



Tap and Grow? The Case for Contactless Payments in the US


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IQPC Contactless Summit

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First ... A Story ...



MPD Reality Payments

icache

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Their Biggest Challenge?

Consumer Adoption

Examining The Market For Contactless

Fewer than 12% of the market for contactless had contactless readers and 0.5% of merchant locations overall did

| | New York | Boston | San Francisco |
|--|----------|--------|---------------|
| Current contactless merchant locations | 984 | 402 | 64 |
| Total # of targeted/potential contactless merchant locations | 10872 | 3230 | 2407 |
| Current contactless penetration (as a percentage of potential contactless merchant locations) | 9% | 12% | 3% |
| Estimated total # of merchant locations | 246,042 | 74,779 | 56,298 |
| Current contactless penetration (as a percentage of all merchant locations) | 0.40% | 0.54% | 0.11% |

Note: based on MasterCard PayPass merchant locations. Includes merchant locations within 10 miles of the cities

Source: MasterCard, Superpages.com

The Decision: Mag Stripe Now, Maybe Contactless Later



The Contactless Value Proposition

"This is really an innovative introduction that will fundamentally change how people use cards, as significant as when the magnetic stripe was introduced 30 years ago."

Chase Card Services



Blue with ExpressPay will help consumers and merchants reap substantial benefits in terms of speed and convenience."

American Express



"We're confident our customers will embrace the convenience and speed the cards offer, and enjoy the benefit of being able to track their smaller purchases for greater financial control."

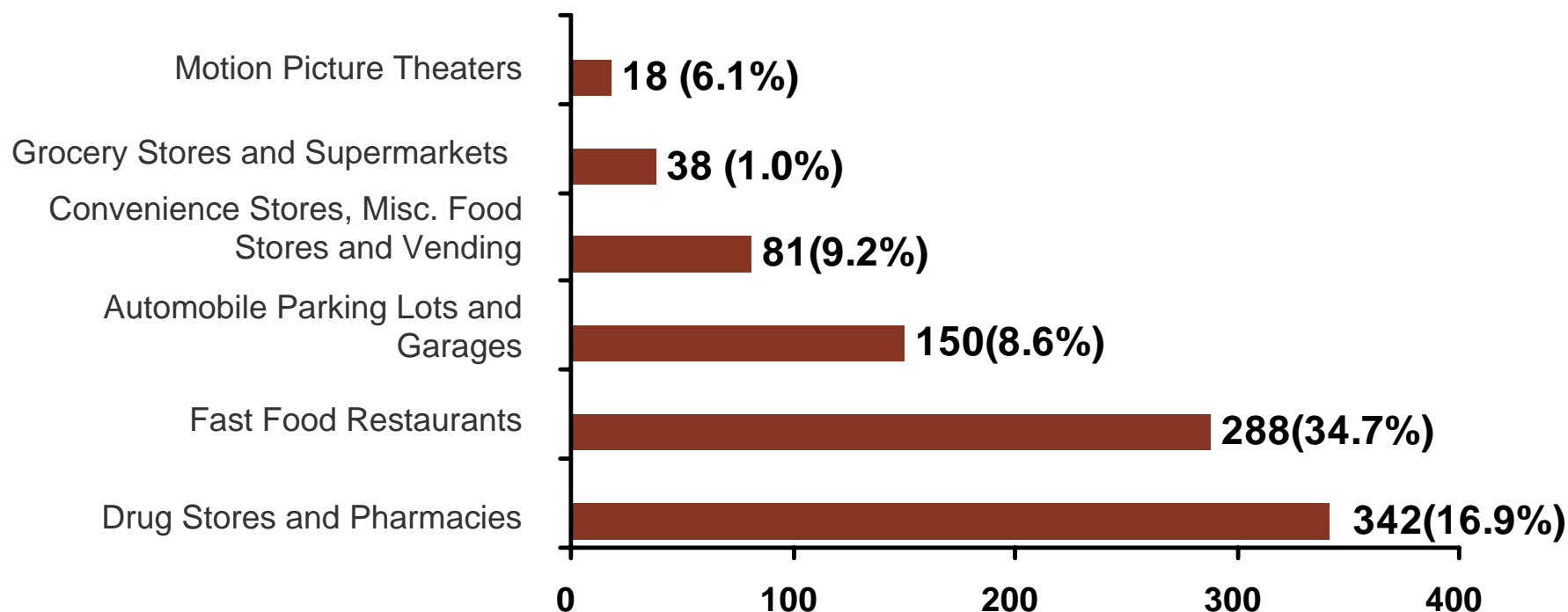
Wells Fargo Card Services



Speed. Convenience. Higher spending levels

Some Merchants Are Getting On Board

*PayPass Locations in New York Metro Area
(top 6 categories)*



Source: MasterCard PayPass website

“Given that so many of our customers are all about speed of service and convenience, this is a perfect fit.” – McDonalds

And (Some Say) For Good Reason



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Chase Credit Cards with blink – Fact Sheet

What is blink?

- ✓ Chase cards with blink are contactless credit cards that allow cardmembers to hold the card in front of a reader instead of swiping, signing or entering a pin.

The new Chase

increased sp

Consumers

credit cards

contactless p

Using Chase

both consum

Chase cards

merchants h

How it Works

✓ Chase cards

at checkout,

✓ As cardmem

quickly emit

Chase cards

sale reader.

data and sec

Benefits for Card

As of January 20

Georgia, New Je

everyday. Now

purchases where

✓ Get in and

because they no longer need to hand their card to the cashier. The most significant time savings

are realized in quick service restaurants, drive-thrus, convenience stores, drug stores and movie

theatres, allowing consumers to pay faster and spend less time in line.

✓ Enjoy greater convenience. Keeps consumers from fumbling around looking for change or

small bills.

✓ Purchase with confidence. Chase cards with blink offer the same security and privacy

protections consumers and merchants have come to expect from Chase; plus, making payments

with blink provides better record keeping than cash.

✓ All the benefits of a Chase credit card. Consumers can use the Chase cards with blink

anywhere Visa and MasterCard are accepted and use the blink feature wherever contactless

payments are accepted.

