



Pathways by Which Improved Information Can Affect Market Performance: Implications for Evaluation of MIS Impacts

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Key messages

- Complementarity between public and private activities to improve market information
- MIS can improve market performance both through
 - Direct impacts on decisions of private actors:
 - Spatial and temporal arbitrage
 - Production decisions
 - Indirect effects via:
 - Complementarity with other hard and soft infrastructure (e.g., roads, credit programs),
 - Impacts on improving government policies



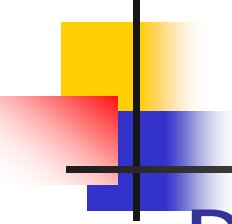
Key messages

- Yet as one moves towards these more round-about impacts of MIS, it becomes increasingly difficult to quantify the impact of MIS due to:
 - Problems of attribution of impacts to the MIS actions vis a vis other complementary and often contemporaneous actions (e.g., market reforms)
 - The difficulty of specifying the counterfactual (in terms of the policy environment) for the without-MIS situation.



Why try to estimate impacts?

- Conceptual links between better information and improved market performance
- Reasons why private investment may lead to insufficient provision of market information
 - Indivisibility
 - Non-excludability
 - Uncertainty
 - Lack of effective demand among the very poor
- New ICT may change some of these reasons (e.g., non-excludability), increasing role for private info. provision
- Question remains: At margin, how much to invest in public provision of market information relative to other programs?



Pathways from better
information to better market
performance: implications for
evaluation



Potential Direct Impacts of Better Market Information & Ways of Evaluating Them

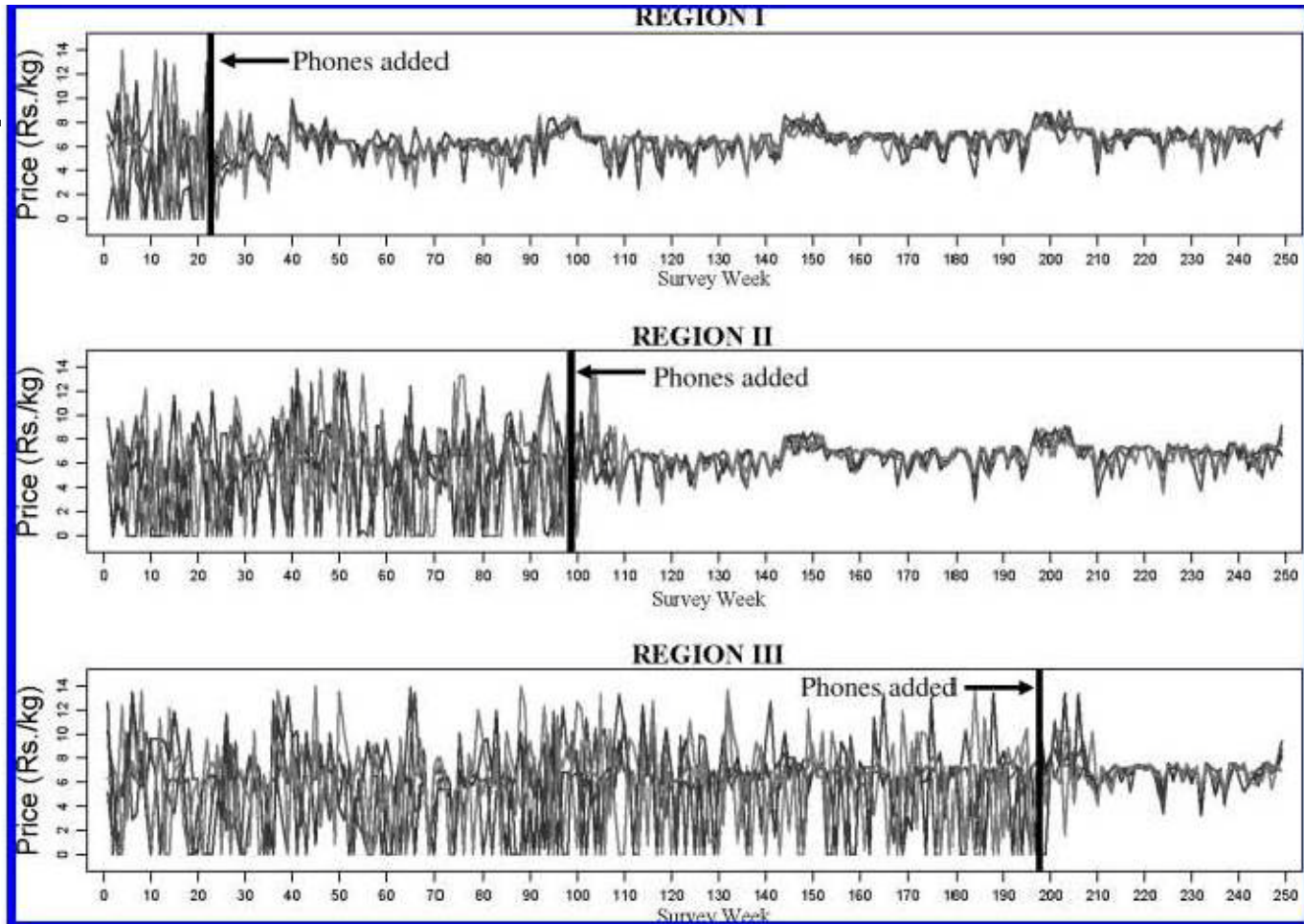
- Rent redistribution in short run– e.g., reduction in intra-market margins following introduction of MIS
 - E.g., early work on Malian MIS
 - Value consumer savings per kg times market volumes
 - Does not examine longer-run growth implications of such redistribution



