

A typology of mobile uses among small and informal businesses

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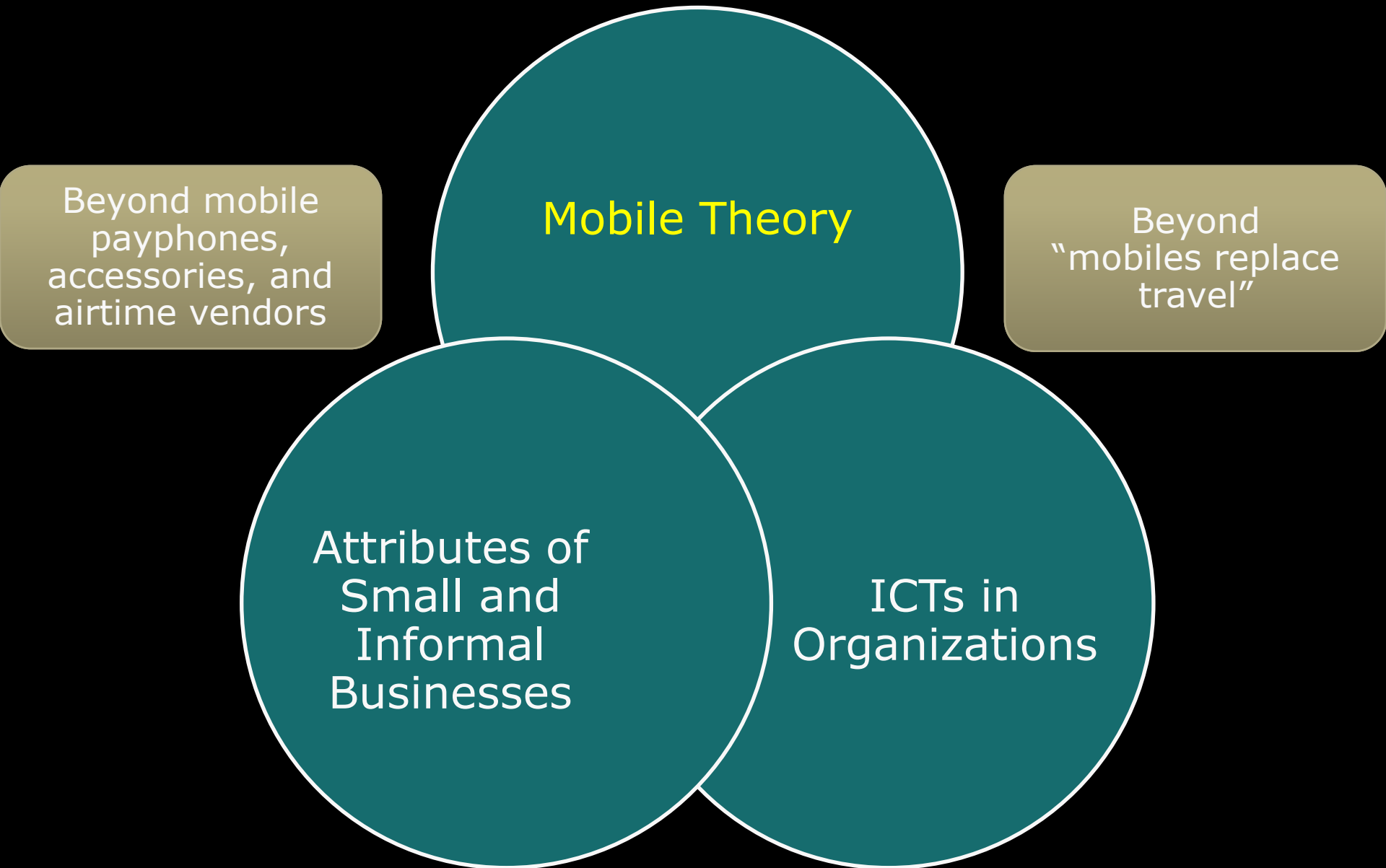
Buy a mobile, run a business

Economist. (2005, 12 March). **The real digital divide**. *The Economist*, 374, 11.

