Rural netrepreneurship ecosystem: theory, practice & policy implications

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Why is this a big deal?

By 2016, there are about 2 billion people in this world surviving on subsistence conditions with constraint education, housing, food, healthy and other basic needs, characterizing this market as subsistence marketplace.
Research questions

• Why structure barriers, exclusionary mechanism and immutable conditions facing persistent rural poverty have broken down rapidly in certain regions of the world yet to happen in others?

• How to shape the digital ecosystem to minimize rural micro-entrepreneurs’ risk-return trade-off, and to change rural outputs’ term of trade and wealth creation mechanism, and to increase marginal returns?

• What differences does government policy make in shaping this rural netrepreneurship ecosystem?
Literature review and research contribution

• Review literatures in following three streams:
  • How does e-entrepreneurship differs from basic entrepreneurship?
    • Unique business environment, opportunities, activities, scaling potential, value propositions, & business models
  • Rural entrepreneurship and rural e-entrepreneurship
  • Development economics & rural poverty alleviation

• Lit review found there is no consensus between rationales and evidence, and between developing and developed countries on rural e-entrepreneurship and impacts on poverty alleviation.

• To fill the gap, this research offers a conceptual framework to link rural e-entrepreneurship and poverty deduction.

• In this context, this paper uses case method that involves “what”, “why” and “how” questions to connect ideas of global importance from local practice.
Factors contributed to rural poverty

Historical, inherited & circumstantial origins
- Individual deficiencies in education/skill sets.
- Cultural belief systems led to mental trap and fear that support subcultures in poverty.
- Geographical disparities led weak regional connectivity with outside world.
- Lack of information and competition that drive to upgrade local goods/services.
- Unmarketable local goods/services

Market failure & government failure
- Market failure in produce public goods
- Government failure in over/under supply of public goods
- Political-economic distortions and failure to deliver structural adjustments.
- Overly dependent on outside aids and subsidies that suppress the local organic growth.

ICT led opportunities for rural e-Entrepreneurs
- Un-rival access to information & best practice.
- Lower entry barriers via user friendly e-business ecosystem.
- Direct seller and buyer interface and replace middle men with e-platform.
- Online support for e-startups, customer interface, back office operation, networking, logistics, etc.

ICT barriers for rural e-Entrepreneurs
- Online/offline connectedness.
- Digital divided urban vs. rural
- Human capital deficiency in entrepreneurial culture, business illiteracy and ICT knowledge.
- Ability to adopt and emulate.
- Degree of institutional support, governance, market guided policy and regulation.

ICT & “Potential” Poverty Alleviation Linkages
- Poverty is a motivator to change and to engage outside market.
- ICT helps rural residents to cultivate local resources to explore location based comparative advantages.
- ICT enables market access.
- ICT enhances social network bond, boosts social & human capital in rural community development.
- ICT enables sophisticated financial development for payment system, micro-financing, micro investing, and risk transfer.
- ICT enables sophisticated business analytics and consulting.
- ICT empowers both business & government to target at problems precisely.

Conceptual framework
Appropriate ICT

• The “appropriate ICT” fits unspoken needs of rural netrepreneurs.
• Dismantle complex tech and aim at local problems are far more critical than simply make an inappropriate tech. available.
• ICT for other 80% is affordable, miniaturized, user friendly and relief “headaches”, such as, service billions micro-transactions, microfinancing and mobile P2P payment when banking service is nonexistent or too costly to use.
• Per McKinsey(2015), consumer-oriented innovation represents a key skill that indigenous Chinese firms would like to develop (Woetzel et al. 2015)
A Case of platform business model innovation and rural entrepreneurship Development

• Will a newly emerged digital ecosystem connect informal market, unlock the power at the bottom of pyramid, and deliver economic prosperity?

• How can peasants who do not have much education and ICT knowledge open their e-stores online and create demand-led production clusters off-line spontaneously and endogenously?

• How do they shipping their merchandise around country from remote locations? How do these rural online mobile ventures in turn affect village division of labor and synergize/industrialize the farming process in remote regions? What changes did it bring in poverty alleviation at personal and village level?
Alibaba’s Taobao business model

• China Alibaba’s Taobao e-platform business is an ecosystem which has created to solve market access & financial needs of micro- and small businesses with long tail.

• Microbusiness is defined as taxable income less than RMB 300,000 ($45,000). Many located in rural villages in remote areas far from market centers with business transactions less than a dollar.

