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# Mobile Phones and Financial Services in Developing Countries: a review of concepts, methods, issues, evidence and future research directions

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on. This

paper suggests a future direction for research and practice within the mainstream of

micro-financial services and finance for the poor, correcting this imbalance, and contributing towards the mobiles-in-development-research agenda.

## Notes

1 Consultative Group to Assist the Poor (CGAP), Banking on Mobiles: Why, How, for Whom?, Focus Note 48, Washington, DC: CGAP, 2008, at <http://www.cgap.org>, accessed 6 August 2008 [10].

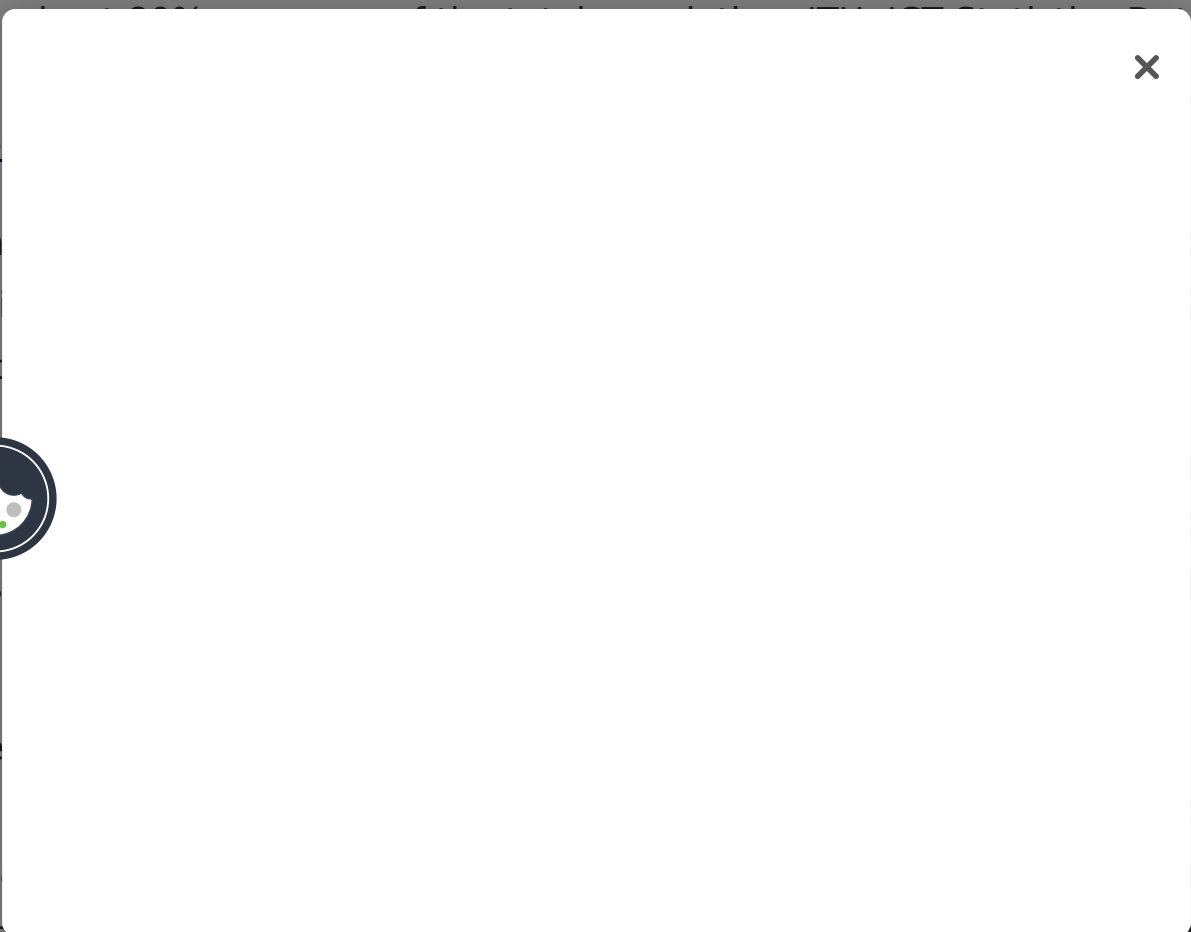
2 The most recent International Telecommunication Union (ITU) data show that in the case of the poorest continent—Africa—mobile penetration for individual countries has increased from an average of 2% of total population in 2000 to an average of 25% in 2007. This impressive growth masks extreme variations between countries, but overall mobile cellular networks have now extended coverage to over 60% of the total African population, creating network access potential for previously un-served communities in some of the poorest countries. Many sub-Saharan African countries with a GDP per capita of less than US\$500 (in 2007) are fast approaching near universal mobile network coverage. For example, Ghana stands at 68%, Rwanda at 80%, Sierra Leone at 70% and Uganda at 60%.

