

**MOBILE PAYMENTS WORLD**  
trends in mobile and contactless payments

# 2007 Mobile Financial Services Study

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*Survey Methodology, Analysis, and Key Findings*

February 2007



**Edgar, Dunn  
& Company**

*Management Consultants*

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# ***Overview of the 2007 Mobile Financial Services Study***

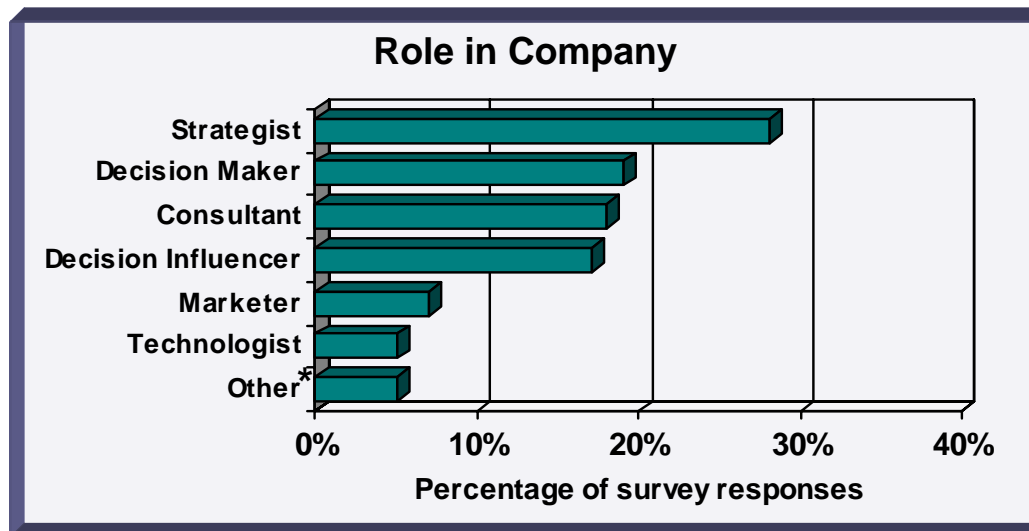
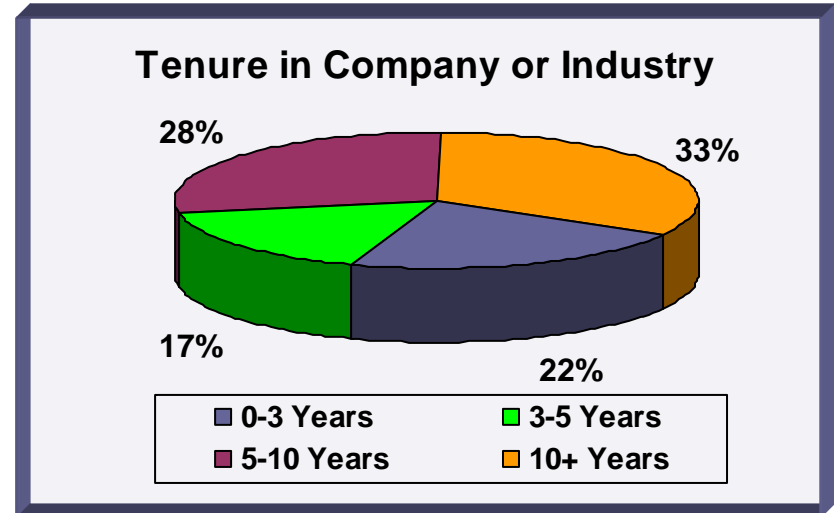
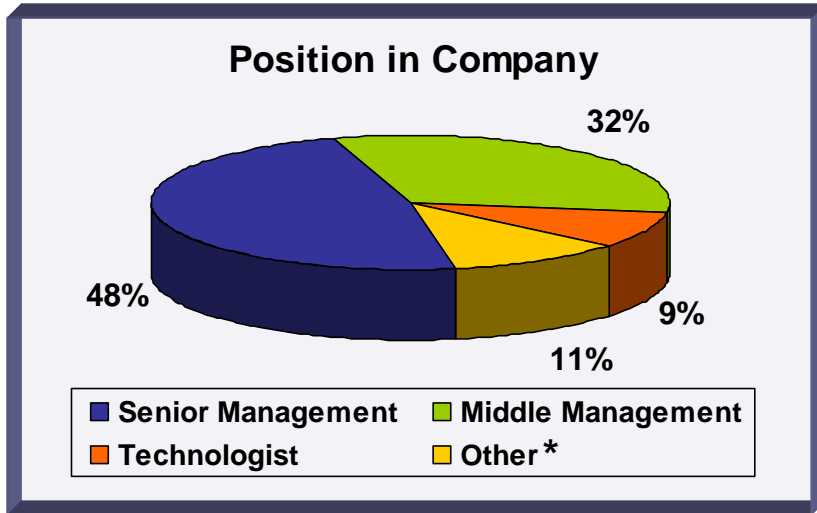
- **The 2007 Mobile Financial Services Study is a joint effort of Mobile Payments World magazine and Edgar, Dunn & Company, management consultants**
  - **An earlier joint survey was conducted in February 2006 focused on Mobile Payments only**
- **The objective of the study is to assess the collective vision for mobile financial services among thought leaders in mobile payments and financial services from around the world**
- **The study was implemented via an online survey questionnaire covering topics such as:**
  - **The adoption of mobile payments and banking**
  - **Drivers of and barriers to growth**
  - **The role of various players in the mobile payments value chain**
  - **Approaches for providing mobile financial services to the unbanked/underbanked**
- **The questionnaire was organized into three major sections, as follows:**
  - **Mobile Payments**
  - **Mobile Banking**
  - **Mobile Financial Services for the Unbanked/Underbanked**
- **This document describes the methodology and key findings from the study**