Benefits For Merchants

Merchants currently accepting Chase cards with blink include 7-Eleven® stores, AMC Theatre®,

Arby's, CVS/pharmacy, Dunkin' Donuts, KFC, RaceTrac, Regal Entertainment Group, Sheetz, Sony

Style stores, Walgreens and Wawa among many others. Initially, this payment approach is being

adopted at locations where speed and convenience are critical.

✓ Speed customers through checkout. Merchants can reduce customers' time at the point of

sale by 30 to 40 percent.

✓ Increase consumer spending. In one pilot, participating merchants realized a 20-30 percent

increase in customer spending when using contactless cards as compared to customers paying by

cash.

✓ Attract new customers and increase customer loyalty. The customer experience is enhanced

by reducing the wait-in-line time, leaving more time to enjoy the purchase itself.

“In one pilot, participating merchants realized a **20-30 percent increase** in customer spending when using contactless cards as compared to customers paying by cash.”

Source: Chase Blink Fact Sheet

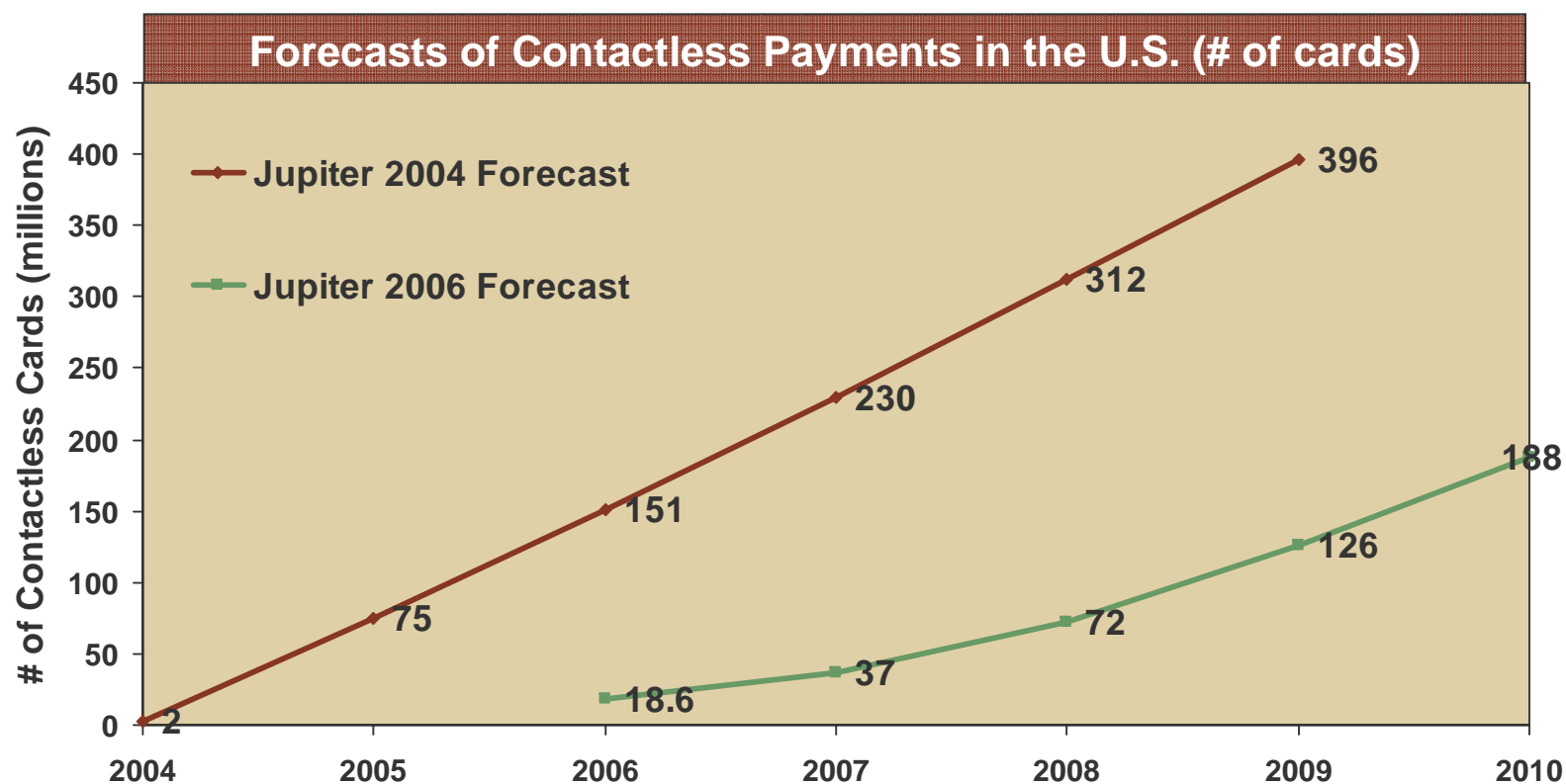
But Others Continue To Sit on the Sidelines

