Mobile Phone Innovation, M-Business and SMEs in Developing Countries

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M-Business is part of a bigger picture

- **B2B** (e.g. supply chain)
- **C2C** (e.g. auction)
- **G2G** (e.g. coordination)
- **B2C** (e.g. retailing)
- **B2G** (e.g. information)
- **C2B** (e.g. price comparison)
- **C2G** (e.g. tax)
- **G2C** (e.g. information)

**e-commerce/m-commerce**

**e-business/m-business**

**e-government**
M-business Local Drivers

- **Increasing device performance/price ratio**: processing power, functionality
- **Growing bandwidth**: as mobile technologies move up through the generations (2G, 3G, etc)
- **Handset culture**: a new generation of young "mobile natives" who have grown up used to having mobile devices
- **Service economy growth**: the steady increase in services as a share of GDP in developing countries
- **Vendor push**: the strong advertising and wider marketing drive from mobile operators and manufacturers to "go mobile".
- **Growing population mobility**: rural/urban drift, increased domestic/global migration and trade
M-Business Value Added Properties/Advantages

- **Ubiquity.** *Ubiquity* means being available at any location at any time.

- **Convenience.** Mobile computing devices are increasing in functionality and usability while remaining the same size or becoming smaller.

- **Interactivity.** Delivery of services requires a higher level of customer support and communication.

- **Personalization.** Largely owned and operated by a single individual.

- **Localization.** Knowing where a user is physically located at any particular moment.
**M-business Landscape**

**Technological Foundations**
- Mobile Devices
- Infrastructure
- Software
- Services

**Commercial Capabilities**
- Value-Added Properties
  - Ubiquity
  - Convenience
  - Interactivity
  - Personalisation
  - Localisation

**m-Business Applications**
- Mobile Finance Case 2
  - Shopping
  - Advertising
  - Content/information provision
  - Intra-business
  - ‘B2B and SCM’
- C2C Case 1
  - Personal services
  - Location-based services

**Wireless Networks**
- Personal
- Local
- Metropolitan
- Wide area

**Local Drivers**
- Technological
- Commercial
- Socio-cultural
- Innofusion
Innofusion – innovation intermediaries

• Innofusion (Fleck, 1993) is required in markets that are less developed in terms of awareness, capability, mechanisms for cementing trust and completing transactions

• Not a front loaded process of laboratory-based research and application development, but a continuous process that allows innovations to diffuse

• Innovation intermediaries that link core innovators with consumers – adapting and domesticating new innovations

• Innovation and diffusion processes are inextricably linked in developing markets.
Case 1
C2C Auction sites
M-commerce Opportunities

- **Cell Bazaar in Bangladesh** 5 million users/84,000 registered sellers/1000 new posts per day
- **Country-wide penetration** – among ordinary citizens, and the ability to access product/service information via SMS
- **Affordability** – even though both buyers and sellers have to pay to use the service, those charges are set at a very low level combined with the low level of SMS charges
- **Network effect** – of existing mobile phone users via its association with Grameen Phone, the dominant established provider of telephone and banking services that is a trusted institution in Bangladesh.

http://www.cellbazaar.com/
Case 1
C2C Auction sites
Limitations on Innofusion

- Unlike eBay, which dominates the trading of second-hand items in the developed countries, **CellBazaar** is only a match-making platform that brings together buyers and sellers.
- Does not support the completion of transactions, offers only initial search facility – providing only basic information about a product that is for sale.

This highlights some key *innofusion* limitations:
- first, the completion of transactions online through trusted electronic payment systems;
- second, sophisticated feedback systems that can establish an online reputation for both buyers and sellers; and
- third, secure and reliable delivery of items purchased.
Case 2
Mobile Finance
M-commerce Opportunities

- **M-Pesa** reaches 9.0 million registered customers/60% of Safaricom's customer base, 23% of the entire population, and 40% Kenyan adults, 16,900 retail stores half are located outside urban centers. US $320 million per month in person-to-person (P2P) transfers.

- There are 27 companies using M-PESA for bulk distribution of payments. Safaricom itself used it to distribute dividends on Safaricom stock to 180,000 (out of 700,000) individual shareholders.

- Since the launch of the bill pay function in March 2009, there are 75 companies using M-PESA to collect payments from their customers. The biggest user is the electric utility company, which now has roughly 20% of their one million customers (including SMEs) paying through M-PESA.

- New innovative services – e.g., M-Shwari - customers sign up directly through M-Pesa menu. There are no forms to complete or need to visit a bank branch. Eligibility for loans based on the individual customer’s M-Pesa transactions and savings history. Leveraging of FIS for credit scoring/targeting and risk profiling for credit products.
Case 2
Mobile Finance
Enablers for Innofusion

• Achieving scale and traction in individual markets – network effects, effective distribution (agent) channels and empathy and trust within the system

• Agents were given some freedom to innovate themselves – addressing particular consumer demands, inc forms of sub-contracting, managing their cash floats and dealing with local crime/security risks

• Some of these innovations were re-absorbed by Safaricom who attempted to create greater standardisation in their distribution networks

• However, innofusion processes are becoming an ever more important enabler for integrating value added services such as M-Shwari.
Conclusions
Supporting Local ‘Inclusive’ Innovation

• Little progress in Internet-based e-commerce over the past 10 years – major developments driven by Mobile networks, devices and applications

• Most successful environments (e.g., Kenya and Bangladesh) for development of m-business have strong emerging local collaborative innovation systems

• Indigenous technological capability (e.g., research labs, hubs and enterprise incubators) are important

• But need to be supported by policies for ‘inclusive innovation’ that focus on encouraging product/service innovation for ‘base of the pyramid’ markets, with a focus on innofusion (refer to paper)
References


