Patent Wars in the Smart-Phone Industry: Main Competition Policy Issues and the Role of the Economic Consultant

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Competition Policy

• Article 101: Agreements
• Article 102: Abuse of dominant position
A Time Line

Microsoft sues for patent infringement

Rockstar

Google acquires MMI

Microsoft/MMI SEP litigation

Apple sues on Design Patents

Mosaid

Apple/MMI SEP litigation

Apple/Samsung SEP litigation
Economics of Patent Protection

Price

Consumer Surplus

Reward

Time
Other Aspects of Patent Protection

• “breadth” as protection against imitation
• Leading breadth as protection against future innovation
• Patent protection to foster the diffusion of innovation
A FEW PRINCIPLES

- Not all IPRs confer significant market power
- IPRs should be treated like any other source of market power → what matters is abusive conduct
- With some additional “efficiency” defences due to the public good nature of IPRS
- With a few exceptions, all sectors of activity have access to the same IP protection...although the effectiveness of this protection may differ across sectors.
A FEW PRINCIPLES

• The role of the IP system is to assign property rights, taking into account the trade-offs between the incentives to innovate of both initial and follow-on innovators, static welfare losses from higher product prices and the diffusion of knowledge.

• The role of competition policy is to regulate the use of IP-based market power when IPRs do give rise to market power.
IP and Antitrust Policy

Licensing
- No Thickets
  - Grant-Back
  - Pass-Through
- Patent Thickets
  - Patent Pools
  - Cross-Licensing

Patent Abuse
- Litigation Abuse
- Regulatory Abuse (AstraZeneca)
  - Patent "Wars"
  - Pay for Delay Settlements
The Google-MMI Acquisition

• **MMI IP Portfolio**: Google Acquired MMI for $12.5 B. MMI’s earnings have been negative → Google essentially paid for the strategic value of the portfolio.

• Depending on how MMI’s patents are counted, this gives a price of between $0.7M and $2M per patent.
GOOGLE-MMI: Horizontal Overlap

- Product Markets
  - Search
  - Mobile Devices
- Technology Markets
- Innovation Markets
  - IP PORTFOLIOS
  - NO
## IP PORTFOLIO OVERLAP?

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THEORIES OF HARM: THE KITCHEN SINK

• EXCLUSION OF OTHER MOBILE DEVICES MAKERS FROM FULL ANDROID ACCESS TO PROMOTE MMI (TRADITIONAL FORECLOSURE).

• USING MMI’S IP TO FORCE LICENSEES TO PRIVILEDGE GOOGLE SEARCH ON THEIR DEVICES.

• USE OF MMI’S IP TO HARM OTHER PLATFORMS
  • REFUSAL TO LICENSE
  • INSISTENCE ON ANDROID-WIDE AGREEMENTS
  • .....BUT CROSS LICENSING MIGHT BE BAD TOO!
EVENTUAL CONSENSUS: AN “IP” TRANSACTION

• GOOGLE EAGER TO “ARM ITSELF” FOR THE ONGOING PATENT WARS.

• BUT

  • MERGER-SPECIFICITY
  • THEORY OF HARM?
MERGER-SPECIFICITY

• GOOGLE WOULD HAVE TO BE “MORE AGGRESSIVE” THAN MMI.

• AGGRESSIVE WRT WHOM? OTHER PLATFORMS? OTHER ANDROID USERS? WHICH IS WORST AND WHY?

• MOREOVER MMI ALREADY ENGAGED IN LITIGATION

• USING A MERGER TO WARN ABOUT LITIGATION THAT WAS STARTED PRE-MERGER AND WITHOUT A WELL ARTICULATED EXPLANATION OF WHY THE SAME LITIGATION WOULD BE PURSUED MORE AGGRESSIVELY POST-MERGER SEEMS ODD
THEORY OF HARM: INCONSISTENCIES

• HARM SHOULD DEPEND ON WHETHER THE TRANSACTION “TILTS THE SCALE” OR “RESTORES BALANCE”…..BUT NO SYSTEMATIC ASSESSMENT OF RELATIVE “IP STRENGTH” IN THE INDUSTRY.

• SUCH A THEORY OF HARM CALLS FOR AN ASSESSMENT OF DOMINANCE ON AN “OVERALL STRENGTH” BASIS……. BUT NARROW APPROACH TO DOMINANCE (EACH SEP IS DOMINANT)
THEORY OF HARM: INCONSISTENCIES

- In an overall assessment of IP strength, SEPS should be discounted compared to equally strong patents without FRAND commitments.
- Instead, narrow focus on SEPS.
- Focus on SEPS might be legitimate ex post if there is an alleged violation of FRAND but not ex ante when assessing potential merger effects.
Rockstar

• *Nortel Portfolio:* About 4000 patents sold to the “Rockstar” alliance for $4.5 B → $1.1 M per patent.

