

The Transformational Potential of M-Transactions

Vodafone
Nokia
Nokia Siemens Networks

Anonymous MIT student

Nov 19, 2008

Vodafone, Nokia, and Nokia-Siemens Networks. *The Transformational Potential of M-Transactions*.
Policy Paper Series No. 6 (July 2007).

http://www.vodafone.com/etc/medialib/public_policy_series.Par.89230.File.dat/public_policy_series_6.pdf

Contents

- 7 papers
 - Overview
 - Early lessons from the deployment of M-PESA, Vodafone's own mobile transactions service
 - Trust and Fidelity: from 'under the mattress' to the mobile phone
 - The regulatory implications of Mobile and Financial Services Convergence
 - Airtime Transfer Services in Egypt
 - Competition Issues in the Development of M-Transaction schemes
 - Mobile Transactions: Through the Window of the Two-Sided-Platforms Approach

Overview

- Aim of this report
 - Contribute to the debate among policy makers assessing the potential for mobile transactions
- Present situation
 - Lack of access to financial service
 - Bad service condition
 - Growth of microfinance
 - Importance of remittance
- Key issues
 - Unknown needs
 - Cultural issues
 - Network effects
 - Regulations

Lack of access to financial service

Image removed due to copyright restrictions.

See Overview: Figure 1, "Number of bank branches and ATMs per 100 people..." in *The Transformational Potential of M-Transactions*.

High interest rate on loans

Image removed due to copyright restrictions.
See Overview: Figure 2, "Interest rates on loans..."
in *The Transformational Potential of M-Transactions*.

Growth of microfinance

Image removed due to copyright restrictions.

See Overview: Figure 3, "Microfinance clients as % of population..." in *The Transformational Potential of M-Transactions*.

Importance of remittances

Image removed due to copyright restrictions.

See Overview: Figure 4, "Financial flows to developing countries, 1990-2006" in *The Transformational Potential of M-Transactions*.

Overview

- Aim of this report
 - assessing the potential for mobile transactions
- Present situation
 - Lack of access to financial service
 - Bad service condition
 - Growth of microfinance
 - Importance of remittance
- Key issues
 - Unknown needs
 - Cultural issues
 - Network effects
 - Regulations

Early lessons from the deployment of M-PESA

- M-PESA
 - Mobile-based payment service in Kenya
 - Launched in 2007 by Vodafone and Safaricom
 - Targeting un-banked pre-pay mobile subscribers
- Service
 - Deposit and withdraw at Safaricom's agents
 - Mobile transaction with Airtime

Early lessons from the deployment of M-PESA

Image removed due to copyright restrictions.

See M-PESA: Figure 1, "Access to Formal Banking"
in *The Transformational Potential of M-Transactions*.

Early lessons from the deployment of M-PESA

- New usage characteristic
 - Paying remote staff their expenses
 - Deposit before boarding a bus
- Registration
 - 111,000 users in the first 3 months.
 - 3.6 million* users by July 2008

*<http://wirelessfederation.com/news/category/m-pesa/>

Trust and Fidelity: from 'under the mattress' to the mobile phone

- WIZZIT in South Africa

Image removed due to copyright restrictions.

See Trust and Fidelity: Figure 2, "Wizzit's mobile banking system" in *The Transformational Potential of M-Transactions*.

Trust and Fidelity: from 'under the mattress' to the mobile phone

- M-PESA in Kenya

Image removed due to copyright restrictions.
See Trust and Fidelity: Figure 3, "The M-PESA System"
in *The Transformational Potential of M-Transactions*.

Trust and Fidelity: from 'under the mattress' to the mobile phone

- Globe Telecom (G-cash) in Philippines

Image removed due to copyright restrictions.
See Trust and Fidelity: Figure 5, "Money transfer..."
in *The Transformational Potential of M-Transactions*.

Trust and Fidelity: from 'under the mattress' to the mobile phone

Image removed due to copyright restrictions.

See Trust and Fidelity: Summary table – function and characteristics in *The Transformational Potential of M-Transactions*.

Trust and Fidelity: from 'under the mattress' to the mobile phone

Image removed due to copyright restrictions.

See Trust and Fidelity: Summary table – consumer experience in *The Transformational Potential of M-Transactions*.