Geneva: ITU, 2008, at <http://www.itu.int/ITU-D/icteye>.

3 J Donnay, 'Mobiles: Complements or substitutes?', *Journal of Development Economics*, vol. 84, no. 1, pp. 1-29, June 2007, at <http://www.sciencedirect.com>.

4 See M. Zmijewski, 'Mobiles: Challenges', *Journal of Development Economics*, vol. 84, no. 1, pp. 30-45, June 2007, at <http://www.sciencedirect.com>.

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account holders by means of text message or menu-driven commands and PIN numbers.

J Donner & CA Tellez, 'Mobile banking and economic development: linking adoption, impact and use', pre-publication draft for Asian Journal of Communication, at [http://www.jonathandonner.com/donner\\_tellez\\_mbanking\\_use.pdf](http://www.jonathandonner.com/donner_tellez_mbanking_use.pdf), accessed 20 September 2008 [17].

6 Porteous defines 'mobile payments' as financial transactions undertaken using mobile devices such as a mobile phone. Mobile banking (m-banking) includes m-payments but involves access by mobile devices to the broader range of banking services, such as account-based savings or transaction products offered by banks. M-payments and m-banking are themselves subsets of the broader domains of e-payments and e-banking respectively. D Porteous, The Enabling Environment for Mobile Banking in Africa, report commissioned by the UK Department for International Development (DFID), Somerville, MA: Bankable Frontier Associates, July 2006, p 3, at <http://www.bankablefrontier.com>, accessed 4 April 2008 [31].

7 Research carried out by James & Versteeg distinguishes between mobile phone subscribers, owners and users and points to some of the methodological problems of defining access to mobile phone services, and the difficulties in relying on data from published sources (eg the ITU) that define mobile phone penetration according to the number of subscriptions per head of population. J James & M Versteeg, 'Mobile phones in Africa', *Journal of African Studies*, 43 (2007), pp 117-126.

8 Based on the findings of the World Bank's *Information for Development* (Washington, DC: World Bank, 2006), pp 10-11, accessed August 2008.

9 Search engines such as Google and Yahoo! (eg mobile search engines) provide financial information (eg mobile banking services) linked with the mobile phone (eg mobile banking services).

10 On-line banking services (eg mobile banking) from within the social network (eg mobile banking) and financial services (eg mobile banking) as well as more specialised services (eg mobile banking) are available. The main reasons are:

computer science, informatics, information systems and information and



communication technologies for development (ICT4D). Databases searched were: ABI-Inform (ProQuest), EBSCO Business Source Premier, Emerald Fulltext and Science Direct, as well as more general searches using both Google and Google Scholar. Additionally, a number of websites specialising in the dissemination of research concerning mobile phones and development were searched (kiwanja.net/ dgroups.org/; mobileactive.org).

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47 Action research is a reflective process of problem solving led by individuals or teams or as part of a 'community of practice' to address issues and solve problems. Action research can also be undertaken by organisations, assisted or guided by professional researchers, with the aim of improving their strategies, practices and knowledge of the environments within which they practise. See, for example, DJ Greenwood & M Levin, Introduction to Action Research: Social Research for Social Change, Thousand Oaks, CA: Sage, 1998.