# Survey Methodology

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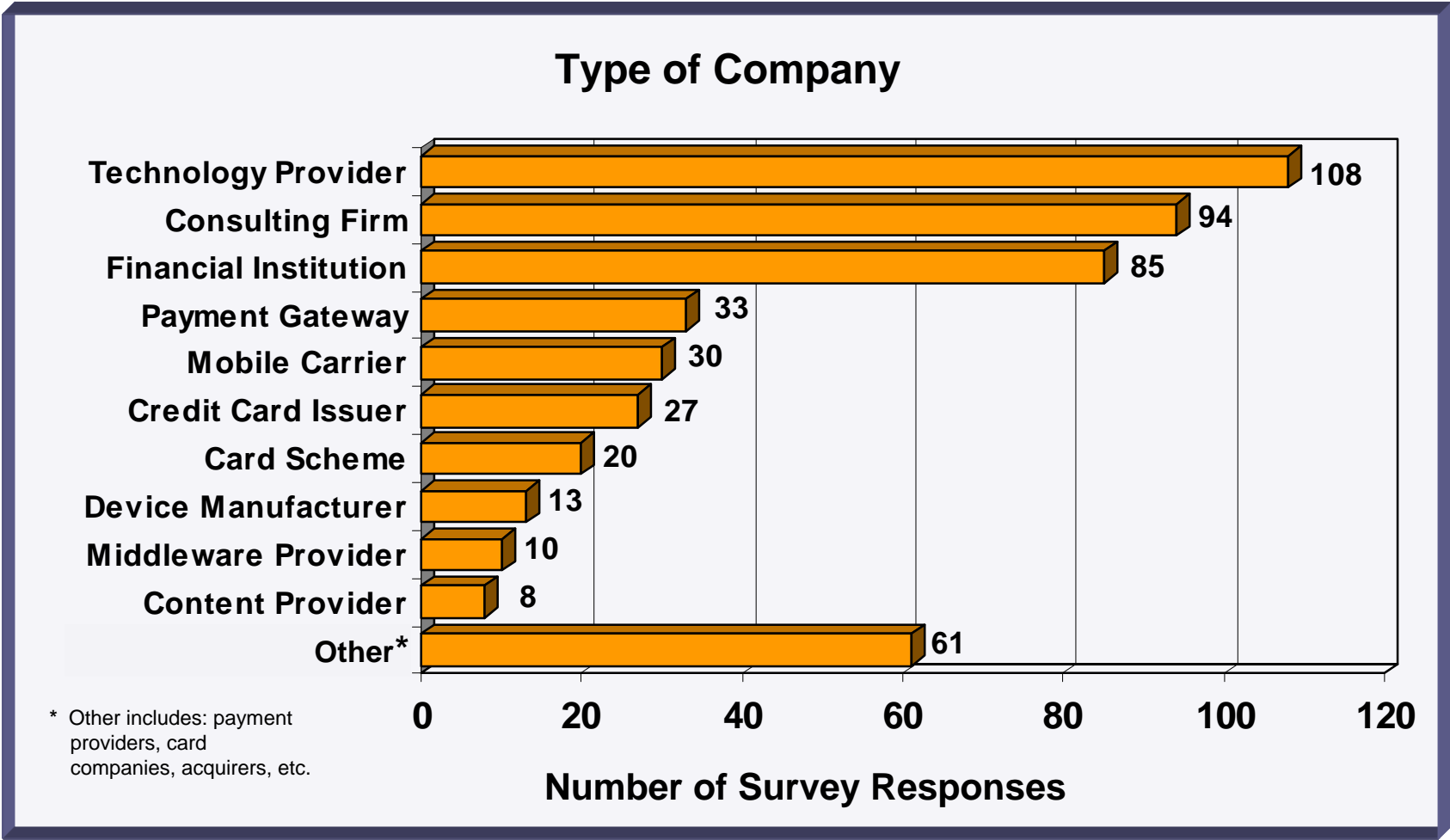
- The survey was conducted between November 27 and December 22, 2006
- Individuals were invited to participate in the survey via email, using two distribution lists:
  - Subscribers to Mobile Payments World magazine
  - Subscribers to Edgar, Dunn & Company's Insight e-Letter
- Recipients of the e-mail were also asked to forward the survey to colleagues who might have expertise and interest in the topic of mobile payments
- A total of 489 responses were received, an approximate 10% response rate and a 40% increase in the number of respondents over the 2006 survey