Potential Direct Impacts of Better Market Information & Ways of Evaluating Them

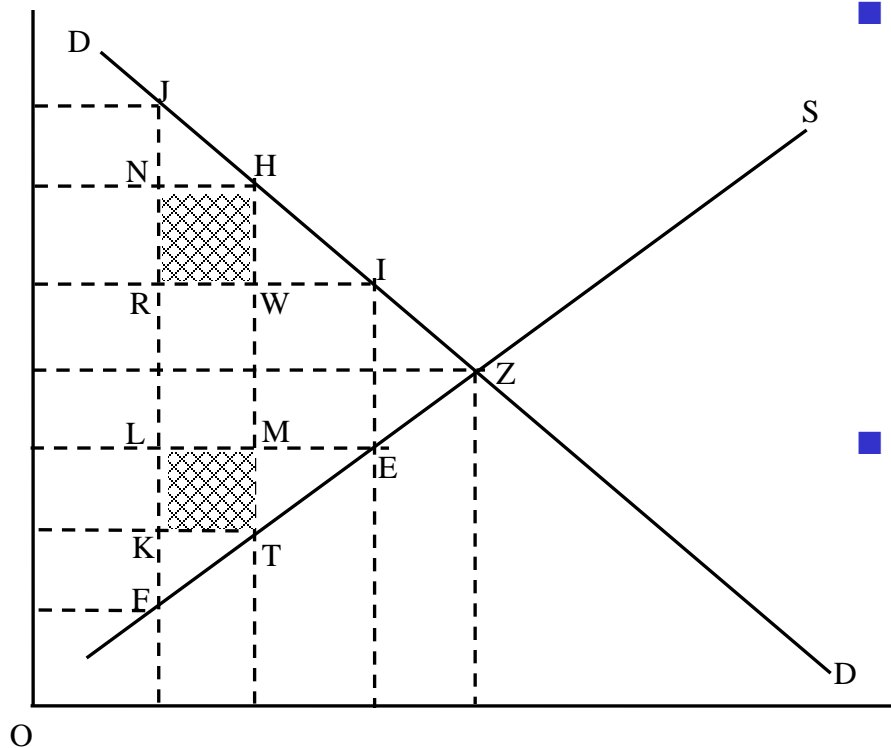
- Improved spatial arbitrage of existing production → more stable and possibly higher average prices
 - Examples:
 - Jensen's (2007) analysis of introduction of cell phones on Kerala fishermen's prices
 - Jenny Aker's (2009) analysis of impact of cell phones on marketing margins in Niger
 - Need good data; this approach captures 1st-round effects only—not longer-term growth or supply response

Example: Fish Prices & Mobile Phone Service in Kerala



Robert Jensen. The Digital Divide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector. *Quarterly Journal of Economics*, CXXIII, 3 (Aug. 2007): 879-924.

Potential Impacts of Reducing Actors' Price Forecast Error



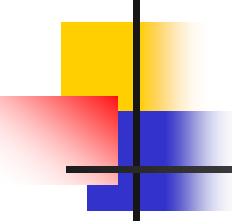
Kizito (2008): Adopted from Hayami and Peterson, 1972

- Aim is to model (using social surplus models) the costs reductions of being off of the equilibrium price and quantity
- Constraints:
 - How to know reduction in forecast error?
 - Quasi-static
 - Estimates of D & S elasticities



Estimates of with/without improved information over time

- Problems of attribution given the complementarity of information with other market improvements
- Better information as an input into better policies, which then improves payoffs to market information (both public and private)
 - Example of OMA in Mali
 - Problem for estimation of impacts → everything is endogenous!



So how to measure impacts of more dynamic effects?

- User satisfaction surveys? Identifying what information comes from MIS vs other sources, including the market itself?
- Contingent valuation? Problems of stated preference vs. revealed preference?



So how to measure impacts of more dynamic effects?

- Revealed preference of funding by public sector or through a users' organization?
 - May be the most reliable indicator, but does this help you ex-ante?
 - Can you duplicate successful models from elsewhere?
 - Donor funding crowding out national funding?
 - Need an explicit transition strategy to national funding
- Are we pursuing an impossible objective in trying to precisely quantify the payoffs to improve market information?
- Quantify what you can, but then build credible stories on more dynamic effects



Your suggestions?

- Thanks for your attention and your help!