Economist. (2005, 7 July). **Calling an end to poverty**. *The Economist*, 376, 51-52.

Ewing, J. (2007, 24 September). **Upwardly Mobile In Africa: How basic cell phones are sparking economic hope and growth in emerging—and even non-emerging—nations** *Business Week*.

As evidence accumulates, another look



(Really) Small Urban Businesses



Self-employed and small businesses (5 or fewer employees) are majority of businesses in the developing world

- 15 million Indian retail shops <500 sq. feet
- Most are informal, unproductive, and struggle to survive
- Different communication and information needs than formal businesses in developed economies
- Agricultural and non-agricultural alike

Duncombe and Heeks (2001): phones and small enterprise

“Phones are the information-related technology that has done the most to **reduce costs, increase income** and **reduce uncertainty** and risk.

Phones support the current reality of **informal information systems**, they can help **extend social and business networks**, and they clearly **substitute for journeys** and, in some cases, for brokers, traders and other business intermediaries.

They therefore work **“with the grain” of informality** yet at the same time help to eat into the problems of insularity that can run alongside.

Phones also meet the priority information needs of this group of **communication rather than processing of information”**



Jensen, R. (2007) "The Digital Provide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector"

"the adoption of mobile phones by fishermen and wholesalers was associated with a **dramatic reduction in price dispersion**, the complete elimination of waste, and near-perfect adherence to the Law of One Price. Both consumer and producer welfare increased." (p. 879)

Molony, T. (2006). 'I Don't Trust the Phone; It Always Lies': Trust and Information and Communication Technologies in Tanzanian MSEs.



“on prices in particular, reliable information relies on trust and this usually requires a face-to-face relationship, even when ICT is employed to relay the information...”

In this respect, mobile phones can be seen as a **facilitating technology for existing, trust-based relationships.**” (p. 77)



Donner, J. (2004). Microentrepreneurs and mobiles: An exploration of the uses of mobile phones by small business owners in Rwanda

“The exercise identified four distinct perspectives on mobile use...One perspective sees the mobile as an instrument for the pursuit of **business goals**. A second uses the mobile to satisfy **emotional** or intrinsic needs. Two others mix instrumental and intrinsic elements, seeing mobiles as **productivity enhancers**, or as simply **indispensable**.” (p. 1)

Miller, D. (2006). The unpredictable mobile phone.

Horst, H., & Miller, D. (2006). *The Cell Phone: An Anthropology of Communication*.

In-depth ethnographies in rural and urban Jamaica,

“the vast majority of low income individuals...did not use the phone for entrepreneurial activities, unless these were already in place...similarly the phone was not important in obtaining employment (Miller, p. 43).

[thanks to role in maintaining social support networks] “The phone is not much used for making money, but is vital for getting money” (p. 44)

Mobiles help businesses....



Serve existing customers

Get price information

Coordinate with partners

Find new customers

Cut out middlemen

Start new businesses

Author	Title	Pop.	'Impact'					
			Existing Customers	Coord. w/ Partners	Price Info	New Cust	Middlemen	New Biz
Aker '08	The impact of cell phones on grain markets in Niger	Grain Traders			Y			
Jensen '07	Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector	Fishermen			Y			
Opyo & K'Akumu '06	The Case of the Kariokor Market MSE Cluster in Nairobi	Various	Y					
Samuel et. al '05	Africa, Tanzania, and Egypt: Results from Community and Business Surveys	Various , esp. retail +svce	Y	Y				Y
Esselaar et. al '07	ICT usage and its impact on profitability of SMEs	Various	Y	Y				
Molony '06	Trust and Information and Communication Technologies in Tanzanian MSEs	Day Workers, Artisans, Prod.	Y	Y				
Jagun et. al '07	The Impact of Unequal Access to Telephones: Case study of a Nigerian Fabric Weaving Micro-Enterprise	Weavers, Wholesalers	Y	Y			N	
Overa '06	Networks, distance, and trust: Telecom Development and changing trading practices in Ghana	Traders (Yam, Onion)	Y	Y	Y			
Donner '06	The use of mobile phones by microentrepreneurs in, Rwanda: Changes to social and business networks	Various				Y		
Miller '06	The unpredictable mobile phone.	Households						N
Souter et. al '05	The economic impact of telecommunications on rural livelihoods and poverty reduction	Households					N	N