# Survey participants are primarily experienced senior or middle managers with the power to make or influence strategic decisions



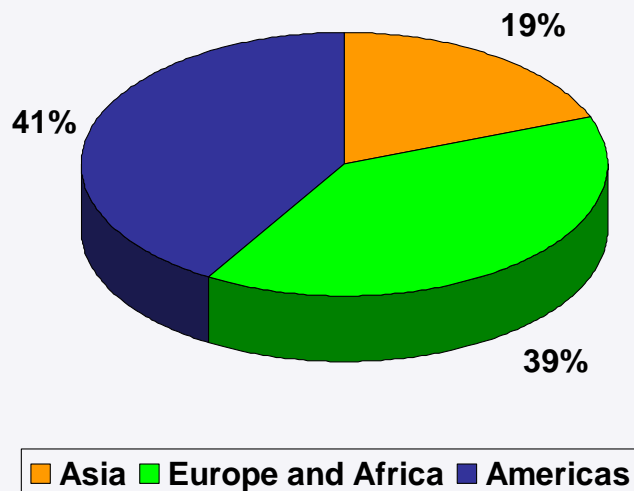
\* Other includes: researchers, product managers, business developers, etc.

# Technology providers, consultants, and financial institutions have the best representation among survey respondents

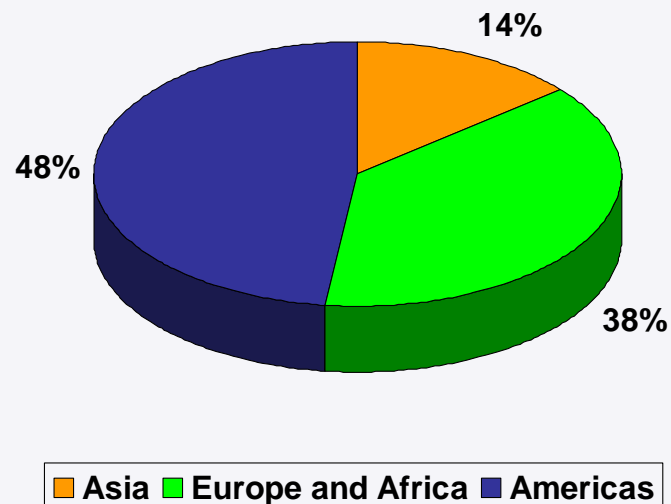


# ***Survey participants represented locations throughout the world; the highest number of respondents are from Western Europe and North America***

