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► Mobile Phones and Financial Services in

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Articles

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

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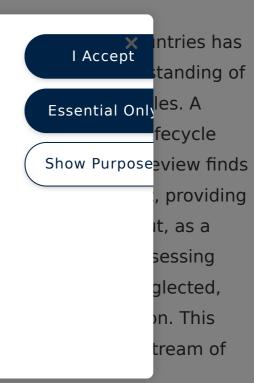
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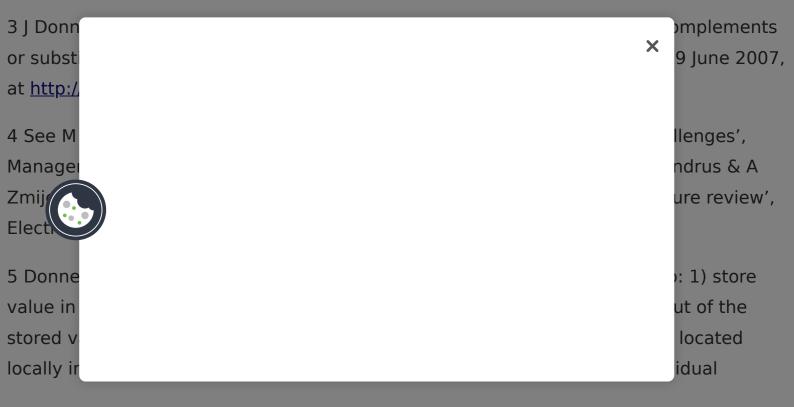


micro-financial services and finance for the poor, correcting this imbalance, and contributing towards the mobiles-in-development-research agenda.

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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 (πυ) 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 80% coverage of the total population. ITU, ICT Statistics Database, Geneva: International Telecommunication Union, 2008, at http://www.itu.int/ITU-D/icteye/Indicators/Indicators.aspx, accessed 27 November 2008.



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, 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: how much do we really know?', Social Indicators Research, 84, 2007, pp 117–126.

8 Based on a schema used by RB Heeks (ed), 'Theorizing ICT4D research', Information and Communication Technologies and International Development (special issue), 3 (3),

2006, pr gust 2008. X eg mobile 9 Search network cial services, finance, ed). developi rom within 10 O the socia banking and finance, more

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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).

11 S Batchelor, N Scott & S Hearn, Senegal Household Survey M-Payments Analysis: Transformational M-Payments, in Association with DFID—Catalysing access to ICTS in Africa, London: Gamos, 2007, at http://www.gamos.org.uk, accessed 2 February 2008 [4].

12 N Hughes & S Lonie, 'M-PESA: mobile money for the "unbanked": turning cellphones into 24-hour tellers in Kenya', Innovations: Technology, Governance, Globalization, 2 (1–2), 2007, pp 63–81 [19].

13 S Aminuzzaman, H Baldersheim & I Jamil, 'Talking back: empowerment and mobile phones in rural Bangladesh—a study of the village pay phone of the Grameen Bank', Contemporary South Asia, 12 (3), pp 327–348 [1].

14 cgap, Use of Agents in Branchless Banking for the Poor: Rewards, Risks and Regulation, Focus Note 38, Washington, DC: cgap, 2006, at http://www.cgap.org, accessed 2 April 2008 [8]; and Porteous, 'The enabling environment for mobile banking in Africa'[31]. See also cgap, Regulating Transformational Branchless Banking: Mobile Phones and Other Technology to Increase Access to Finance, Focus Note 43, Washington, DC: cgap, 2008, at http://www.cgap.org, accessed 6 August 2008 [9]; and cgap, Banking on Mobiles[10].

15 Hughes & Lonie, 'M-PESA'; P Vaughan, 'Early lessons from the deployment of M-PESA,

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17 G Ivatury & M Pickens, Mobile Phone Banking and Low Income Customers: Evidence from South Africa, Washington, DC: CGAP, World Bank and United Nations Foundation, 2006, at http://www.cgap.org, accessed 4 April 2008 [21].