Summary Typology: Research to date

Small/Informal Business Type	Small business activities impacted by mobile use					
	Serve existing customers	Coordinate with trusted partners	Get Price information	Acquire new customers	Bypass middlemen	Start new businesses
Traders	Molony Jagun Overa	Molony Jagun Overa	Aker, Overa Molony			
Producers (small farmers, home based manufacturing, etc)	Esselaar Molony Jagun	Esselaar Molony	Jensen			
Fixed-location retail and services	O&K, Samuel Esselaar	Samuel Esselaar		Donner '06		Samuel
Roaming retail and services						
Transport						Miller

Despite **heterogeneity**, currently more evidence for **amplification** rather than **structural transformation**

Summary Typology: Proposed Utility

Small/Informal Business Type	Small business activities impacted by mobile use					
	Serve existing customers	Coordinate with trusted partners	Get Price information	Acquire new customers	Bypass middlemen	Start new businesses
Traders	Molony Jagun Overa	Molony Jagun Overa	Aker, Overa Molony	(?)		
Producers (small farmers, home based manufacturing, etc)	Esselaar Molony Jagun	Esselaar Molony	Jensen	(?)		
Fixed-location retail and services	O&K, Samuel Esselaar	Samuel Esselaar		Donner '06		Samuel
Roaming retail and services	(?)	(?)		(?)		(?)
Transport	(?)	(?)		(?)	(?)	Miller

Price information is limited to certain positions in the value chain. Little evidence for bypassing middlemen

So what if it's wireless?

Essential Attributes of Mobile	Small business activities impacted by mobile					
	Serve existing customers	Coordinate with trusted partners	Get Price information	Acquire new customers	Bypass middlemen	Start new businesses
Connectivity ('plain-old' coordination)	Broad	Broad	Traders			
Individual addressability, perpetual contact, micro-coordination	Traders,		fishermen = special case	Transport and roaming biz.		Transport and roaming biz.

Lost in the popular discussion: The mobile's wireless/personal attributes are more important drivers of accessibility and affordability than of daily use.

The mobile's (primary) functional benefit to (most) fixed-locale small enterprises remains as an **affordable landline substitute**.

Research Implications

Relatively few small enterprises leverage the technology's mobility functions

- yet these were the early adopters and made good case studies (fishermen, taxi drivers, roaming traders)

Conclusions depend on population and method

- Q-sorts find variety of perspectives
- ethnographies of users find interrelationship
- economic time-series analyses find price effects
- Talking to existing businesses may cause us to see amplification rather than structural transformation

Look back to the existing ICTD literature on landlines.

Mathematical apportionment of 'impact' across the MSE sector is possible, but will depend on distribution of kinds of firms in each region.

- Might help inform m-development policy and rhetoric e.g., who benefits and how?



Theoretical Implications



Studies have documented the important ways mobiles can enable information search and B2C and B2B communication (service and responsiveness)...yet there is little evidence of computation needs. Voice is the killer app....will m-payments follow?

The mobile is not a single artifact; in-depth discussions of 'impact', 'role' or 'utility' must be carefully explicated *vis-a-vis* different functions

- In this case, the statement that "mobile calls substitute for journeys" is clearly true...yet not sufficiently descriptive.

Current evidence suggests that within the small and informal business (MSE) sector, benefits of mobile use accrue mostly—though not exclusively—to existing enterprises, in ways which **amplify and accelerate material and informational flows**, rather than fundamentally transforming them. (e.g., Harper 2005, Castells 1996)

- Challenge for researchers to describe arrival of the connected city and the 'real time city' (Townsend 2000) at the same time

Thank you!

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