

November 17, 2009

# Explaining International IT Application Leadership: Contactless Mobile Payments

## **Presenters:**

Robert Atkinson, President, ITIF

Stephen Ezell, Senior Analyst, ITIF

## **Respondents:**

David Jeppsen, Vice President, NTT DOCOMO USA

Mark MacCarthy, Adjunct Professor, Georgetown University



# Today's Presentation

**1**

**Which countries are leading in mobile payments?**

**2**

**What factors have led to their success?**

**3**

**What can the U.S. learn from the global leaders?**

**4**

**Policy recommendations for the United States.**

# Which Counties Lead in Contactless Mobile Payments?

Metric/Statistic	Japan	South Korea	United States
Mobile phone penetration	87%	93%	88%
Number mobile wallet capable phones	78 million	12 million	Only in trials
Number citizens using mobile wallets	17 million phones; 68 million smart cards	3.6 million phones; 18 million T-money smart cards	Only in trials
Number merchants deploying POS readers/ Total number deployed	608,000 merchants/ total number POS readers greater	500,000 POS readers deployed	140,000 merchants deploying/500,000 POS readers

# Contactless Mobile Payments in Japan

## DOCOMO's Vertically Integrated Approach:

- Forged 2004 relationship with Sony to develop osaifu-keitai
- Exerted leverage on device manufacturers to produce FeliCa-enabled phones
- Subsidized the deployment of reader terminals with merchants
- Took equity position in Sumitomo Mitsui Card
- Put marketing muscle behind promoting contactless mobile payments
- Did not seek exclusive rights to Mobile Felica

*But why did DOCOMO do all this?*



# Contactless Mobile Payments in South Korea

## T-money

- Launched in 2004 by Korea Smart Card Company JV
- A transportation card and electronic money platform
- Designed from the beginning to be extensible and interoperable
- 30M contactless transactions/day in mass transit; 3M as electronic money

## SK Telecom's Moneta

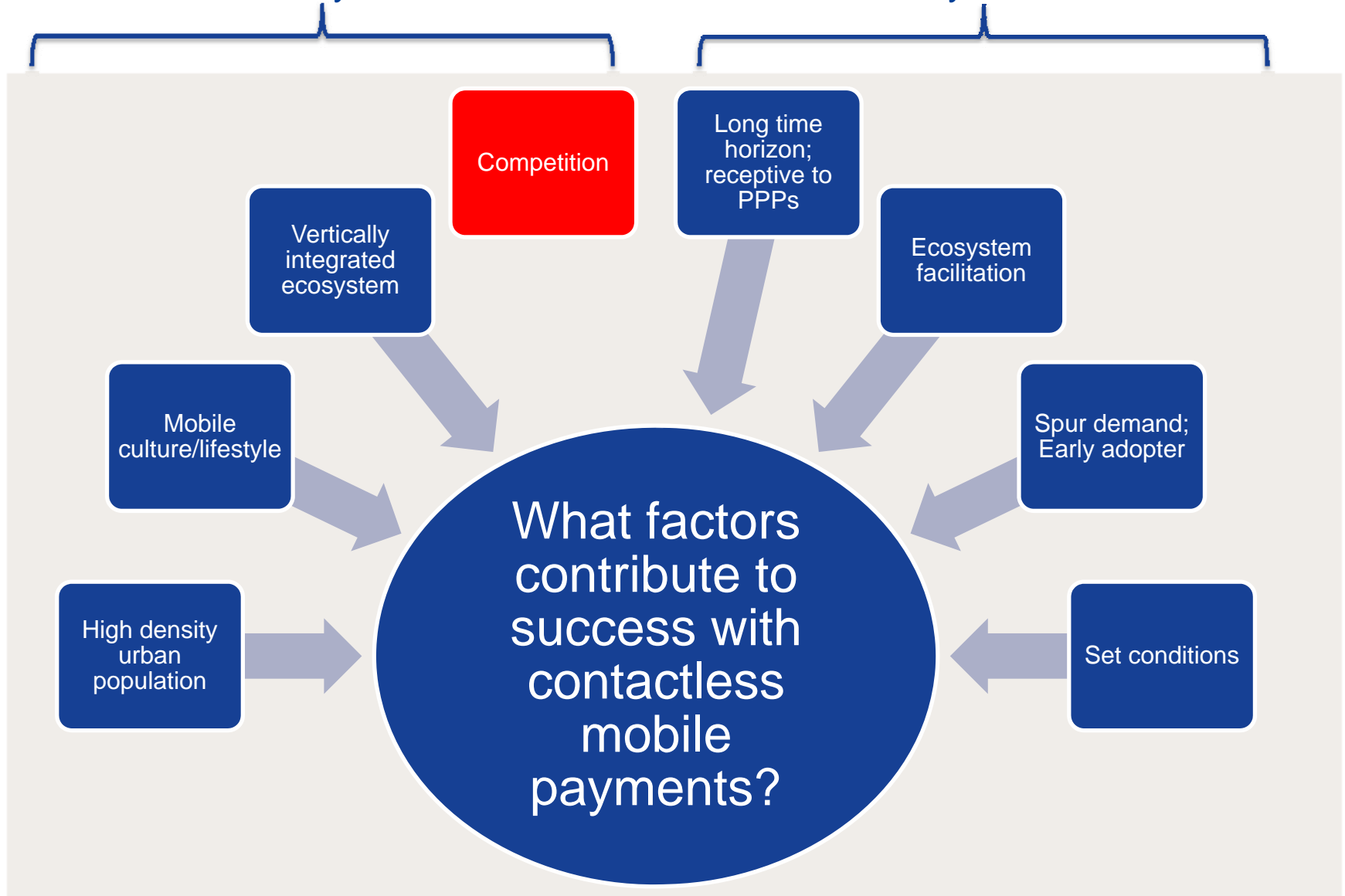
- Mobile wallet application launched 2002
- Met with middling success
  - Fears of technology lock-in
  - Distrust from bank partners