  • 8.32 million rural e-shops, created 20 million jobs. By Sept. 2017, rural e-commerce sales ¥836.14b ($133b), 17.14% of China’s total, annual growth rate 38.3% and 5.6% higher than urban area. The poorest 832 counties created ¥81.8b ($13b) sales about 10% of rural total & increased 53.1% higher than rural average.
  • e-shop business has attracted migrate workers return home. This has reduced migrate work force by 12 million. Villages with e-shops has 11.1% migrate workers in comparison with 20.4% in villages without e-shops.
  • Alibaba has covered 500 counties and 22,000 villages. JD.com has covered 1700+ counties and build local service centers and local partner shops. Suning.com has covered 1000+ counties. The express mail services so far have covered 80% rural villages & towns, and have met needs of 5.9 hundreds million rural residence.
The ecosystem of Taobao e-platform

Platform support technologies:
Cloud computing (Aliyun.com), AI, Fintech (Ant financials, AliPay, Yu’e Bao) and Automation (CSN)
What is Taobao village?

- To be a Taobao village, a village has to meet following criteria (Ali Research Center, 2013, 2014).

- A village’s on- and off-line operations are both located in rural area; the rural grassroots e-merchant’s network has to be emerged endogenously, and was not initiated by outside forces, such as government or NGOs.

- A village online sales revenue per year has to be at least RMB 10 million or more ($1.5 million) and the number of e-merchants has to be at least 10% of a village households.

- A village has developed vertical integration production and has local supply chain partners.

By 2017, there are about 490,000 e-shops in these Taobao villages.
Micro-entrepreneurs
Online Business School
Alibaba’s supporting system
For Taobao villages

1ˢᵗ wave
- Sale support
- Marketing support
- Payment support
- Logistic support

2ⁿᵈ wave
- Training service
- e-display service
- IT service
- e-shop park
- .......

3ʳᵈ wave
- Legal service
- Accounting service
- TRIPs service
- Financing service
- .......
Taobao villages partnership with the focal firm and local government

- **Industrial clusters & entrepreneurship network**
- **Digitalization**
- **Entrepreneurship ecosystem**
- **Grass-root rural entrepreneurship**

**Government**
- E-commerce and entrepreneurship training.
- E-commerce development funds.
- E-commerce infrastructure building (road, electricity grid, upgrade internet coverage & speed.)

**Platform ecosystem**
- Create on- & off-line entrepreneurship network which can become main engine for rural economic development.

Source: Ali Research Institute
Dingluo Village

10 hrs by the fastest available transportations
Case: Dingluo village

(Lack both resources and labor)

- One of 14 poorest villages in the poorest region of the Shangdong province.
- In 2010, most villagers were elders & children while majority of working age labors were migrate workers.
- The first e-entrepreneur is a soldier’s wife who learned e-commerce skill by visiting her husband in 2009.
- Now the prosper e-business and local production have attracted many returned migrate workers.
- It industrialized the village on spot via division of labor between generations and product differentiation.
- For every returned migrate worker, it produces 2-5 additional jobs in the village.

Source: Qiao, 2018
The role of government in shaping entrepreneurial ecosystem?

Quadrilemma of market, firms, technology, government.

Market failures; deep/large rural/urban gap.

Impropriate tech - make imported technology available.

Government failures

Big/powerful SOEs & private firms make little room for SMEs to grow.

Improve market connectivity of physical & cyber infrastructure

Tech aims to serve 80% & fit local conditions innovatively

Public good provider which targets at market failures in business infrastructure, education, knowledge diffusion, etc.

Big firms => SME incubators, and knowledge/resource diffusers.
Summary

• Based on China’s experience, digital revolution has great potential to unlocked rural potential at the bottom of pyramid and levitate poverty and deliver development results.

• Competitive market, local governments, SMEs & platform focal firms, technology are four driving forces in poverty alleviation in the case of China.

• The platform focal firm, as natural monopoly, can be good or bad just as capitalism itself.
Provide insights for following Qs that are facing many developing countries

• What role can government policies play at national, provincial and local levels that helped to shape rural entrepreneurial ecosystem?

• How do grassroot entrepreneurs take advantage of informal institutions, such as villages and cultural networks, to negotiate with formal institutional and in turn to drive changes of formal institutions?

• How do grassroot entrepreneurs and institutional environment co-evolved that shaped a unique style of entrepreneurship in underdeveloped market?

The answers & insights from China experience would have implications for both transition and emerging economies since traditional belief simply blames an inefficient government or underdeveloped market.