

Table of Contents

Glossary.....7

Executive Summary

Introduction.....9

Market Segmentation..... 10

Mobile Commerce Market Trends 14

Payment Market Drivers and Constraints 14

Market Projections 15

Mobile Payments Ecosystem Players..... 18

Recommendations 18

I. Mobile Commerce & Mobile Payments Market Trends

I.1 Introduction.....21

I.2 Market Trends.....22

 I.2.1 Tellabs Interview.....22

 Figure I.1: Tellabs Mobile Backhaul Solution..... 23

 I.2.2 Bango Interview.....24

 Figure I.2: Bango Analytics User Data Snapshot 24

I.3 Market Drivers and Constraints.....25

 Figure I.3: Mobile Payments: Summary of Market Drivers & Constraints..... 25

 I.3.1 Drivers25

 i. User Demand 25

 ii. Increase in ARPU 26

 iii. Increase in Retail Basket Size 26

 iv. Real Alternative to Cash 26

 v. First-time Access to Payments for Many in the Developing World 26

 vi. Lower Churn for Mobile Operators 26

 vii. Increase in International Money Transfers to Developing Countries 27

 viii. Increased Demand for Smartphones 27

 ix. Quicker than Cash at POS (Point of Sale) 27

 I.3.2 Constraints.....27

 i. Availability of Capable Handsets..... 27

 ii. User Experience..... 28

 iii. Lack of Clear Business Model 28

 iv. Resistance from Banks..... 28

 v. Lack of Global Technology Standards 28

 vi. Financial Regulations & Legislation 29

 vii. Support Issues 29

 viii. Transactions Costs for the Retailer..... 29

2. Mobile Payments: Market Structure

2.1 Introduction	31
2.2 Definition	31
Figure 2.1: Mobile Commerce Payment Process	32
2.3 Market Segmentation	32
2.3.1 Digital & Physical Goods	32
2.3.2 Contactless NFC.....	33
2.3.3 Mobile Money Transfer	33
i. Need to increase ARPU.....	33
ii. Need to transmit money.....	34
a. The Unbanked and Underbanked.....	34
b. Migrant Worker Remittances	34
Figure 2.2: World Remittance Flows (\$bn) 2001-2007	35
2.4 Classification of Payment Schemes	35
Table 2.1: Mobile Payment Classification	36
2.4.1 Remote Mobile Payment	36
i. Mobile Phone Bill – “direct to bill” (D2B) Payment.....	36
ii. PRSMS – Digital Goods	37
iii. Online – Payment for the Mobile Web & WAP Billing	37
iv. SMS Payment – Mobile Wallet and Account Based Payment.....	37
Figure 2.3: PayPal Mobile “Text To Buy”	38
v. Person-to-Person (P2P) Payment.....	38
vi. Remote Physical Mobile Web & WAP billing	39
2.4.2 Point of Sale Mobile Payment.....	39
Figure 2.4: Typical NFC Implementation	41
Figure 2.5: Oyster Card Using MIFARE Technology.....	41
Figure 2.6: Uses of NFC	42
2.5 On Deck & Off Deck	42

3. Leading Mobile Payments Vendors

3.1 Introduction	43
3.2 Sybase 365	43
3.3 mBlox	44
Figure 3.1: How mBlox’s PRSMS Service Works.....	44
3.4 Netsize	45
3.5 Valista	45
3.6 WIN	46
3.7 ShopText	46
3.8 NXP	47
3.9 ViVOtech	48
Figure 3.2: NFC-enabled Nokia 3220 Making a Contactless Transaction	48
3.10 Affinity Mobile	49

