

E-Commerce diffusion accelerated by COVID-19 in developing regions

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digital revolution in agriculture and the
bioeconomy?”

1. Rapid diffusion of E-commerce pre-COVID

1.1. Take-off in 2000s and rapid diffusion in 2010s of e-commerce in developing regions

1.2. Drivers on demand side:

- a) Consumers, same as with supermarkets:
increasing opportunity cost of time**
- b) Suppliers, drive to reduce transaction costs
and expand market-shed**
- c) SARS in China: big factor in take-off of
Alibaba retail e-commerce in 2003**

1.3. Drivers on supply side, rapid spread of:

- a) Software, computers, mobile phones, internet
- b) e-platforms like Facebook for transactions
- c) FDI and competition among big e-commerce firms (Amazon & Alibaba) and big & small firms domestic investments (e.g. Flipkart in India; Lazada in Singapore)
- d) “**BIG Bricks + BIG clicks**”: Supermarket chains & e-commerce: add division, or acquisitions
JVs: Walmart & Flipkart in India

e) SMALL bricks & BIG clicks (PRE COVID)

... India: Reliance, Jiomart with small shops (1st as mobile-pay & e-commerce FOR shops; 2nd using small shops as “PoS” (point of sale, pick-up) for Reliance’s e-commerce!

f) Big suppliers (e.g. Godrej India) & SMEs sell via e-commerce

... to reduce transaction costs to increase market reach

g) Complementary services, co-evolution

g.1) “Delivery Intermediaries”

... App + delivery (e.g. Swiggy in India)

... delivery for supermarket’s & fast food’s e-commerce (e.g. Instacart, Deliveroo)

g.2) finance

... Alipay, Jiopay

2. Acceleration with COVID-19

2.1. Big jump for e-commerce supply

- a) big jump in FDI and sales by large e-commerce (huge jumps for Alibaba, Flipkart)
- b) as we expected from 2003 SARS...
- c) revival for slow growers (Jumia in Africa)
- d) Constrained in early lockdown (before some relaxation) in some countries by mobility restrictions & labor for delivery
- e) In most places adaptation with contactless delivery/pay

2.2. Big jump in e-commerce demand

a) **Lockdown → big jump in consumer use of e-commerce**

... with “ratchet effect” of big increase in new cohorts (older consumers)

b) **Mobility restrictions → big jump in SME suppliers using e-commerce & delivery intermediaries**

c) **Lockdown + mobility restrictions → jump in small shops using e-commerce (virtual storefront, Jiomart, India)**

d) “Delivery intermediaries” – BIG jump, important

... uber-like firms into delivery firms with apps (SME Bykea in Pakistan)

... Swiggy in India: delivery + app → add loans + hygiene training + safety advertisement + cleaning materials

... fish delivery intermediary SME in Malaysia (SME fish firms to retailers as B2B)

e) Minor phenomena: mostly temporary

e.1) farmer groups selling directly to consumers & neighborhood associations (jump in “CSA”)

e.2) Wholesale markets using e-platforms

... Myanmar beans & pulse traders (facebook)
(now they are abandoning it)

... China wholesale markets associations
(extension of earlier network)

e.3) Will not be major “new trends” except inter-wholesale market networks which already made economic sense

3. Medium-term effect of COVID-19 shock

a) Similar to SARS in 2003, this is overall “ratcheting-up” of the intercept term of the trend of spread

b) Ratcheting up on consumer side

... new adopters (got used to it, learning by doing)

... new cohort (older learn to want & use it)

... PROBABLY consumers expect SARS3, SARS4...

c) Ratcheting up on use of e-commerce & “delivery intermediaries” by SME retailers & suppliers

... just like when Metro (cash & carry wholesaler/retailer for small retailers) started, helped small retailers, so slowed supermarket penetration for a while

d) Hypothesis: e-commerce (before & after COVID-19) no different effect from supermarkets on farmers as procurement system similar