Trust and Fidelity: from 'under the mattress' to the mobile phone

- Potential of mobile payment
 - Reducing information asymmetries
 - Quality of life impact
- Hurdles
 - Widespread cash-in, cash-out system
 - Regulatory compliance
 - Tariff structures for consumers

The regulatory implications of Mobile and Financial Services Convergence

- Deposit Taking
 - Lower barriers to deposit taking
 - Carefully select the asset classes in which transaction banks can place depositors' funds
 - Ensure new entrants have access to central payment infrastructure
- Cross Border Remittances
 - Create international regulatory structures that facilitate cross-border services
 - Facilitate the development of economies of scale across borders
 - Facilitate innovation via the remittance markets

The regulatory implications of Mobile and Financial Services Convergence

- Distribution Channels
 - Revise outsourcing rules
 - Adjust customer due diligence guidelines
 - Consumer Protection
 - Consider scope for telecoms regulators to act
 - Devise appropriate consumer protection measures
- Regulatory Processes and Reviews
 - Set review clauses on regulatory reforms, evaluate and adjust
 - Allow for up-market and cross market expansion

Airtime transfer service in Egypt

- BTS
 - Balance transfer service in Egypt
 - Launched in 2004 by Vodafone
 - Around 1.7 million customers make 20 million transactions every month*

*http://www.vodafone.com/start/responsibility/our_social___economic/access_to_communications/m-transactions.html

Airtime transfer service in Egypt

- Findings from survey on BTS
 - BTS increases access to mobile services
 - BTS improves affordability
 - BTS creates commercial opportunities
 - BTS use supports social networks through
 - BTS is not used as a proxy currency due to

Competition Issues in the Development of M-Transactions Systems

- Competition w/o interconnectivity
 - Monopolized by the leading operator soon, due to strong network effect
 - No choice for customers
 - Service level decreases
- Should regulators intervene to secure interconnectivity?

Competition Issues in the Development of M-Transactions Systems

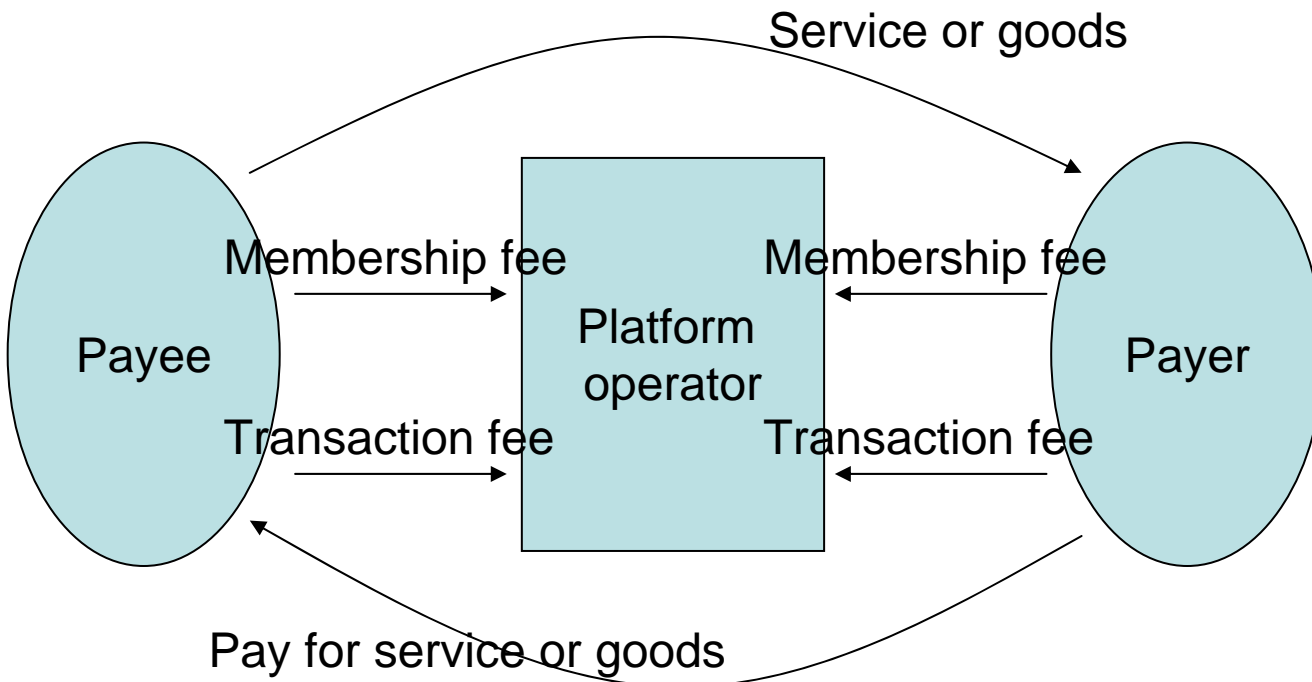
- Benefit side of intervention
 - Increase network benefit
 - Low switching cost for customers
 - Rapid market growth
 - Long-run competition
- Cost side of intervention
 - Less competition in nascent market
 - Low incentive to innovation