**“We have to see where
the market is going
with this.”**

Dunkin Donuts



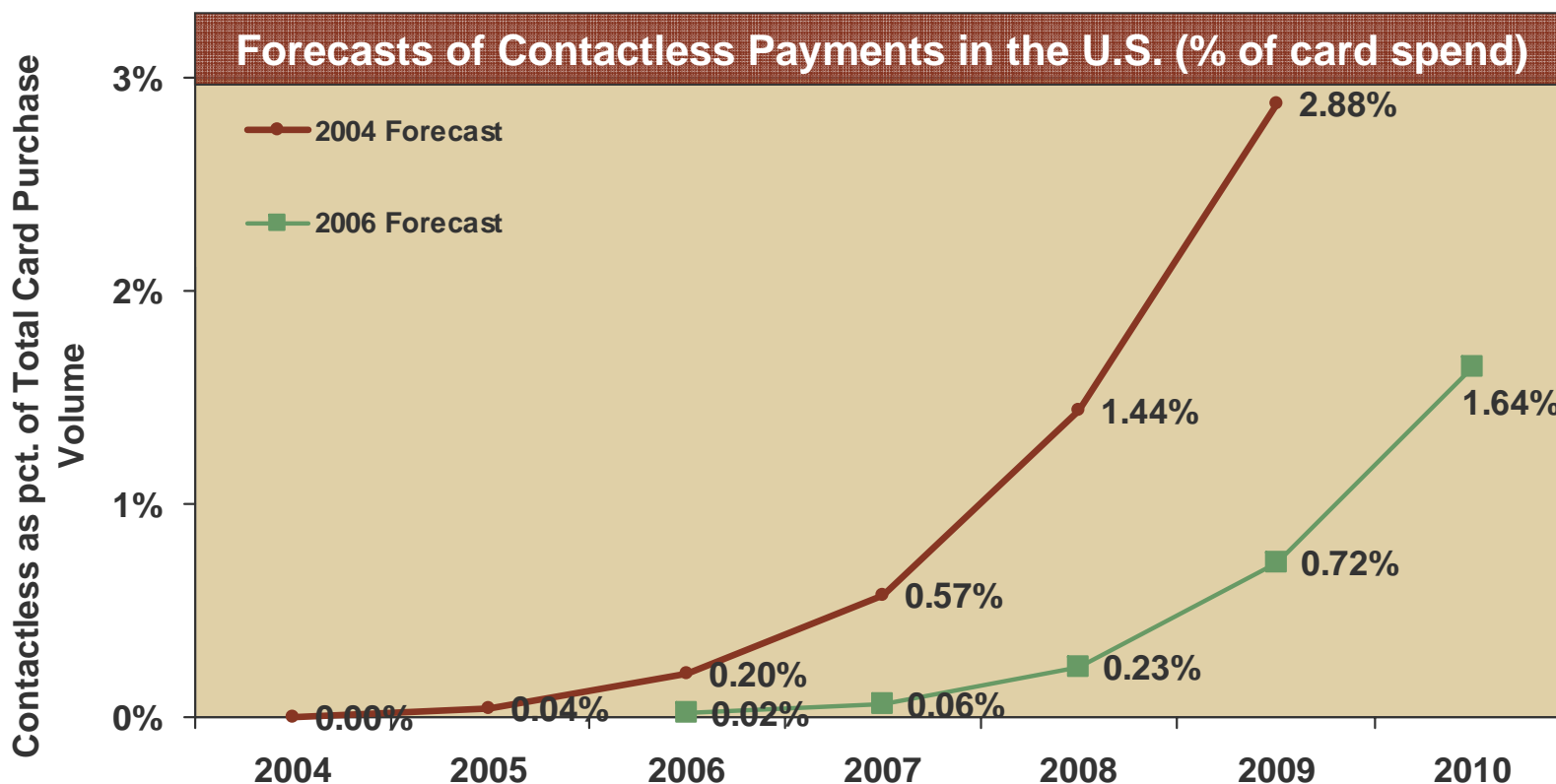
The Current State



Source: Jupiter Research reports: Proximity Payments (2004)
& US Contactless Payments (2006)

Between 2004 and 2006, Jupiter cut the forecast for contactless cards (in numbers) has by 70%.

Contactless As a Percentage of Card Spend



Source: Jupiter Research reports: Proximity Payments (2004)
& US Contactless Payments (2006)

Jupiter also cut their forecast of contactless as a percentage of all card purchasing in 2009 by more than 75%

