Asymmetric Equilibria and Non-cooperative Access Pricing in Telecommunications

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Discussion
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- Contribution
  - Solve for competition in multi-part tariffs in LRT with
    - Non-reciprocal termination rates
    - Asymmetry between networks
  - Apply to unilateral setting of termination rates

- Revival of the issue of TR
  - Substitution fixe-mobile
  - Convergence *F2M*
  - Broadband *(VoIP)* and *F2F competition*

- Model: variation on different transport costs
  - Two networks: incumbent I and new E
  - Off-net and on-net prices at perceived costs

$$U^{I} = v - X^{E}.\Delta v(a_{E}) - G^{I} + \eta t x$$

$$U^{E} = v - X^{I}.\Delta v(a_{I}) - G^{E} + t\left(1 - x\right)$$

$$\Pi^{I} = X^{I} G^{I} + X^{I}(1 - X^{I})\pi(a^{I})$$

$$\Pi^{E} = X^{E} G^{E} + X^{E}(1 - X^{E})\pi(a^{I})$$

- Four dimensions in choosing TR
  - Direct Impact on termination revenue
  - Indirect impact on demand
  - Increase in demand cross-elasticity
  - Strategic effect due to termination revenue

- Increasing the advantage of incumbent
  - reduces demand elasticity
  - increases its eq.market share but only to 2/3 in the base Hotelling model (due to price effects)

- Hard to get intuitions from the paper

- The strategic effect due to termination revenue is asymmetric because this revenue is maximal with equal size.

- Higher access revenue:
  - Makes incumbent softer competitor
  - Makes entrant tougher competitor

- The entrant has thus a lower propensity to raise TR
  - For small differences, the incumbent set higher TR

- When large advantage to incumbent,
  - The incumbent residual demand elasticty goes to zero: TR at monopoly price
  - Strategic effect dominates for entrant : TR below monopoly rate (to soften competition)

Comments

- Existence and stability for small differentiation
- No tipping / no predation
- Entrant has less profit but is it worth-off compared to
  - Cost based regulation?
  - Reciprocal TR ?
- Optimal TR?
- Receiver surplus and receiver pay
  - Reduces incentives to raise TR
- Endogeneous differentiation