Competition Issues in the Development of M-Transactions Systems

- Benefit side of intervention
 - Increase network benefit
 - Low switching cost for customers
 - Rapid market growth
 - Long-run competition
- Cost side of intervention
 - Less competition in nascent market
 - Low incentive to innovation

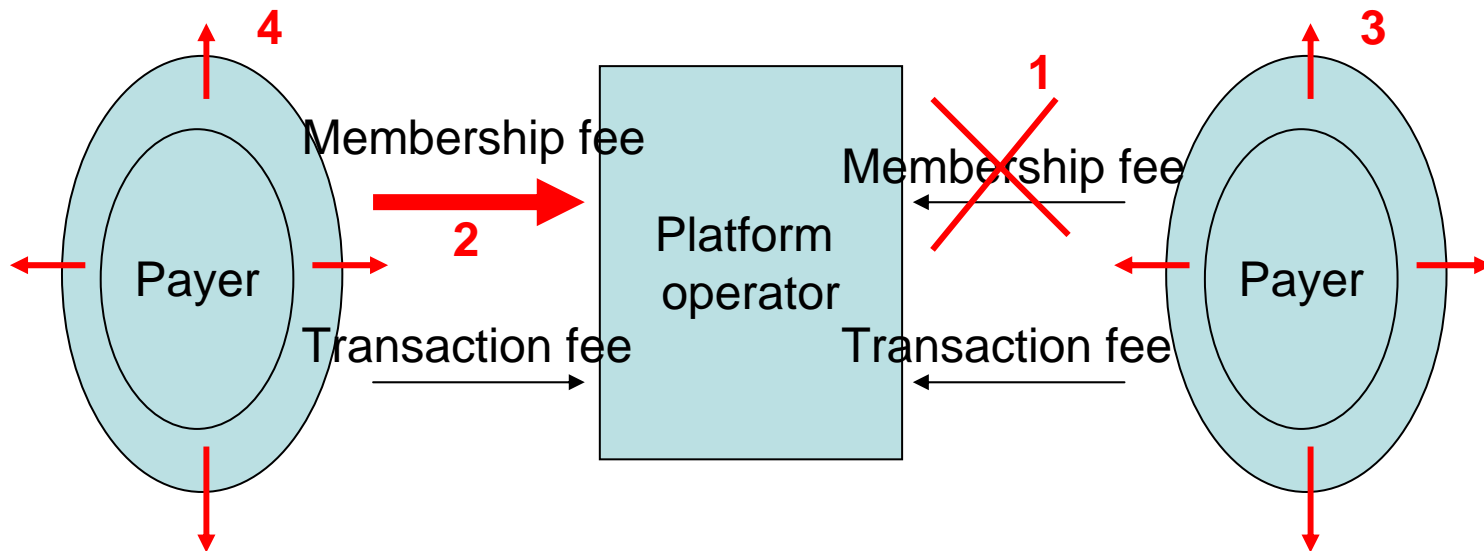
Mobile Transactions: Through the Window of the Two-Sided-Platforms Approach