A “Real World” Snapshot

MPD Reality Payments

**MPD
Generation XY
Survey**

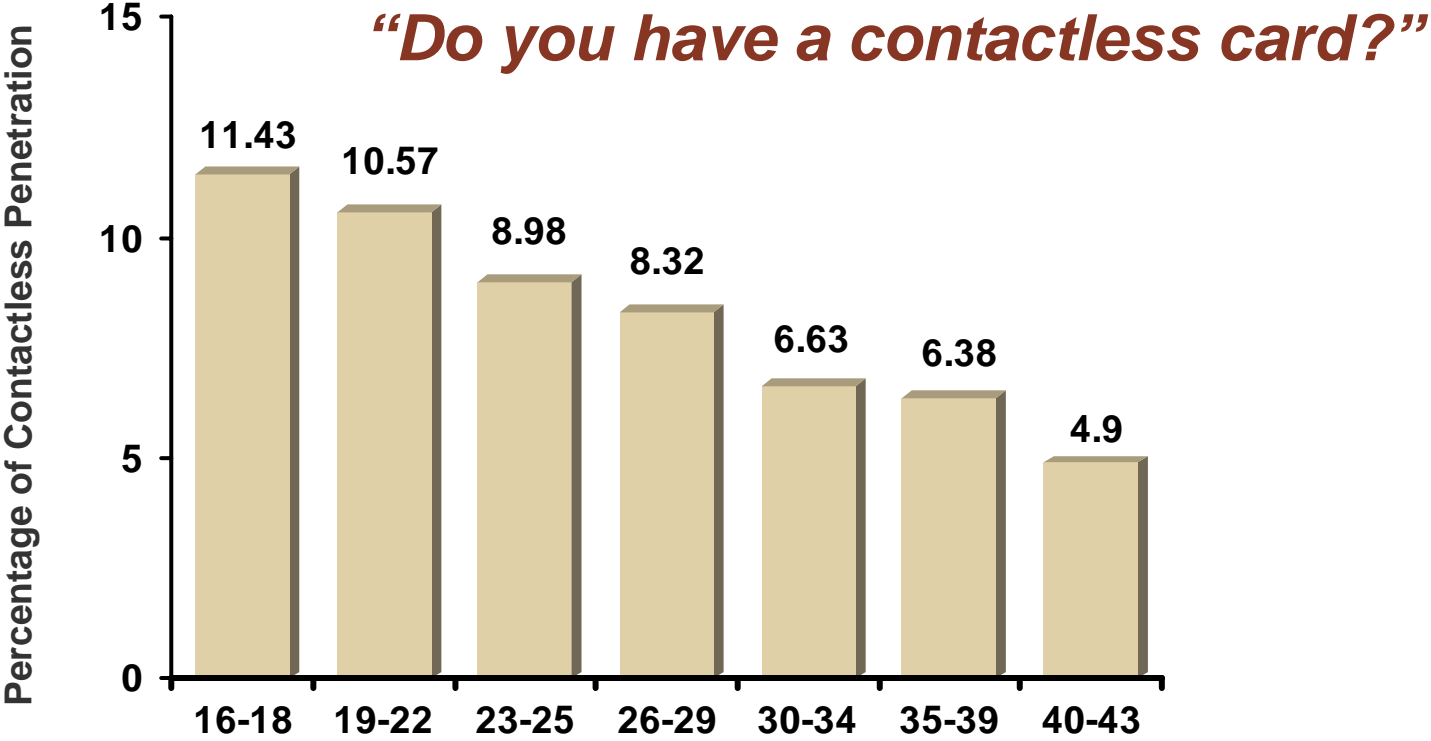
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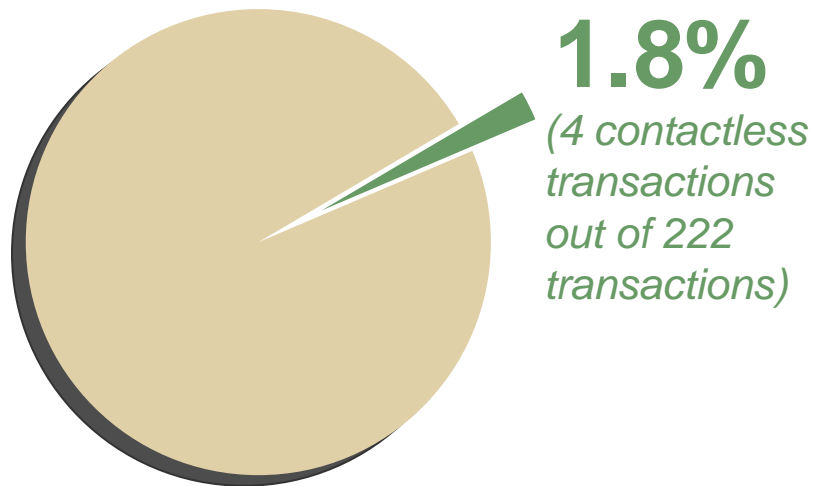
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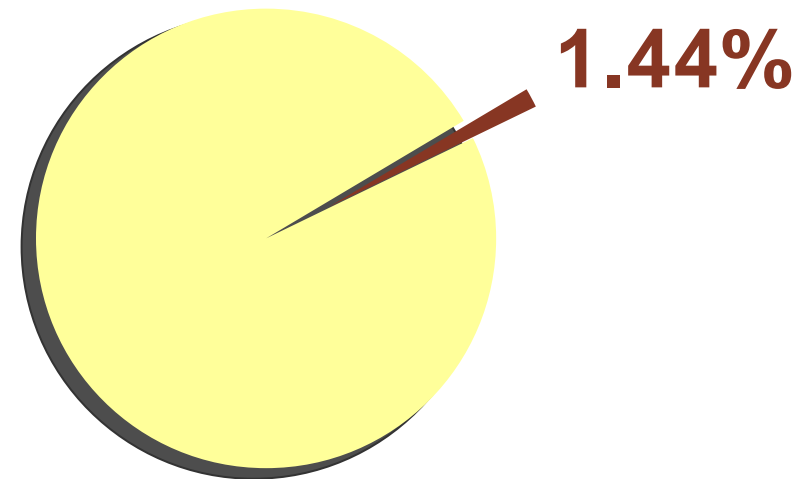
The Scoop on Contactless Penetration



The Scoop On Usage: *Contactless Transactions*



Contactless transactions as a percentage of total number of transactions of <\$25 purchases



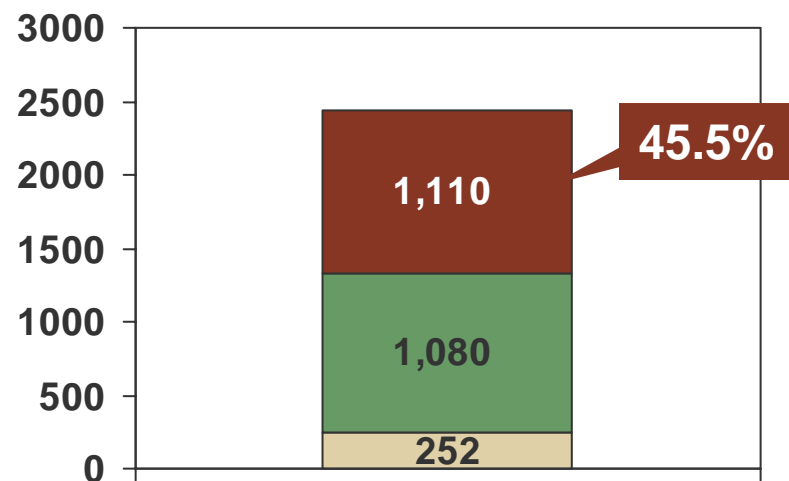
Contactless transactions as a percentage of total spend of <\$25 purchases

Source: MPD Generation XY Survey

But fewer than 2% of all transactions take place on a contactless card – and contactless transactions account for only slightly more than 1% of all spend

What Is the Available Market for Contactless?

