Mobile Money: A Path for Increasing Financial Inclusion?

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Mobile Phones: the new Local Bank?

In developed countries approximately 81% of adults are banked vs. 28% in developing countries

There are ~5 billion mobile phone users worldwide but only 1.8 billion bank accounts



Mobile Money: 800MM potential accounts in 5 years, already 100+ services



These accounts are currently mostly stored value accounts that allow person-to-person payments, are managed by MNOs, and are untapped by branded financial networks

¹Consumers in countries with large gaps between mobile and bank penetration; defined as mobile penetration >50% and banking penetration <50%; 72 countries qualify.



Goal: Mobile Wallets that provide a full range of payments

Mobile money capability development is primarily focused on providing a rich payments experience. Banking capabilities (savings, credit) are generally not within scope in initial phase.



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Financial Empowerment: the True End Goal of Inclusion

- Current mobile wallet capabilities focus almost exclusively on payments
- "Banking-like" offerings limited to stored value accounts for savings and mobile billing for credit
- Banking relationships provide far deeper financial empowerment, beyond movement of money





Decreasing cost and increasing power is driving growth in digital commerce



Mobile Flows: the Future of Payments

eCommerce will comprise an increasingly larger percentage of payments volumes, with Mobile as the fastest growing component of these flows



Emerging Markets: Cost and Distribution Models Drive Scale

In emerging markets, banks face different economic and access issues to compete effectively for the mass market and underserved / unbanked



Core client segments

- · In emerging markets, mobile operators leverage their existing airtime distribution infrastructure to enable and deliver simple peer-to-peer payment and bill payment products which are aimed at the underserved/unbanked and mass market segments
- Mobile operators operate these accounts as pre-paid value transfers, limiting their exposure and risk

Key Issue: If risk management is not industrial strength, it can be dangerous if payments are driven to open networks

- As the underserved/unbanked mobile payments customers build their financial resources, there is an increasing need for banks to enable and underwrite more sophisticated services
- This leads to greater partnership and commercial • opportunities for banks and MNOs, as well as potentially to increased friction

Key Issue: Banks and MNOs will compete to optimize asset structures, customer data, and revenue flows

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MNOs: Advantages, Up to a Point

MNOS have more efficient entry economics but plateau quickly, banks have financial sophistication but are unable to get early economics to work



Comparative product value for MNOs and banks

The Mobile Landscape: A Closer Look

- Plethora of new participants with a focus on innovative payment solutions, many of which fall outside the scope of formal prudential and consumer regulation
- "Banking-like" offerings limited to stored value accounts for savings and mobile billing for credit



Compared with bank-grade payments, many of the protections in place for traditional 'bank-based' payments, are at best optional in the new models, and rarely auditable and enforceable.



Mobile Operators vs. Banks: Different Models, Different Cost / Benefit Tradeoffs

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	High Level Activity Chain				
	Onboarding	Funding and / or credit provision	Transacting	Post Purchase	
	Customer Acquisition - KYC Merchant Acquisition Account creation	Funds/Deposit capture Credit assessment and approval Capital allocation	Transaction Authorization Fraud and risk management AML Clearing, Settlement	Dispute resolution Reporting, Audit, Enforcement Receipt and Statementing	
		Interdependent Risk and Integ	rity across activities	~	
Bank-grade	 Identification / KYC processes Risk profiling Account creation Regulated, transparent contractual terms 	 Funds capture, fund segregation, deposit protection Credit approval, capital allocation 	 Transaction authorization Fraud monitoring, AML Regulated Clearing and Settlement 	 Dispute resolution, consumer made whole Disclosure, privacy, non- discriminatory, unclaimed property rights, funds availability Regulatory reporting, 	
Payment Facilitators	Rely on underlying bank produ	icts to fulfill formal legal responsibilit	ies • AML?	compliance and audit	
Non Bank Stored value accounts (plastic & non plastic)	 For non-banks, no prudential r KYC: Varies by organization, some adhere but are not regulated No mandated competition or rate setting 	 egulation or enforceable protections Segregated funds optional No (optional) Deposit & bankruptcy protection No (optional) capital requirements 	Optional AML, fraud and counterparty risk management	 No Prudential regulation, therefore no examinations, regulatory reporting, receiverships Optional disclosure, privacy, non discriminatory and unclaimed property rights No funds availability rules 	
Mobile Billing	 Undertaken to Telecommunication regulation standards 	 N/A No funds held Credit offered, secured through underlying payment instrument 	 N/A No funds held Credit offered, secured through underlying payment instrument 	 No prudential regulation Different consumer regulation (less stringent) 	
Virtual Currencies	Not covered by prudential reg	ulation, despite usage as a stored val	ue vehicle for payments —	>	