• *Rockstar Alliance:* Microsoft, Apple (50%), Nokia, Sony-Ericsson,....... 

• *Division of ownership across Rockstar members?/*
Rockstar

• Economic theory usually suggests that the “rich gets richer”.

• Typical example: acquisition of a patent by monopolist or potential entrant:

  Monopolist willing to bid $\pi^M - \pi^D$

  Entrant willing to bid $\pi^D$

  $\pi^M - \pi^D > \pi^D \iff \pi^M > 2\pi^D$

  → How to make sense of the Rockstar transaction?
ROCKSTAR

Google       Rock 1     Rock 2     Rock 3

+ = pre-transaction profit
SSOs AND SEPs: 4 MAIN ISSUES

• Issue # 1: collective action between (potential) rivals within the SSO can increase the market power of the selected IPRs → this additional market power cannot be legitimately exploited → FRAND commitments.

• Issue # 2: royalty stacking....is it an antitrust issue?

• Issue # 3:“Shapiro” Hold-Up: combination of uncertainty about patent validity and preliminary injunctions → excessive royalties and/or licensing conditions

• Issue # 4: Sequential complementarity: appropriation of rents from future innovation.... An antitrust issue?
### SEPS: FOUR ISSUES

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SEPS: FOUR ISSUES

Increased market power through collective action

Static complementarities ➤➤ “royalty stacking”

“Lemley-Shapiro” hold up

Dynamic Complementarities: Appropriating Returns from Future Innovation?

Not an antitrust issue
Increased Market Power through Collective Action

Static Complementarities

Shapiro Hold-Up

Dynamic Complementarities

Frand

Patent Pools

Certified Essentiality and Improved Patent Quality

Restrict Injunctions

Entire Marginal Market Value

Proper “leading” breadth at the PTO

PTO Reform
DYNAMIC COMPLEMENTARITIES

• IPRs should be rewarded based on the value that they contribute to create = value with – value without = EMMV.
• This difference includes future innovation/features that are enabled or improved by the IPR as well as increase in sales of complementary goods.
• “leading breadth” provides the correct reward with respect to substitute technologies. A share of EMMV provides the correct reward with respect to complementary technologies.
Full Functionality

Minus Enabled Functionality

Minus Improvement to some functionalities

APPs/ Other Indirect Revenues / Profits

APPs/ Other Indirect Revenues / Profits

APPs/ Other Indirect Revenues / Profits

400

300

250

300

200

150

150
CEPS: COMMON ISSUES

Increased market power through collective action

Static complementarities ► ► “royalty stacking”

“Lemley-Shapiro” hold up

Dynamic Complementarities: Appropriating Returns from Future Innovation?
COMMON APPROACH: EBAY?

- HARD TO DEAL WITH CEPs UNDER AN ESSENTIAL FACILITY STANDARD: NARROW SET OF CRITERIA + US/EU DIFFERENCES
- ADOPT A EBAY Vs MERCEXCHANGE APPROACH:
  - BALANCE OF HARM
  - CONSUMER INTEREST
BALANCE OF POWER IN PATENT WARS

• IF SEPs CANNOT BE USED AS BARGAINING CHIPS IN BROADER PATENT BATTLES, THEN FIRMS WITH SEP-HEAVY PORTFOLIOS ARE AT A DISADVANTAGE.

• COMPETITION AUTHORITIES WADING IN AT MIDSTREAM ►► HARD FOR FIRM TO ADJUST IP STRATEGIES

• RISK THAT COMPETITION AUTHORITIES ARE PART OF THE GAMING, NOT PART OF THE SOLUTION.
INCENTIVES

- SEVERE REGULATION OF SEPs ➤➤ LESS PARTICIPATION IN SSOs, MORE POACHING FROM THE SIDELINES.
- STANDARDISATION IS NOT ALWAYS A CHOICE. SOME ASPECTS OF TECHNOLOGY (E.G. TELECOMMUNICATION ASPECTS) REQUIRE STANDARDISATION, OTHERS LESS ➤➤ SEVERE REGULATION OF SEPs MEANS UNBALANCED PATTERN OF INNOVATION
Your Career in Competition Economics Consulting
Different Entry Levels

• BA/BSc: usually short term, expectation of going back for MSc after a while. Information gathering, data manipulation (Excel, Stata)
• MSC: meant to be long term. Information gathering and data manipulation but in a lead role. Kept abreast of line of argument, progressive introduction to clients. Report writing.
• PhD: up to full case leader. Econometric analysis, modelling, report writing, client relations, competition authority relations, oral hearing, expert witnessing
Skills

- A good understanding of Microeconomics
- Background in statistics/econometrics
- Some idea of what competition law is about
- Some awareness of the economics/business world
- A related Thesis – or at least demonstrating proficiency in quantitative techniques – helps
- Ability to organise one’s work and meet deadline