According to our Gen X/Y survey

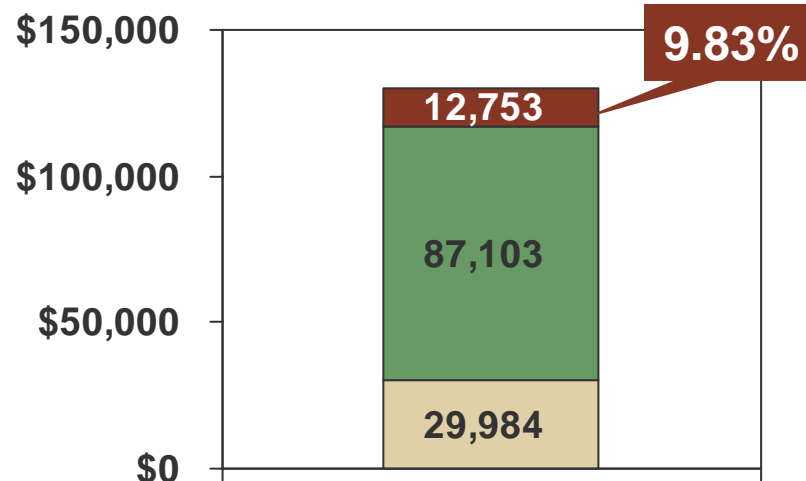


Total # of transactions: 2,442

■ Greater than \$25

■ Less than \$25

■ Online



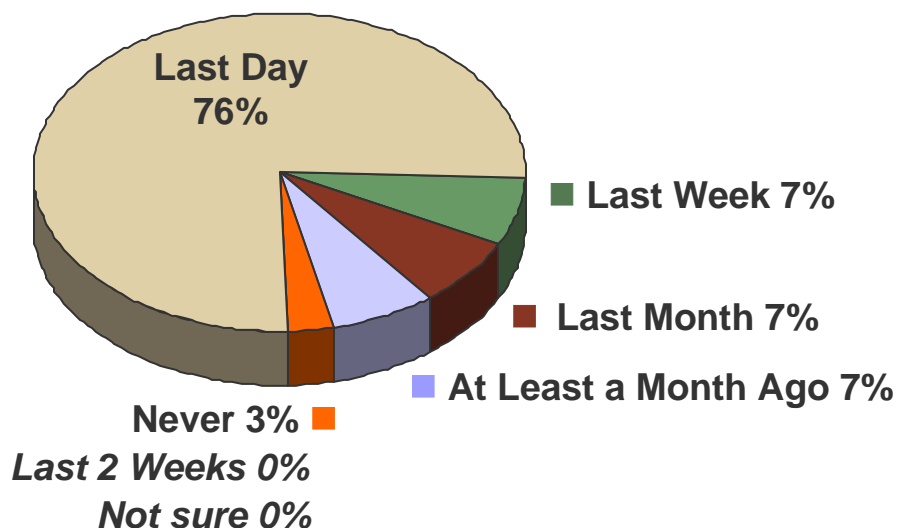
Total amount of transactions: \$129,750

Source: MPD Generation XY Survey

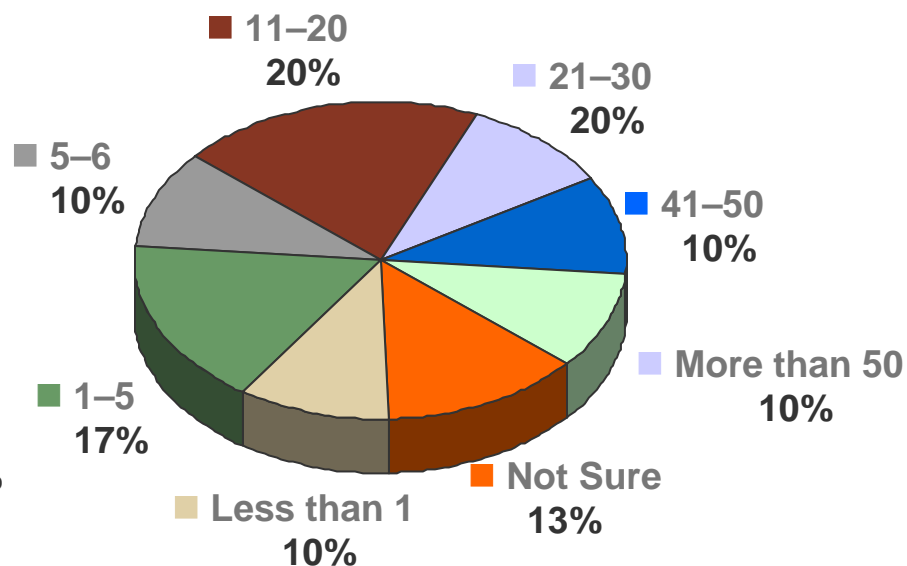
<\$25 transactions account for 45.55 of all transactions but less than 10% of all spend

More From The Real World

When was the last time you saw anyone using a PayPass/ contactless card?



How many people do you see using it every week on average, according to your best estimate?

