

Banking the unbanked

Future-proofing the least developed countries as they go from cash to online payment

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Introduction: The problem

1.7 Billion people are financially excluded

\$380 billion opportunity

Consequences:

- Difficulty saving
- Difficulty spending
- Reduced job opportunities



Introduction: Proven benefits

- Norwegian Refugee Council - Niger experiment
 - 5 Month relief program - swap from monthly cash payment to mobile
 - Saved 20 hours in travel and wait time
- Norwegian Refugee Council - Kenya experiment
 - Similar study in Kenya
 - 20% increased savings

Introduction: Financially included regions

Region	Account (%)	FI ¹ (%)	M ² (%)
East Asia & Pacific	70.6	70.3	1.3
Europe & Central Asia	65.3	65.1	3.2
Latin American & Caribbean	54.4	53.5	5.3
The Middle East & North Africa	43.5	43.0	5.8
South Asia	69.6	68.4	4.2
Sub-Saharan Africa	42.6	32.8	20.9

Table: Financial inclusion statistics from six regions of the world, aged 15 and up

¹Financial institution account

²Mobile money account

Introduction: Reasons

Common reasons for being financially excluded

Reason	SSA (%)	MENA (%)
Distance to bank	19	5
Services are too expensive	19	12
Lack of necessary documentation	18	7
Lack of trust in financial institutions	10	7
Religious reasons	4	4
Insufficient funds	51	44
A family member has an account	8	7

Table: Reasons for lack of financial accounts in SSA and MENA

SSA: Determining the best suited country

- Example-driven approach
- Contributing factors
 - Country specifics (e.g. mobile penetration rate)
 - Financial specifics (e.g. financial inclusion rate)
 - Population specifics (e.g. literacy level)

SSA: Determining the best suited country 2

Filtering by financial inclusion rate

Country	M (%)	FI (%)	F. Inclusion (%)
Burundi	0.7	7.0	7.0
Central African Republic	0.0	13.7	13.7
Chad	15.2	8.8	21.8
Congo, Democratic Republic of	16.1	15.0	25.8
Ethiopia	0.3	34.8	34.8
Guinea	13.8	14.6	23.5
Madagascar	12.1	9.6	17.9
Mauritania	4.0	19.0	20.9
Niger	8.7	9.5	15.5
Sierra Leone	11.0	12.4	19.8
South Sudan	0.0	8.6	8.6

Table: Financial inclusion statistics for some of the 11 most financially excluded countries in SSA.

SSA: Determining the best suited country 3

Filtering by mobile penetration rate

Country	Mobile (%)	Internet (%)
Burundi	56.65	2.66
Central African Republic	33.62	4.34
Chad	48.07	6.5
Congo, Democratic Republic of	42.77	8.62
Ethiopia	37.22	18.62
Guinea	100.8	21.83
Madagascar	40.57	4.71
Mauritania	104.09	20.8
Niger	40.64	5.25
Sierra Leone	86.13	13.24
South Sudan	20.09	7.98
Average	55.51	10.41

Table: Mobile and internet penetration in SSA for some of the 11 most financially excluded countries in SSA.

SSA: Determining the best suited country 4

Burundi

- Poor: \$261.2 GDP per capita
- 90% work in agriculture for subsistence

Guinea

- Decent economy: \$962.8 GDP per capita
- Over 100% mobile phone penetration rate
- Highest internet penetration rate (21.83%)

Mauritania

- Rich economy: \$1,679.4
- Lists few reasons to needing a bank

Sierra Leone

- Poor: \$527.5 GDP per capita
- Recovering from civil war
- More mobile banks than traditional banks

Guinea

- Dense population (51.94 p/km²)
- 2.6 average years of schooling
- 30% literacy level
- 30% financially literate
- Multiple languages

Guinea: Reasons

Reason	Guinea (%)
Distance to bank	30
Services are too expensive	30
Lack of necessary documentation	38
Lack of trust in financial institutions	15
Religious reasons	11
Insufficient funds	74
A family member has an account	8

Table: Reasons for lack of financial accounts in Guinea

Guinea: Existing banks

- 23.5% are financially included
- 14.6% partake in mobile banking

Existing competitors:

- Orange Money
- MTN Mobile Money

Agent-based model

- USSD
- Use local licensed shops
- Upfront capital
- Shop-owner has a large role
- Higher risk of robberies

Product: Requirements

- ① Different/cheaper than existing competitors
- ② Simple
- ③ Mobile-phone based
- ④ Widely available
- ⑤ Cheap
- ⑥ Ideally be available to the unidentifiable
- ⑦ Support french or the larger languages
- ⑧ Allow for easy transition from cash to online payment
- ⑨ Single player mode

Product: Description

- Two implementations
 - USSD
 - Android
- Agent-based
 - Swap from businesses to local citizens

Product: Features

- Transfer money
- Request money
- Deposit money
- Withdraw money
- View transaction history
- Confirm pending transactions
- Decline pending transactions
- View balance
- Enable/Disable agent status
- Request help
- Register account

Demo

Demo

Conclusion

- ① (✓) Different/cheaper than existing competitors
- ② ✓ Simple
- ③ ✓ Mobile-phone based
- ④ (✓) Widely available
- ⑤ (✓) Cheap
- ⑥ (✓) Ideally be available to the unidentifiable
- ⑦ ✓ Support french or the larger languages
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Questions

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