Information (Technology), Market Performance, and Welfare in The South Indian Fisheries Sector

NextLab I Reading Presentation

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Executive Summary

- Does ICT really matter (has a priority) in low income countries?
- Use introduction of mobile phone into Southern India as evidence
  - A close study from 1997 to 2001
  - Proving economic models and theories (90% of the paper)
- Result confirmed improvement in market performance and citizen welfare
Study conducted in Southern India
Kozhikode, Kannur, and Kasaragod

- Heavy fisheries area
- 15 markets 15 miles apart
- 300 sardine fishing units
- One market sell per day
- Introduction of mobile phone in 1997 to 2000
The Economics Model predicts market performance and welfare improvement

- Information enables sellers decision to not sell on local market
  - High VS. low density of fish zones

- Model and theorem based on Bayes-Nash equilibrium game theory

- Linear regression predicting the effect
Results matches predictions

- Lower in overall fish price (4% lower)
- Lower price dispersion within and between markets (from 70% to 15%)
- Eliminate waste (from 5-8%)
- Consumer and producer surplus increase
Alternative explanations are disproved

- Explanations such as:
  - Mobile phones lead to increase in wealth in those area of coverage
  - Mobile phones effect transaction timing and create collusion
  - Entry and exit changes overtime
Summary

• ICT adds benefit to low-income region by generating a well functioning market and should be prioritize
• Practice can be repeated elsewhere especially in perishable commodities sector
• Information available from ICT development enforce economic theorem
  ▫ Law of One Price
  ▫ Welfare Effect
MAS.965 / 6.976 / EC.S06 NextLab I: Designing Mobile Technologies for the Next Billion Users
Fall 2008

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