| (regular) economies of scale | + |
| Capacity limits | - |
| Platform differentiation | - |
| Multi-homing | - |

Source: Evans und Schmalensee (2008, p. 679).

The Google case(s) - allegations

- **Search Bias: Organic search results are biased so that Google's own content (Youtube, Google Maps, Google Shopping etc.) are favoured,**
- **Google shopping is advertised too heavily/prominently in response to generic search questions,**
- Google is a gatekeeper/essential facility/bottleneck/unavoidable trading partner – question of linkage dominance?
- Original search data is not accessible for competitors (scale economies as a barrier to entry? – how important are scale economies?)
- Google makes it difficult for other search engines to access/index Google content (such as Youtube, Google books etc.),
- Displacement of vertical (specialised) search engines,
- Barriers against multi-homing of advertising clients,
- **Google products are used as default on various devices (in combination with Android).**

Does Google have a dominant position?

European Commission: “Google has a dominant position in providing general online search services throughout the EEA, with market shares above 90% in most EEA countries.”

| Search Engine | USA | GER | UK | FRA | Japan | China | RUS | AUS |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Google | 71.0% | 97.0% | 93.0% | 96.0% | 38.0% | 24.6% | 34.5% | 92.8% |
| Yahoo! | 14.5% | 1.0% | 2.1% | 1.3% | 51.0% | - | - | 2.3% |
| Bing | 9.8% | 1.2% | 3.5% | 2.1% | - | - | - | 3.2% |
| Baidu | - | - | - | - | - | 73.0% | - | - |
| Yandex | - | - | - | - | - | - | 62.0% | - |
| Other | 4.7% | 0.9% | 1.5% | 0.6% | 11.0% | 3.4% | 3.5% | 1.7% |

Market definition for search engines

- Of course, Google is a multi-sided market / platform.
- Users (who search) and webpages are not charged any money (for generic search), which makes the SSNIP test practically impossible.
- Is there a distinct product market for general search? How would consumers substitute away from Google? (interchangeability).
- Are Amazon, Wikipedia, IMDb, eBay, Facebook, LinkedIn, booking.com, inomics etc., search engines?
- Do people search for webpages (“general search”) or do they search for information (or entertainment) (“content search”)?
- The Commission focuses on technical aspects (e.g., in general versus specialised search) when delineating the market rather than (potential) consumer behaviour.

The market for comparison shopping services

- Problems of market definition due to missing prices (in money) – how to define substitutes?
- SSNIP test basically does not work with zero prices on one side.
- How to evaluate the value of data?
- How to define market shares? Clicks? Advertising share?
- A high market share in the market for generic search does not imply a high market share in advertising markets (different substitutes).

Potential product markets:

- Comparison shopping services versus specialised search services
- Comparison shopping services versus online retailers
- Comparison shopping services versus merchant platforms /market places

Abuse in the market for comparison shopping services

- Is displaying (effective) advertisements for Google shopping abusive?
- Crucial: What is the consumers' view? Do they realise this is advertisement? – Consumer protection versus competition policy.
- Is Google shopping an essential facility / bottleneck?
- Why has the European Commission picked Google Shopping as its showcase against Google?

Does Google bias (generic) search results?

- Of course, this is utterly difficult to determine.
- But: At least at the margin Google should have an incentive to favour its own content / web pages.
- Has a used car dealer incentives to tell you the truth, the whole truth and nothing but the truth?
- But: Google's incentives to bias search results may actually be lower than those of its rivals due to media attention.
- In principle, larger search engines probably have lower incentives to bias their results as it will be discovered and spread more easily (through media coverage etc.) (who is interested in a tiny little webpage biasing results? – unlikely to be widely reported).

Potential remedies

- Requirement to display other comparison shopping sites / online market places in the same way as Google Shopping (free of charge?),
- Vertical separation: Require Google to sell youtube etc. and do not provide any content (Q: Is Amazon dominant in the market for book searches?),
- Access to (anonymised) historical search data,
- Search neutrality,
- The great search regulator,
- Independent ombudsperson,
- Government-owned search engines,
- Increased transparency (for links to Google content).

Conclusions on Google

- Unclear whether a distinct market for generic search exists.
- (Potential) substitution between generic and vertical search not clear.
- Also unclear why market places are not substitutes for comparison shopping sites.
- Dominance of Google shopping is not unambiguous.
- But: Incentive to bias search should exist, at least at the margin, but not necessarily a competition law problem (rather consumer protection).
- Is Google (Shopping) a bottleneck/essential facility? At best unclear.
- Remedies are difficult to impose, and can be highly political.

Further challenges ahead

- If data resources turn out to be an essential facility, must they be shared? What about consumer privacy? The consent to grant firm A access to my personal data may not imply consent for firm B to access it.
- Should privacy play a role in merger control? Imagine a hypothetical merger between a bank, an electricity retailer (with smart meters) and some grocery retailer....
- How can we define markets if users do not use money to pay? What does it mean, for example, to collect 5-10 % more data (in analogy to the SSNIP test)?