- Two-sided-platform



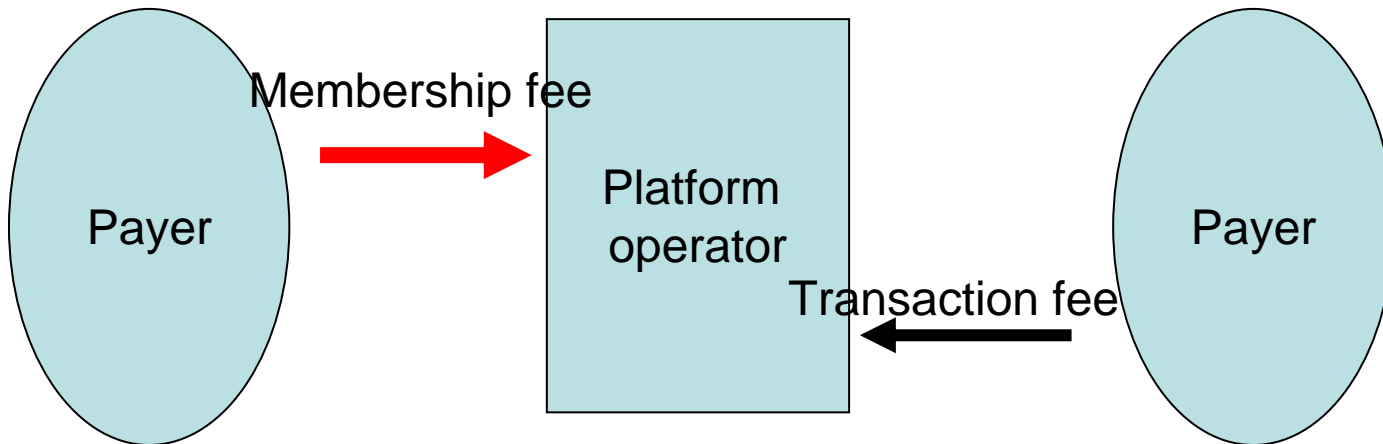
Mobile Transactions: Through the Window of the Two-Sided-Platforms Approach

- Membership fee
 - Divide-and-conquer strategies
 - Tying strategies



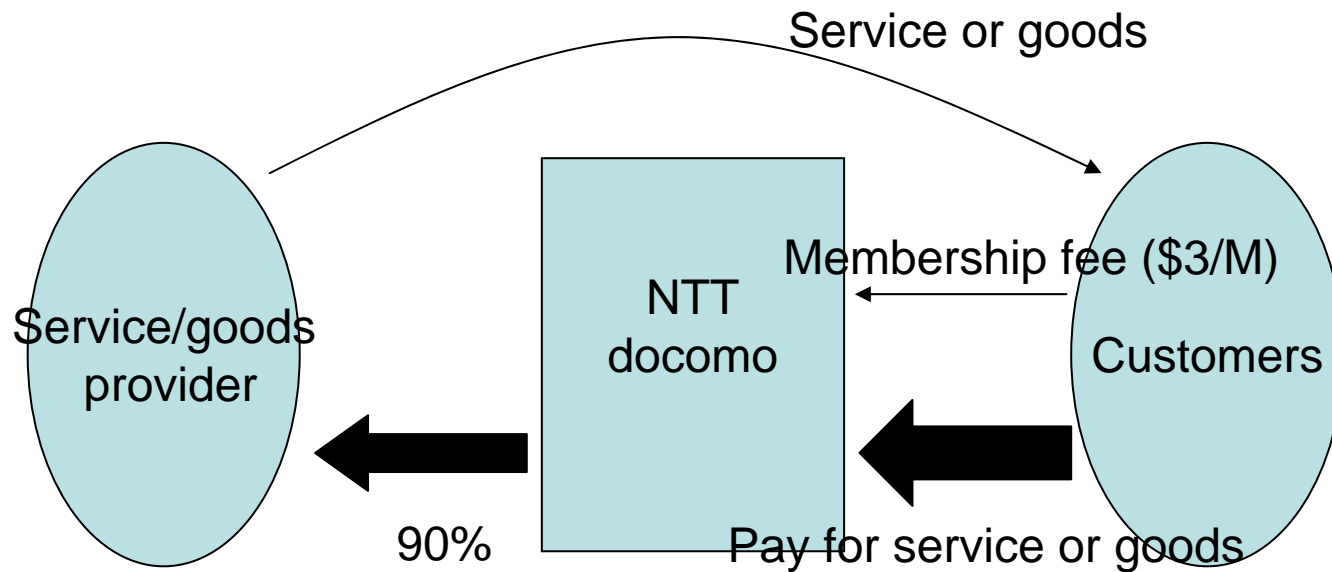
Mobile Transactions: Through the Window of the Two-Sided-Platforms Approach

- Transaction fee
 - Step1: Determine total transaction price
 - Step2: Determine allocation on both sides



Discussion

- NTT docomo i-mode platform



Pay together with communication charges

T QÁJ ^} Ô[~!•^Y æ^
@j k& ð æà á

T UÈÈÍ ÍÁ ÈÏ Í ÁÒÒÈÈ Á^cŠaaÁÖ^•š } ā * Á [àá^Á^&@[[| * a•Á [Á@Á^cÓqā } ÁV^!•
Øá|ÁÈÈ

Q |Á f |{ æā } Áæ[~ c&ā * Á@•^Á æ^!æ• Á |Á ~ |Á^!{ •Á -Á^Èā āk @j k& ð æà á È^!{ •È