18 M Knight-John, A Zaindeen & S Khan, 'An investigation of the replicability of a microfinance approach to extending telecommunications access to marginal customers', Discussion Paper WDR0506, Version 3.1, World Dialogue on Regulation of Network Economies, 2005, at http://www.regulateonline.org, accessed 12 May 2008 [25].

19 EC Jimenez & PB Roman, 'Electronic banking: delivering microfinance services to the poor in the Philippines', Banking with the Poor Network, Singapore, 2005, at http://www.bwtp.org/pdfs/arcm/Jimenez.pdf, accessed 20 April 2008 [22].

20 I Brown, Z Cajee, D Davies & S Stroebel, 'Cell phone banking: predictors of adoption in South Africa—an exploratory study', International Journal of Information Management, 23, 2003, pp 381–394 [7].

21 UNCTAD, 'E-banking and e-payments: implications for developing and transitional economies', in UNCTAD, Information Economy Report 2007–2008: Science and Technology for Development—The New Paradigm of ICT, Geneva: United Nations, 2007, ch 5 [39].

22 G Coetzee, K Kabbucho & A Njema, 'Taking banking services to the people: Equity's mobile banking unit', Microsave, Nairobi, 2003, at www.microsave.org, accessed 3 April 2008 [14].

23 A Bayes, 'Infrastructure and rural development: insights from a Grameen Bank village phone in 2 [5]. X 24 | Goo ne **Transfor** 2007, 08 [18]. section 25 Ses ratory field rese http://w 26 Ivatu 27 For a 4p research.

see Hee

28 Y Au & RJ Kauffman, 'The economics of mobile payments: understanding stakeholder issues for an emerging financial technology application', Electronic Commerce Research and Applications, 7 (2), 2008, pp 141–164 [2].

29 Williamson 1985; Prahalad 2005.

30 Knight-John et al, 'An investigation of the replicability of a microfinance approach to extending telecommunications access to marginal customers'.

31 Donner & Tellez, 'Mobile banking and economic development'; and J Benamati & MA Serva, 'Trust and distrust in online banking: their role in developing countries', Information Technology for Development, 13 (2), 2007, pp 161–175 [6].

32 F Shamin, 'The ICT environment, financial sector and economic growth: a cross country analysis', Journal of Economic Studies, 34 (4), 2007, pp 352–370 [37].

33 See K Pousttchi & DG Wiedemann, 'What influences consumers' intention to use mobile payments?', Mobile Communications Working Group, University of Augsburg, 2007, at http://www.marshall.usc.edu/assets/025/7534.pdf, accessed 8 August 2008 [33]; and K Pousttchi, 'Conditions for acceptance and usage of mobile payment procedures', in G Giaglis, H Werthner, V Tschammer & K Foeschl, Proceedings of m-Business 2003—The Second International Conference on Mobile Business, Vienna, 2003, at http://mpra.ub.uni-muenchen.de/2912/, accessed 8 August 2008 [34].

34 Brown et al, 'Cell phone banking'.

35 S Choi, D Collins, G Mastuszak & S Collins, 'Mobile payments in Asia Pacific',

Informat X http://ww 2008 [13]; and S Ka and different s & N standard Wishart, at http:// Bankable Front ugh the Financia http://w G Sthepha mputers and Seci

- 36 Batchelor et al, Senegal Household Survey M-Payments Analysis; CGAP, Banking on Mobiles; and CGAP, Regulation of Transformational Branchless Banking.
- 37 Williams & Torma, 'Trust and fidelity'.
- 38 H Yu, K His & P Kuo, 'Electronic payment systems: an analysis and comparison of types', Technology in Society, 24 (3), 2002, pp 331–347 [43].
- 39 For a discussion of these issues, see V von Reijswoud, 'Mobile banking—an African perspective', World Dialogue on Regulation for Networked Economies, 2007, at http://www.regulateonline.org/content/view/948/63/, accessed 20 September 2008 [43].
- 40 D Porteous, Just How Transformational is m-Banking?, Somerville, MA: Bankable Frontier Associates, 2007, at
- http://www.finmarktrust.org.za/accessfrontier/Documents/transformational_mbanking.pdf, accessed 20 September 2008 [32].
- 41 Williams & Torma, 'Trust and fidelity'.
- 42 TS Parikh & ED Lazowska, 'Designing an architecture for delivering mobile information services to the rural developing world', in Proceedings of the 15th International Conference on the World Wide Web (Edinburgh, 23–26 May 2006), New York: ACM Press, at http://doi.acm.org/10.1145/1135777.1135897, accessed 25 March 2008 [29].