Vertical restraints for ecommerce

- Quantitative restrictions for online retailing,
- Price discrimination between online- und offline sales (“dual pricing systems”),
- Complete ban of online sales,
- Across platform parity agreements (APPA) – a special form of most-favoured customer clause (e.g., booking).

Economic explanations for vertical restraints in general

Core questions in competition economics:

- Why do special (“non-standard”) agreements exist?
- What effects do these agreements have?

Economic explanation (quite general):

- Power (here: securing or extending market power)
- Efficiency (overcoming coordination problems)

Efficiency effects of vertical restraints

1. Safeguarding specific investments (Williamson, 1975):
 - How important are specific investments?
 - Are vertical restraints really necessary to overcome the problems?
2. Vertical externalities and coordination problems
 - double marginalisation – Spengler (1950)
 - Product-specific advertising, sales enhancing activities
3. Horizontal externalities and free-riding
 - Supply of services before and after sales – Telser (1960)
 - Managing consumer expectations/brand images (esp: luxury goods)
4. Information asymmetries between retailers and manufacturers

Theories of harm / anti-competitive effects

1. Foreclosure (VR as a barrier to entry or to expansion)
Esp: Exclusivity clauses and APPA
2. Collusion enhancing effects
e.g.: Increased market transparency with resale price maintenance (RPM), potential “star cartels”
3. Further competition reducing effects
E.g., lower incentives to price aggressively with exclusivity clauses

Treatment of vertical restraints in competition law

USA: „Rule of reason“ approach, especially following Leegin (2007)

EU: A system of relative (rebuttable) presumptions and distributions of burden of proof:

General presumption: As long as there is no significant market power (SMP), vertical restraints are efficiency enhancing not (regulation on group exemptions)

Exemption from the exemption: Core restrictions.

For market shares > 30 % a detailed analysis of the particular case is warranted.

Conditions for the EU Commission accepting efficiencies

1. Efficiencies must only be feasible in an abstract sense, but they must be concrete and be substantiated with respect to their extent and probability of occurring.
2. The vertical restraints must be necessary for the efficiencies to occur.
3. Consumers must participate in an adequate manner.
4. No elimination of essential competition.

Standard of proof to get efficiencies accepted may be too high. Analysis of the counterfactual situation often rather difficult .

Economic considerations

Why do manufacturers want to soften retail competition?

Or: Why do I want to expose „my“ retailers to softer competition?

- (Broad) stationary presence may have a value for manufacturers (e.g., window shopping),
- The (luxury) image may depend on the distribution channel,
- Rebates /price differentiation between retailers is becoming indirectly more transparent – opportunities for price differentiation may be reduced.

Selective distribution systems and platform bans I

Many cases concerns luxury or high value products.

- Yves Saint Laurent perfumes (YSLP): Online sales only by dealers with stationary presence is ok, (EU Commission)
- Pierre Fabre: Ban of online sales is core restriction. Efficiencies could not be demonstrated.
- Bijourama/Festina: Pure online retailers without a stationary presence can be excluded from a distribution system.
- PMC Distribution/Pacific Création: Online sales of non-authorized dealers can be subjected to damage claims.
- Makro/Beauté Prestige: Ban of Internet sales for high-valued perfumes is ok (Belgium 2002).

Selective distribution systems and platform bans II

- Bose, Focal JM Lab, Triangle Industries, Bang & Olufsen: Online distribution by authorised dealers may not be banned altogether.
- Germany: Adidas, backpacks, running shoes (Acsis), Lego toys.
- Dual pricing systems: According to the Federal Cartel Office they are only justified if the costs of online and offline sales differ for the manufacturer (e.g., due to complaint management), other “value added” (e.g., contribution to brand image) not accepted so far.
- From an economic point of view this attitude is not without problems, as
- Consideration: A high price or exclusivity can, for luxury goods, be part of a brand image.

Remarks with respect to Booking.com (HRS in Germany)

- APPA is prohibited for platforms with market share > 30%
- How to delineate the relevant market? Online versus offline?
Platforms versus own webpages?
- Which evidence can be generated in order to „proof“ efficiencies?
- Put differently: How can you empirically substantiate that a problem (e.g., free-riding) would exist hadn't you solved the problem?
- Is the theory of harm (here: foreclosure) correct?
- Remark at the side: Behavioural economics of authorities/agencies.

Final remarks on vertical restraints for online sales

- Main arguments in favour of efficiencies regarding vertical restraints of online sales are specific investments and free-riding, sometimes possibly brand image (luxury products).
- In this context, it may make sense to demand a stationary presence and to limit the extent of online sales.
- It is not clear that banning online sales should be viewed as a core restriction (as it primarily limits intra-brand competition).
- Also dual pricing (wholesale price discrimination) should not be prohibited per se.
- Question: Which alternative mode of organizations may emerge (agency models, flagship stores)?

Literature advertising

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Thank you for your attention!

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