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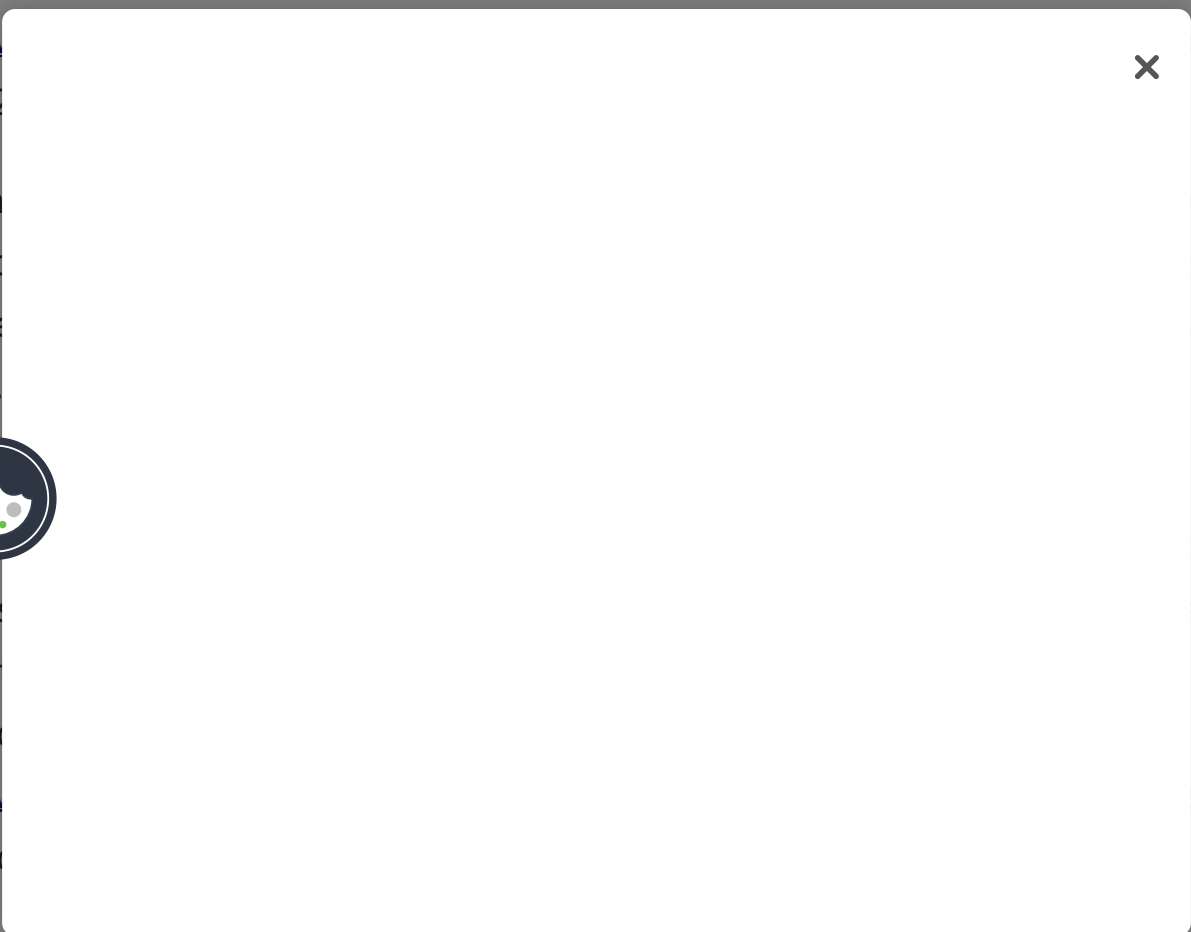
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52 Since 2000 there has been an unprecedented growth in the outreach of Brazil's banking system. The most striking has been the huge expansion in 'correspondent banking outlets', with 32 000 new outlets created between 2000 and 2004. The correspondent outlets focus mostly on transaction and payment services, including government benefits and payment receipts, as well sale of pre-paid cell phone cards and SIM cards. Correspondent outlets have been particularly successful in reaching poor clients, thanks to the considerable reduction in variable and fixed costs of providing services. See A Kumar, A Nair, A Parsons & E Urdapilleta, 'Expanding bank outreach through retail partnerships: correspondent banking in Brazil', World Bank Working Paper 85, Washington, DC: World Bank, 2006.

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