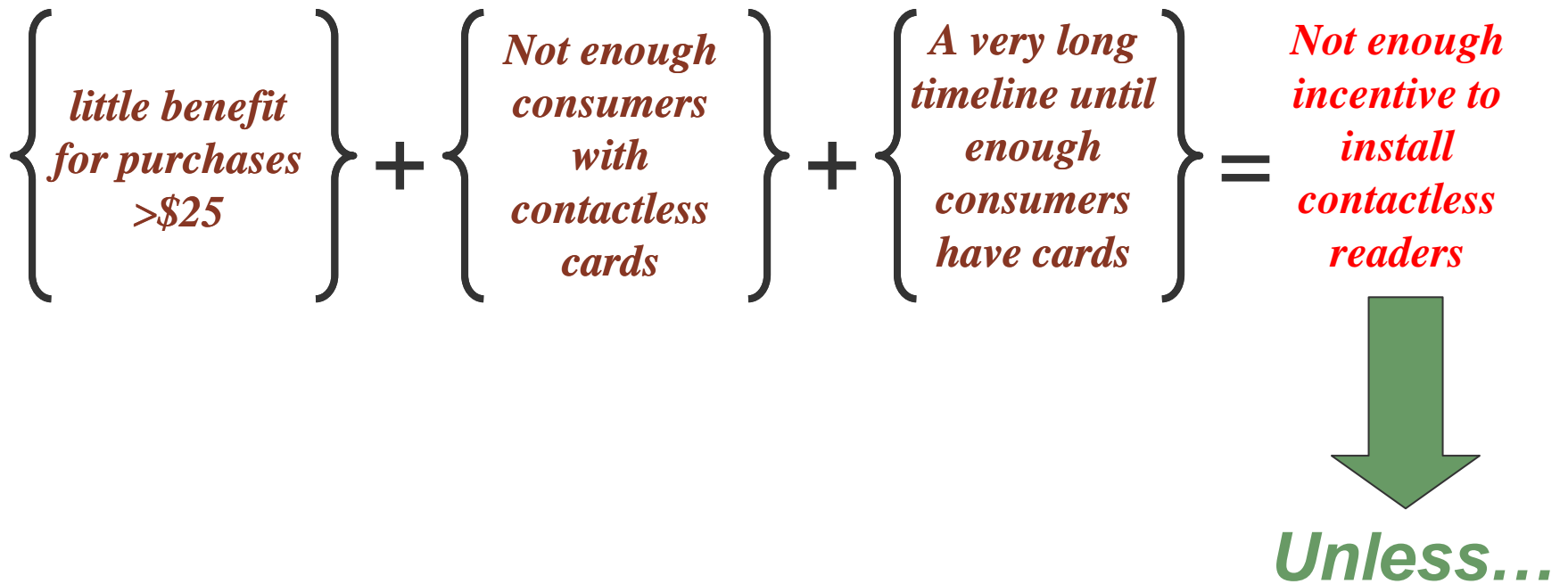


Source: MPD Phone survey of 30 Boston area CVS stores, Jan 17-19, 2007; CVS corporate website.

31-40 0%

Contactless accounts for less than .5% of all weekly customers in an average CVS store

Calculating The ROI For Merchants NOW



Igniting The Market

***There's a killer app that drives
consumer and merchant
adoption***

Killer App #1: Closed Loops

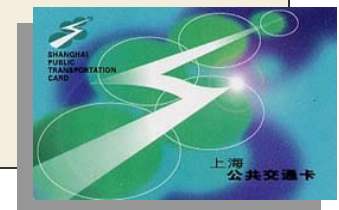
Octopus Cards

- 1997 joint venture of five major transport operators
- > 14 million cards in circulation
- Accepted at 379 retail locations
- **Generates 23.5% of its transactions from non-transit purchases**



Shanghai Public Transportation Card

- 1999 joint venture of major transport operators/ companies
- > 15 million cards in circulation
- Accepted for subway, taxi, ferry, high way toll, stadiums, car service, parking meters and garages, gas stations.
- **Compatible with public city transit systems in several cities nearby.**



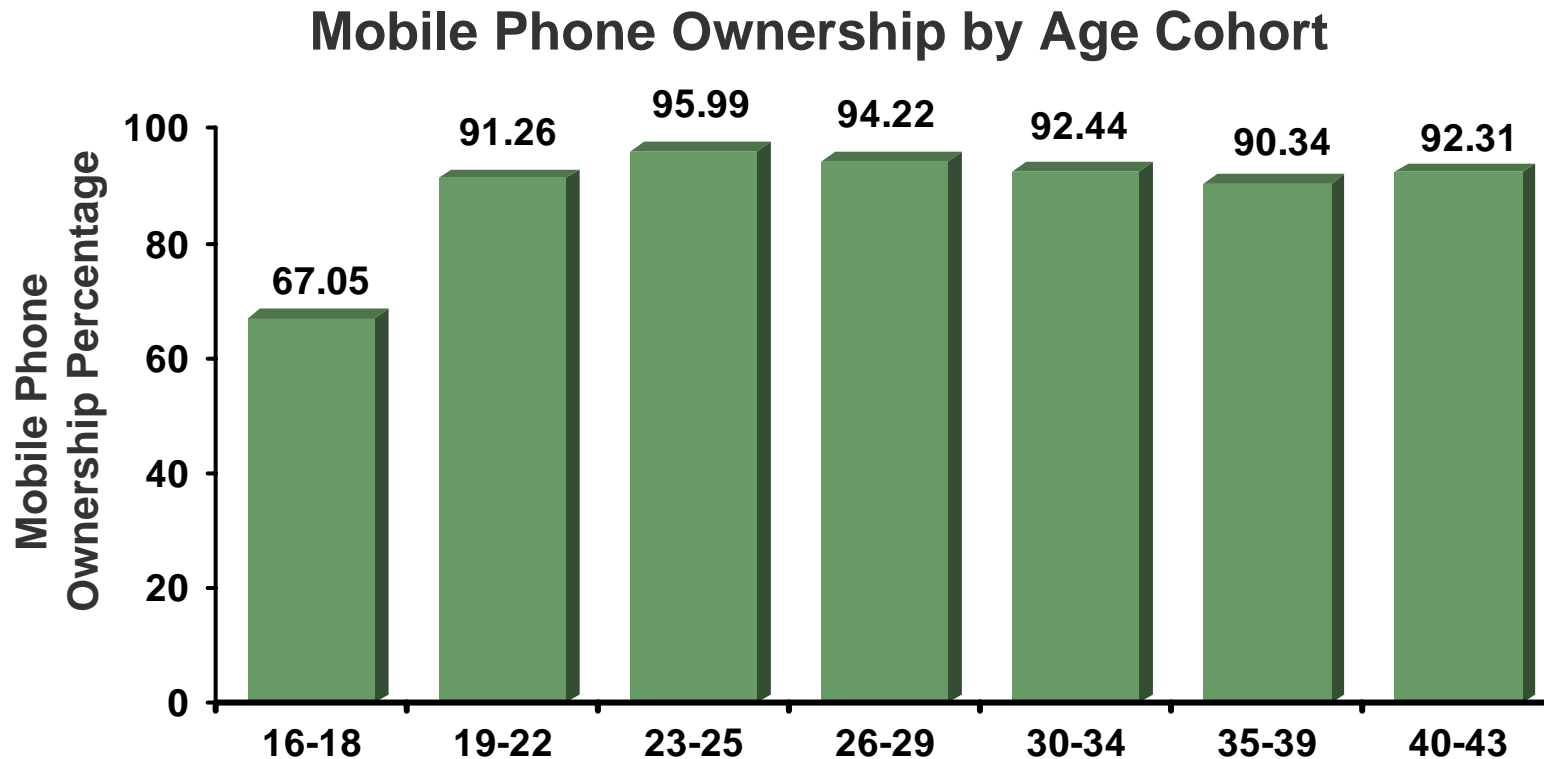
A Quick Comparison

| | Octopus | SpeedPass |
|--|--|---|
| <i>Target market</i> | Anyone using public transportation | Frequent Exxon Mobil users. |
| <i>User penetration</i> | High – 95% of the population possess the card. | Low - less than 2% penetration rate, |
| <i>Leverage to force contactless to users</i> | High – monopoly in transit systems | Low – lots of ways to pay |
| <i>Attractiveness to merchants</i> | Very attractive due to the high user penetration | Low – too few SpeedPass holders. And most SpeedPass holders also carry mag stripe credit/debit cards. |
| <i>Expansion into open systems</i> | Successfully expanded into non-transit payments | Unsuccessful trial in McDonald's. Now limited to Exxon Mobil stations. |