43 This model focuses specifically on mobile phone applications, but links into a broader avenue of research that falls outside the remit of this review. This includes a growing

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45 KB Sa ute of -I-Six-Issues,

accessed o August 2000 [33], and Saji & Agarwar, Antecedents or business to business

m-payment technology adoption', paper presented to the second IIMA conference on 'Research in Marketing', Indian Institute of Management, Ahmedabad, 3–5 January 2007 [36].

46 Hughes & Lonie, 'M-PESA'; and Vaughan, 'Early lessons from the deployment of M-PESA'.

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.

48 Porteous, Just How Transformational is m-Banking?.

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49 JH Cheong, M Park & JH Hwang, 'Mobile payment adoption in Korea: switching from credit cards', paper presented to the 15th International Telecommunication Society— Europe Regional Conference, Berlin, 5–7 September 2004, at http://www.itseurope.org/ITS%20CONF/berlin04/Papers/Hwang_paper.pdf, accessed 11 August 2008 [11].

50 Donner & Tellez, 'Mobile banking and economic development'; and O Morawczynski & G Miscione, 'Examining trust in mobile banking transactions in Kenya: the case of M-PESA in Kenya', paper presented at the IFIP WG 9.4-University of Pretoria Joint Workshop, Pretoria, 2008, at http://www.springerlink.com/content/u1r30876431x3432/, accessed 20

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Correspondent outless room 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.

53 D Balaban, 'Going mobile with remittances, technology, mobile banking', Cards & Payments, April 2008, at http://www.cardsandpayments.net, accessed 2 June 2008 [3].

54 S Mendes, E Alampay, E Soriano & C Soriano, 'The innovative use of mobile applications in the Philippines—lessons for Africa', Swedish International Development Agency (SIDA), Stockholm, 2007, at http://www.sida.se/publications, accessed 4 April 2008 [27].

55 See, for example, I Matin, D Hulme & S Rutherford, 'Finance for the poor: from microcredit to microfinancial services', Journal of International Development, 14, 2002, pp 273–294.

56 See G Walsham & S Sahay, 'Research on information systems in developing countries: current landscape and future prospects', Information Technology for Development, 12 (1), 2005, pp 7–24.

57 James & Versteeg, 'Mobile phones in Africa'.

58 The methodology of the review has sought to search out a comprehensive range of

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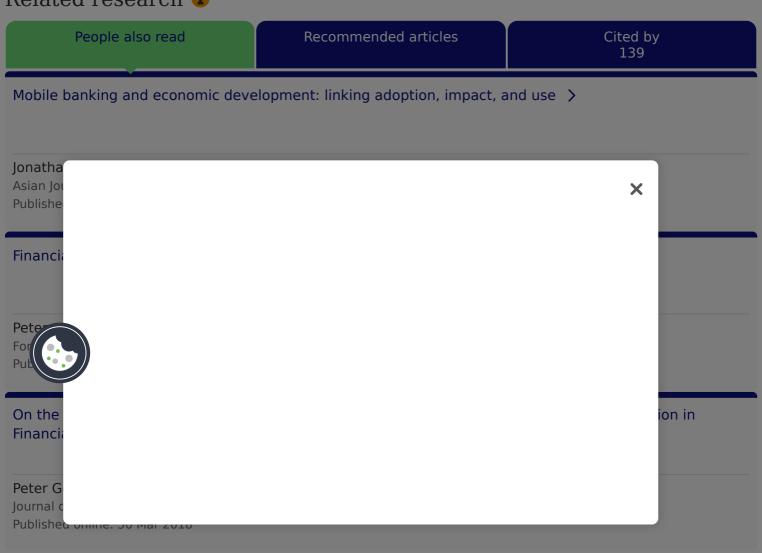
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