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U.S. Situation Analysis: mobile payment solutions are proliferating but are not ready for broad success

Digital payments have grown explosively, driving convenience, access, personalization and innovation across the payments industry, but...

Problem 1

Danger of a "shadow payments system" due to inconsistent regulation and coverage, which is introducing risk to consumers and the broader integrity of the payments system

The Solution

Problem 2

Standards to improve the safety of customer credentials have not evolved. Issues include storage of customer credentials and information updates

Broader coordination among industry stakeholders is required to create a path to safety, soundness, and ubiquity as well as a predictable consumer experience



Moving Beyond Payments:

Future challenges with offering savings & credit services through MNOs and other non-financial institutions include AML/KYC and integration with credit bureaus

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Mobile Payments Guidelines: Bank Industry POV

- Consumers expect and deserve parity in protection across all payment methods and providers
- To ensure the ongoing safety and soundness of the payments industry, there is a need to define consistent regulations, compliance and standards, and to ensure they are applied across all participants that enable payments
- This effort should target how and where payment credentials should be:



Structure and guidelines will help focus the mobile payments ecosystem and ensure its successful growth

Action is needed to ensure preservation of a bank's ability to fulfill commitments to its customers and protection of a customer's right to choose how they want to make payments while promoting an environment that will foster participation, competition, innovation and differentiation among banks large and small and among all stakeholders in the ecosystem.



Moving Forward

Progress towards broad adoption will rest on establishing a set of guidelines that define the minimal rules of engagement for mobile payments, and ultimately for all financial services. As the lead product in driving broad adoption, payments are serving as a model for the industry architecture.

Opportunity Areas for Improvement					
Safety	Mobile financial systems must ensure the safety of customer data and the security of the payments system (e.g., fraud, lost/stolen)				
Soundness	The mobile payment system needs to be fully operational and scalable to meet the needs of consumers and participating FIs (ultimately globally) FIs and merchants need to be able to execute against the guidelines and to enable clearing, settlement, scalability, and performance of mobile payments				
Ubiquity	Mobile payments must be available across all channels and devices to use anywhere and integration from a merchant and issuer perspective must be simple				
Compliance	The mobile financial system must ensure compliance with all state, federal and industry regulations and guidelines				

We have a responsibility to ensure that the above conditions exist in order to promote competition and innovation to ultimately benefit the end consumer, fostering convenience, accessibility and inclusion.



Conclusions

- > Mobile money services are rapidly gaining consumer adoption globally and in the U.S.
- Among U.S. bank customers, there is increasingly broad usage of mobile apps for banking functionality
- Current offerings outside of bank relationships are focused on mobile payments with limited other bank services covering savings or credit
 - While MNOs are well-positioned to offer basic payments services across consumer segments, they are not effective models for providing more complex banking products
- Mobile money offerings for underserved and unbanked consumers are focused on payments capabilities and can serve as an effective entrée into the formal financial economy, providing convenience and access to digital goods and services
- Concerns about safety and security are the most significant barriers to broad adoption of mobile payments across all segments of the population

To ensure the ongoing safety and soundness of the payments industry and instill consumer confidence, there is a need to define consistent regulations, compliance and standards, and to ensure that they are applied across all participants that enable payments, and all financial services.