Figure 3.3: Affinity MADE Platform Enables Basic Banking Applications..... 49

Figure 3.4: Affinity MADE Platform Mobile Ecosystem 50

3.11 Fundamo50

3.12 Trivnet.....52

Figure 3.5: TRIV Platform™ and Applications..... 52

3.13 XIUS-bcgi.....53

4. Leading Mobile Payments Service Providers

4.1 Introduction.....55

4.2 Alltel Wireless.....55

4.3 Cricket.....55

4.4 U.S. Cellular56

4.5 Bango.....56

4.6 mPoria.....57

Figure 4.1: Presenting Products at an mPoria Enabled Mobile Store..... 58

4.7 mobilkom Austria58

Figure 4.2: mobilkom Austria: Buying Train Tickets..... 59

4.8 O2 UK59

i. London Fashion Week February 2008..... 59

ii. O2 Wireless Festival 2007 59

iii. O2 Wallet Trial..... 60

4.9 NTT DoCoMo61

Figure 4.3: NTT DoCoMo Osaifu-Keitai e-wallet Handset Services 62

4.10 Obopay.....62

4.11 SmartMoney.....63

Figure 4.4: Smart Money Service Features 63

Figure 4.5: Smart Money Transfer Process 64

Figure 4.6: SmartMoney Tariff Set Extract 65

4.12 Crandy.....65

4.13 LUUP66

4.14 Visa66

4.15 Celpay.....67

4.16 MoneyBox Africa.....67

4.17 Vodafone68

5. Market Forecasts

5.1 Market Segmentation.....71

5.2 Methodology	71
5.2.1 Approach and Assumptions.....	71
Figure 5.1: Mobile Payments Market Forecast Methodology	72
5.2.2 Geographical Splits	73
5.3 Mobile Subscriber Forecast	74
Figure 5.2: Mobile Subscriber Base (m) Regional Forecast 2008 – 2013	74
Table 5.1: Mobile Subscriber Base (m) Regional Forecast 2008 – 2013.....	75
5.4 Mobile Payments Market Forecasts	75
5.4.1 Digital and Physical Goods.....	75
i. Digital Goods.....	75
Figure 5.3: Total Remote Mobile Payment Gross Transaction Value for Digital Goods (\$m) Regional Forecast 2008-2013.....	76
Table 5.2: Total Remote Mobile Payment Gross Transaction Value for Digital Goods (\$m) Regional Forecast 2008-2013.....	76
ii. Physical Goods	76
Figure 5.4: Total Remote Mobile Payment Gross Transaction Value for Physical Goods (\$m) Regional Forecast 2008-2013.....	77
Table 5.3: Total Remote Mobile Payment Gross Transaction Value for Physical Goods (\$m) Regional Forecast 2008-2013.....	77
iii. Digital and Physical Goods Combined	77
Figure 5.5: Global Digital and Physical Goods Mobile Payment Market: Gross Transaction Value (\$m) Regional Forecast 2008-2013.....	78
Table 5.4: Global Digital and Physical Goods Mobile Payment Market: Gross Transaction Value (\$m) Regional Forecast 2008-2013	78
Figure 5.6: Global Digital and Physical Goods Mobile Payment Market: Gross Transaction Value (%) Regional Comparison 2008 & 2013	79
Figure 5.7: Global Personal Consumption Expenditure Comparison 2001 & 2007.....	80
5.4.2 Contactless NFC.....	80
Figure 5.8: Total Value of NFC Transactions (\$m) Regional Forecast 2008-2013.....	81
Table 5.5: Total Value of NFC Transactions (\$m) Regional Forecast 2008-2013.....	81
5.4.3 Mobile Money Transfers.....	81
i. National Mobile Money Transfers.....	81
Figure 5.9: Total Value of National Transactions p.a. (\$m) Regional Forecast 2008 – 2013.....	82
Table 5.6: Total Value of National Transactions p.a. (\$m) Regional Forecast 2008 – 2013 ..	82
ii. International Mobile Money Transfers	82
Figure 5.10: Total Value of International Transactions p.a. (\$m) Regional Forecast 2008 – 2013	83
Table 5.7: Total Value of International Transactions p.a. (\$m) Regional Forecast 2008 – 2013	83
Figure 5.11: Worldwide Remittances p.a. (\$bn) 2001 – 2007	84
Figure 5.12: Worldwide Remittances Growth p.a. 2001 – 2007.....	84
iii. All Mobile Money Transfers	84
Figure 5.13: Total Value of All Mobile Money Transfers p.a. (\$m) Regional Forecast 2008 – 2013	85
Table 5.8: Total Value of All Mobile Money Transfers p.a. (\$m) Regional Forecast 2008 – 2013.....	85
Figure 5.14: Comparison of National & International Mobile Money Transfer Values (% of all) 2008 - 2013	86
5.4.4 Total Mobile Payments	86

Figure 5.15: Total Mobile Payments Market: Gross Transaction Value p.a. (\$m) Regional Forecast 2008 – 2013	86
Table 5.9: Total Mobile Payments Market: Gross Transaction Value p.a. (\$m) Regional Forecast 2008 – 2013	87
Figure 5.16: Total Mobile Payments Market: Gross Transaction Value by Region (%) 2013	87
Figure 5.17: Total Mobile Payments Market: Market Segmentation split by NFC, Money Transfers & Digital & Physical Goods. Global Forecast (%) 2008 – 2013	88
Table 5.10: Total Mobile Payments Market: Market Segmentation split by NFC, Money Transfers & Digital & Physical Goods. Global Forecast (%) 2008 – 2013	88

6. Standards & Forums

6.1 Introduction	89
6.1.1 Who is Doing What?	89
Table 6.1: Overview of Selected Forum Activity	89
6.2 ETSI	90
6.2.1 Members	91
6.3 The GSM Association	91
6.3.1 Pay-Buy Mobile	91
Figure 6.1: Pay-Buy Mobile Purchasing Process	92
Figure 6.2: Pay-Buy Mobile Ecosystem	92
6.3.2 Mobile Money Transfer	94
6.3.3 Members	95
6.4 International Organisation for Standards (ISO)	95
6.4.1 Members	96
6.5 Mobey Forum	96
6.5.1 Members	96
6.6 Mobile Payment Forum	97
6.6.1 Members	97
6.7 NFC Forum	98
6.7.1 Members	99
6.8 Open Mobile Alliance (OMA)	99
6.8.1 Members	99
6.9 EMVCo	99
6.10 European Payments Council	100
6.11 Smart Card Alliance	100
6.11.1 Members	101
6.12 International Association of Money Transfer Networks	101
6.13 Further Organisations	101