Contents

1 Introduction ........................................................................................................... 1
  1.1 The Diffusion of Mobile Phones to the Poor .............................................. 2
  1.2 The Impact of Mobile Phones ................................................................. 4
  Reference ........................................................................................................... 6

2 The Diffusion of Mobile Phones in the Historical Context of Innovations from Developed Countries ........................................... 7
  2.1 The Rogers Diffusion Curve: Developed Versus Developing Countries ................................................................................................. 8
  2.2 An Explanation ............................................................................................. 11
  2.3 The Case of IT and Mobile Phones ............................................................ 12
    2.3.1 Exceptions: Yet Another Curve .......................................................... 13
    2.3.2 Leapfrogging ....................................................................................... 14
  2.4 Conclusions .................................................................................................. 17
  References ......................................................................................................... 18

3 To What Extent Are the Poor Engaged with Mobile Telephony? ........................................... 19
  3.1 Connections Versus Unique Subscribers ................................................. 20
  3.2 Direct Evidence ........................................................................................... 22
    3.2.1 Asian Evidence .................................................................................... 24
  3.3 Affordability ................................................................................................. 25
    3.3.1 The Price of Mobile Services ............................................................... 26
    3.3.2 The Cost of Mobile Handsets .............................................................. 27
  3.4 The Impact on Inequality ............................................................................. 29
  3.5 Conclusions .................................................................................................. 30
  References ......................................................................................................... 31

4 A Pro-poor Bias: Leapfrogging and the Context ........................................... 33
  4.1 The Technology ........................................................................................... 33
    4.1.1 Leapfrogging Characteristics of Mobile Phones .................................. 34
## Contents

4.1.2 Mobile Phones as an Appropriate Technology .......................... 35  
4.2 The Context ............................................................................. 37  
  4.2.1 Network Effects ................................................................. 37  
  4.2.2 Sharing Mobile Phones ...................................................... 38  
  4.2.3 Prepayment ................................................................. 39  
  4.2.4 Rental Markets ................................................................. 40  
  4.2.5 Beeping ................................................................. 42  
  4.2.6 Mobile Banking ................................................................. 43  
4.3 Conclusions ................................................................. 44  
References ..................................................................................... 45  

5 Micro, Macro and Scaling-Up Effects ................................................. 47  
  5.1 Micro-economic Effects .......................................................... 48  
    5.1.1 Macro-economic Effects ................................................... 51  
  5.2 Scaling-Up Effects ................................................................. 53  
    5.2.1 Three Cases of Scaling-Up: Community Phone Shops,  
         Grameen Telecom and M-PESA ............................................ 54  
  5.3 Conclusions ................................................................. 57  
References ..................................................................................... 58  

6 Patterns of Mobile Phone Use in Africa ................................................. 61  
  6.1 Survey Method and Characteristics of Respondents ..................... 62  
  6.2 Results for Four Mechanisms of Mobile Phone Use ................. 66  
    6.2.1 Economics-Related Mechanisms ....................................... 66  
    6.2.2 Health-Related Mechanisms ............................................ 71  
    6.2.3 Social Capital Mechanisms of Use ................................... 73  
    6.2.4 Safety-Related Mechanisms of Use ................................... 76  
  6.3 Cross-Tabular Analysis ........................................................... 78  
  6.4 Conclusions ................................................................. 79  
References ..................................................................................... 86  

7 Mobile Phone Use in Africa: Implications for Inequality  
and the Digital Divide ........................................................................ 89  
  7.1 Hypotheses ............................................................................. 89  
  7.2 Testing the Hypotheses—Calculating Use Scores ....................... 90  
  7.3 Testing the Hypotheses—Results ............................................. 92  
  7.4 Conclusions ................................................................. 93  
References ..................................................................................... 93
The Impact of Mobile Phones on Poverty and Inequality in Developing Countries
James, J.
2016, VIII, 93 p. 4 illus. in color., Softcover
ISBN: 978-3-319-27366-2