How does a closed loop expand? Acceptance is the key

Killer App #2: Mobile

Overall mobile phone penetration in the U.S.: 72.8%



The NTT DoCoMo Wallet Phone Case Study

- 1** High mobile phone penetration in Japan: 100 million subscribers, or 78% penetration rate.
- 2** Broad acceptance of advanced non-voice features of mobile phone: 83% of all mobile phone users, subscribe to mobile data services.
- 3** Proprietary Felica network (JV of NTT DoCoMo and Sony)
- 4** Ignited the market by offering customized solutions to targeted big stores, and putting phones into the hands of consumers.
- 5** About 15 million e-Wallet phones in use by end of 2006
- 6** More than 40,000 merchants locations.* And the number of readers is expected to more than double from 60,000 to 120,000 by April 2007.

*Note: there are about 44,000 convenience stores in Japan, according to NIKKEI.

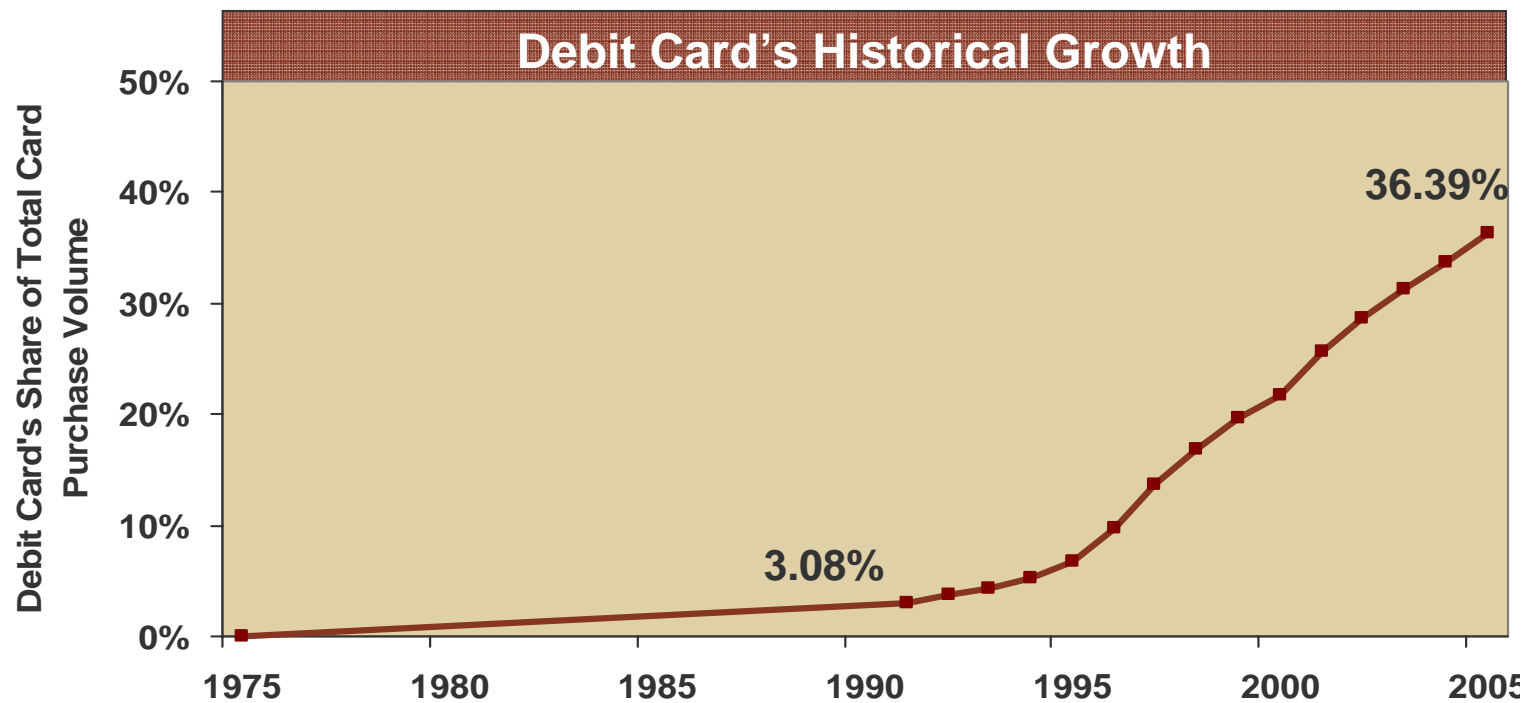
Source: NTT DoCoMo, bitWallet.

Killer App #3: Eliminate the \$25 Limit

***Broad use by consumers
(and acceptance by merchants) will
require eliminating the \$25 limit***

Is personal biometrics a solution to the \$25 ceiling?

Setting Expectations



Source: The Nilson Report

It took 16 years for debit cards to account for 3% of all card volume – plus an aggressive card distribution program

The Dumb Silent Challenger?

