“Proactive Fast-Tracking” Spatial Diffusion of Supermarkets in Developing Countries:

Implications for Food Trade and Standards

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Transformation of “Food Industry”

- Retail, second-stage processing (food manufactures), and wholesale
- Happening in 3 “+” waves in today’s developing regions – 5 times faster than did in UK or US

First Wave

“supermarket” take-off in early 1990s: 10% → 50-60% today (overall food)

.. Much of South America, Mexico, East Asia outside China, and northern-Central Europe

Second Wave

- → take-off in mid-late 1990s: 5% → 30-50% today

.. Much of Central America, South Africa, Southeast Asia, southern-Central Europe

Third Wave

- take-off in late 1990s early 2000’s: near 0% → 5-10% today

.. India, China, Vietnam, Russia

= top retail FDI targets in world)

= fastest supermarket diffusion in history

.. Also E/S Africa (much slower/rocky start)

… Possible 4th Wave…

- Just starting, probably strong in future:

… example: other South Asia (e.g. Pakistan)

- Barely starting, probably will be very slow

… West Africa (like 1960s in South America)

Common diffusion paths (broadly) across countries in waves 1-3

Inter-temporal diffusion

- Post-takeoff diffusion follows usual "exponential or J curve"

... appears this (market-) technology's diffusion following the usual "S-curve" in tech. diffusion literature

Intra-regional spatial diffusion

- “rippling in concentric circles” out from (intra-regional) 1^{st}, 2^{nd}, 3rd wave countries

... CEE: global MNC into Poland, then Bulgaria, then Russia

... CEE: regional or 3^{rd}-country MNC into 2^{nd} and 3^{rd} waves: Turkish early into Russia, Slovenians into Croatia

Intra-country diffusion

- "rippling in concentric circles" out from (intra-country) 1st, 2nd, 3rd wave CITIES

... Indonesia: global and regional MNCs and then leading domestic chains

... into Jakarta & Bandung (Java) then Makassar (Sulawesi), then rural towns

... local (to zone) chains pushed out early into tertiary cities and towns

Intra-city diffusion

- Per city, inter-neighborhood diffusion "rippling in concentric circles" out from 1st, 2nd, 3rd wave neighborhoods
- ... Sao Paulo: FIRST INTO UPPER-CLASS

... THEN MIDDLE CLASS

... THEN WORKING POOR

- NOTE: supermarkets NOT just to middle class: deep into food markets of the urban poor

Inter-product diffusion

- “rippling in concentric circles” out from 1st, 2nd, 3rd wave products

... first processed and staples

... then semi-fresh (dairy)

... then fresh (produce) (very recent start; Indonesia, past 4 years!

Determinants of supermarket diffusion

1) DEMAND SIDE factors (emphasized in “pre-takeoff” literature)

a) rising INCOMES

b) URBANIZATION

... both were present in 1980s - before the “take-off”

... “necessary but not sufficient”

Crucial for “takeoff”

2) SUPPLY-SIDE & POLICY FACTORS

a) FDI avalanche (after *national policies* = retail FDI liberalization starting early/mid 1990s); parallel with regional waves

b) PROCUREMENT MODERNIZATION (parallel with regional and product waves)

c) *MUNICIPAL POLICIES*

... encouraging supermarkets

... discouraging small shops and wetmarkets

2. Proactive Fast-Tracking Strategies of Chains

- Literature has emphasized “exogenous” conditions as drivers
- But that is INSUFFICIENT to explain observed extreme “fast-tracking” diffusion
- Reality: chains see conditions as partly ENDOGENOUS

... and have strategies to FAST-TRACK changes in those conditions

... to “PAVE THE WAY” for expansion

Direct

- Reliance on trade: U-curve

a) HEAVY INITIAL RELIANCE on extra-regional imports

b) REDUCE RELIANCE on imports via local supply chain development

... direct (some) and indirect (many) actions

c) RE-INCREASE RELIANCE on trade (import & export, regional network) d)... exceptions (growing?)

- ... START EARLY PHASES 2 and 3 (country is part of global hub) (Wal-mart, Carrefour, and Metro buy 23 billion dollars/year from China...)
- ... “STAY” IN PHASE 1 because easier to import than “wait” for local supply (huge worry in Indonesia)

Direct (continued)

- Procurement system change ("4 pillars")

a) CENTRALIZATION (distribution centers)

b) PREFERRED SUPPLIERS (contracts)

c) "NEW GENERATION" WHOLESALERS

d) PRIVATE STANDARDS

Direct (continued)

- Supply Chain Upgrading

a) *INCENTIVES* for suppliers to upgrade (initial price premia)

b) *CAPACITY* for suppliers to upgrade

... OFTEN helped by donor projects

... also credit via “collateral substitute”

... SOMETIMES spend own funds

... Metro in Vietnam (and India)

- HELP government with legal system (for WTO)
- BUILD cold chain & warehouses
- TRAIN farmers (in partnership with government)
- RECEIVE Donor projects and government help

Indirect

- Concomitant strategies of service-side partners

a) **Wholesalers**

...MOVE out-market

...FOLLOW client-chain's expansion (ex: Putri Segar/Carrefour)

...INVEST (cold chain etc.) for client

...BACKWARD-INTEGRATE: pack house

...FIND new suppliers

b) Multi-national logistics firms
... MOVE at client's behest

Example of above two:
... Brazil
... Carrefour
... Penske Logistics (US global MNC)
... Cotia trading (Brazil wholesaler)

3. Trade and Standard Impacts

- Focus in globalization debate on North-South trade (global MNCs in Europe/US importing from South)

- But South-South trade... and competition.. will become center of globalization debate

... prediction: huge impact on South-South trade of supermarket spread

- ... Carrefour imports Chinese carrots and oranges into Indonesia!
- ... Wal-mart imports beans from China into Central America (coals to Newcastle!)
- ... Wal-mart exports Mexican avocados to China

- Diffusion of private standards through global and regional sourcing networks and FDI

4. Conclusions

- Research ALL OF IT more!
- Development strategy implications

... supermarkets integrate and de-fragment markets

... big opportunity for growth and modernization

... big competitiveness challenge for small suppliers