## Mobile T-Money



## Non-Policy Factors

## Policy Factors



# How Governments Drove Mobile Payments

## Japan

- Government strategy based on conscious decision to *furnish overall direction and motivate activity of private sector*.
- Subtle, behind-the-scenes role to ensure collaborative alignment of actors.
- Openly worked to promote FeliCa as a global standard for mobile wallets.

## South Korea

- Spearheaded creation of Korea Smart Card Company.
- Organized and hosted formal meetings with carriers and banks to support standards setting.
- Developed mobile payment systems for taxis and other public services.

# Examples of Government Engagement

## Singapore

- Formed a roundtable group of banks, mobile network operators, and transit companies, with intent of developing national NFC strategy.
- Created a national trusted third party to ensure interoperability between NFC services of mobile operators and service providers.

## United Kingdom

- Smart and Integrated Ticketing Study assessed deploying universal smart ticketing coverage in UK public transport.
- Found benefit of deploying NFC for contactless payments could save £2B/yr.

# What Can the United States Learn from Global Leaders?

- Transit operators, card issuers, and mobile operators should work out upfront electronic wallet capabilities/standards for smart cards and mobile phones.
- Need for a fully-open, interoperable mobile payments system.
- Opportunity is missed if electronic wallet is not a multifunctional device with cash, information storage and transaction, ID, and communication features.
- Participation of mass transit systems is critical.
- Government engagement is crucial to catalyze demand, set conditions, and facilitate ecosystem development.

# Policy Recommendations for Contactless Mobile Payments

- Create an inter-government mobile payments working group and private sector advisory council to develop a U.S. mobile wallet strategy
- Government at all levels should assume a leadership role
  - 1) Require mass transit agencies to deploy interoperable contactless systems
  - 2) Deploy NFC-enabled POS terminals in all government facilities
  - 3) Require gov ID programs to house electronic wallets on the card
- Harmonize and extend consumer protections
- Recognize enhanced security of contactless payments
- Encourage competition and do not favor entrenched interests

# Thank you!



[sezell@itif.org](mailto:sezell@itif.org)  
202.465.2984  
[www.itif.org](http://www.itif.org)