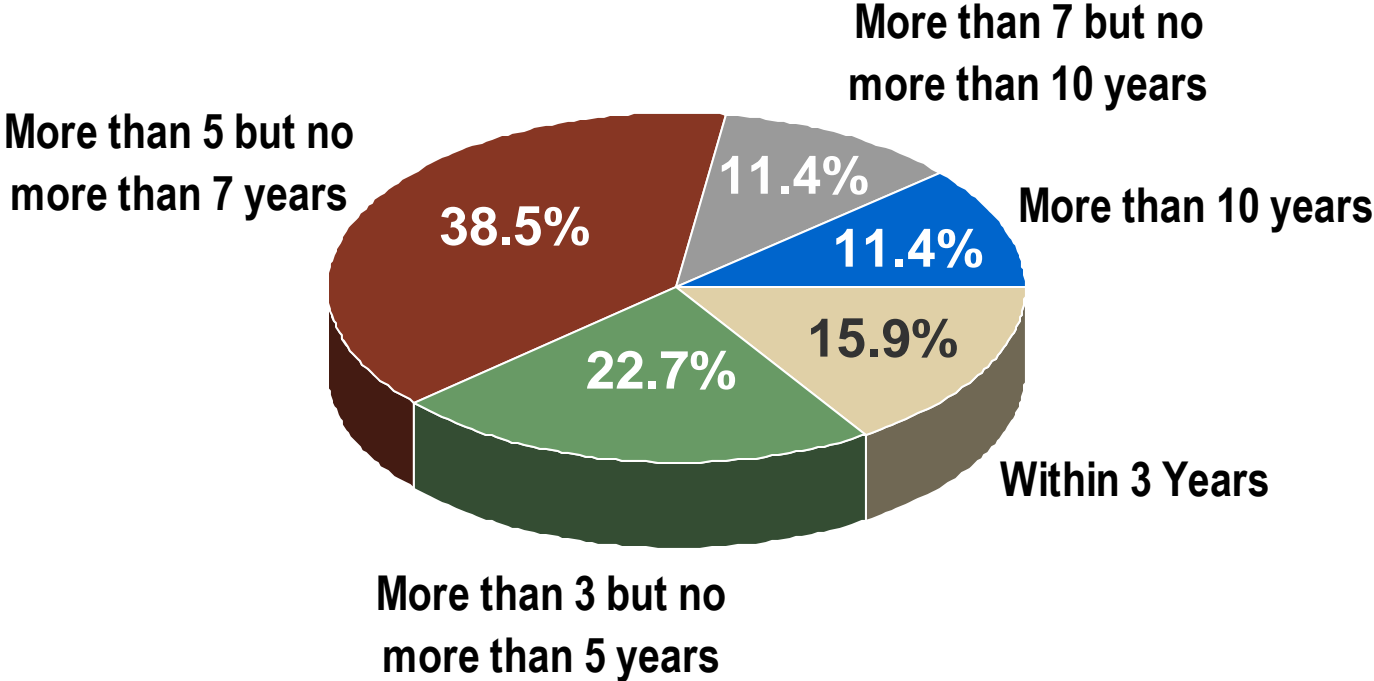


Bar codes are ubiquitous for both end users and merchants.

Contactless chips need to use their intelligence to be superior to otherwise “dumb” solutions

The Wisdom of the (Optimistic) Crowds

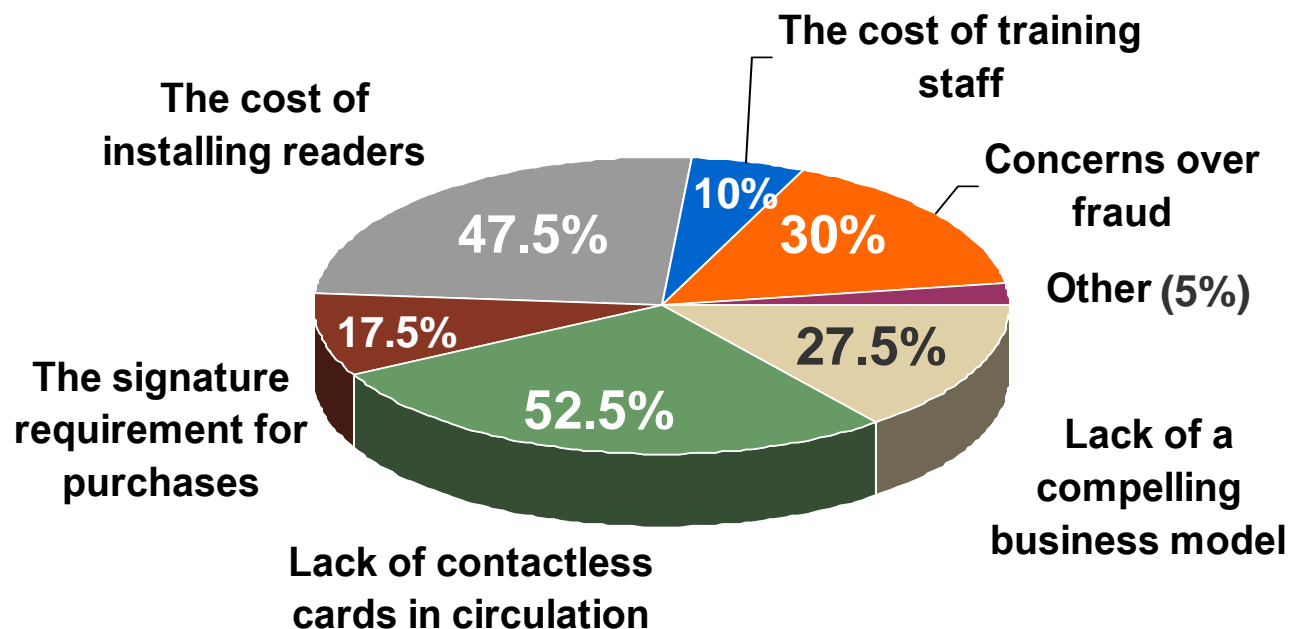
How long will it take before half of all card spend takes place at merchants that have contactless readers?



At least half of you think it will be between 5 and 10 years before contactless hits a critical point

Your View of the Obstacles

What are the TWO biggest factors that hinder adoption of contactless by merchants?



With lack of a compelling business model THE gating factor

Igniting the Market: Getting Both Sides On Board



Leverage the intelligence of chip-based cards

Create rich software ecosystems with apps that rely on chips (security issues....)



Establish a meaningful value proposition for end users.

Speed and convenience can only be part of the value delivered



Use closed loops to drive open acceptance

Popularize in closed loops before expanding into open loops

Thank you

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