### Office Location by World Region



### HQ Location by World Region



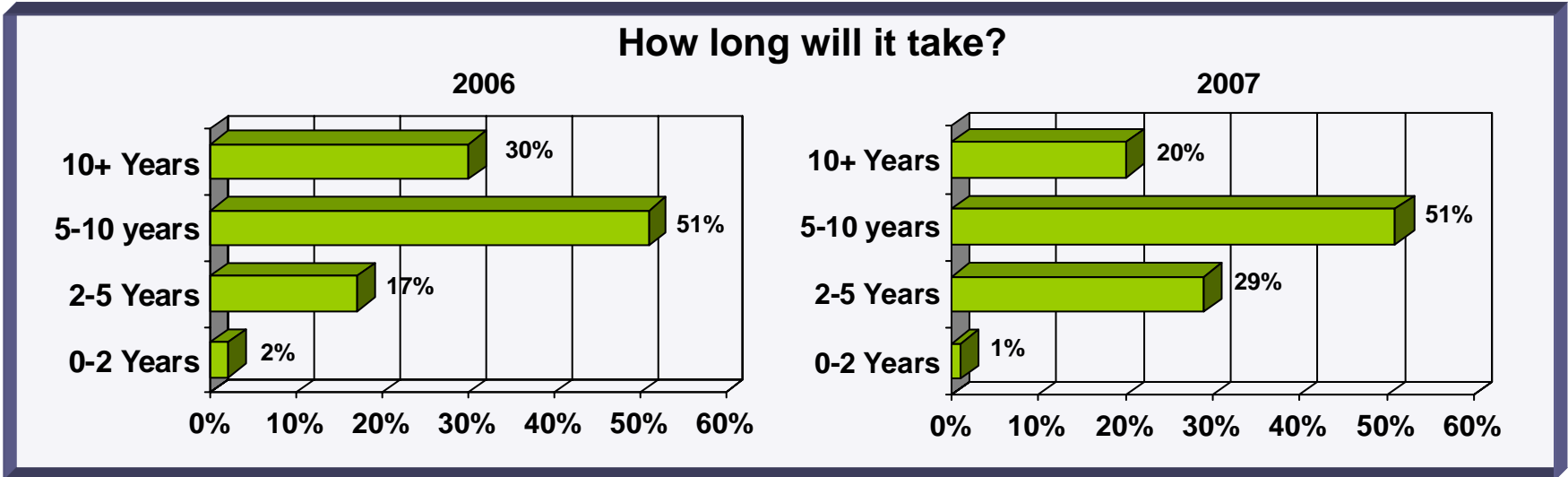
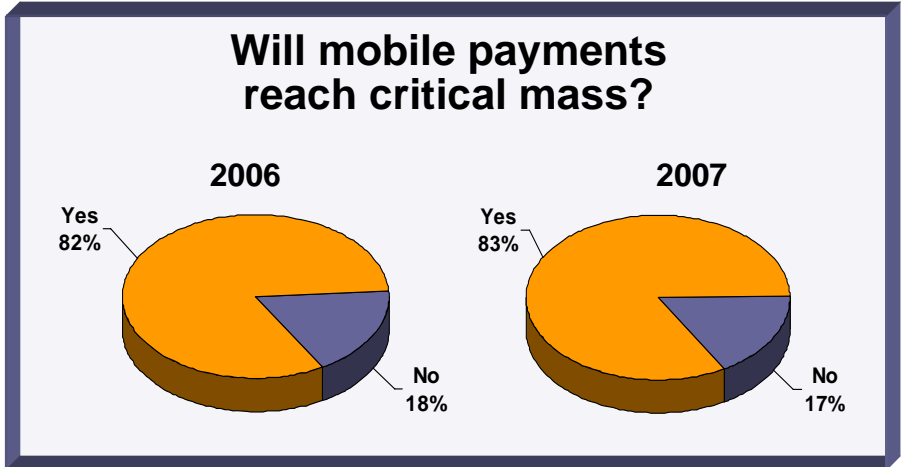
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# Key Finding 1 – Mobile Payments will be a reality in the medium term, sooner than projected in the previous survey

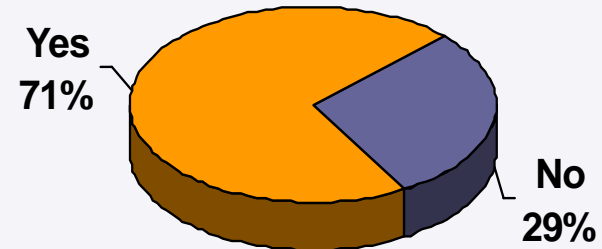
- A large majority of payments professionals continues to be optimistic about the future of mobile payments
- Respondents in this survey, however, believe that mobile payments will achieve critical mass sooner than did respondents in the previous survey, with 29% of 2007 respondents believing that it could happen within 2-5 years – nearly double the percentage of respondents from the last survey



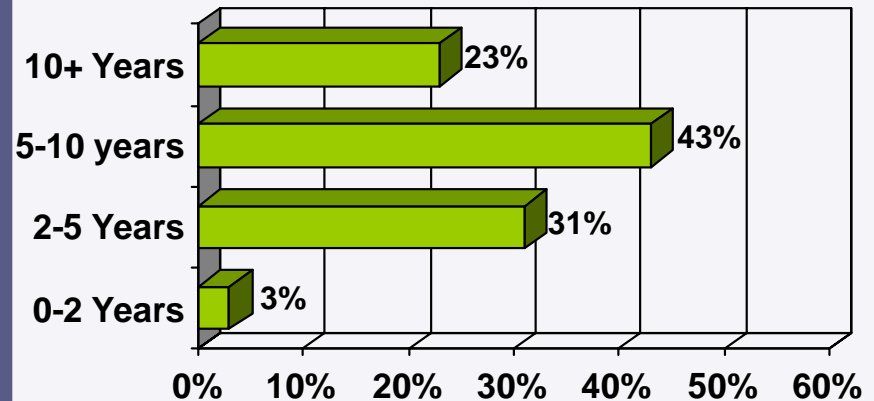
## **Key Finding 2 – Mobile Banking will be a reality in the medium term**

- Payment professionals are also optimistic about the future for mobile banking
- As mobile banking is already happening in the market, it is surprising that the optimistic percentage is lower than for mobile payments (71% vs. 83%, respectively)
- However, of those who do believe mobile banking will reach critical mass, one third believe it will happen within the next 5 years

### Will mobile banking reach critical mass?

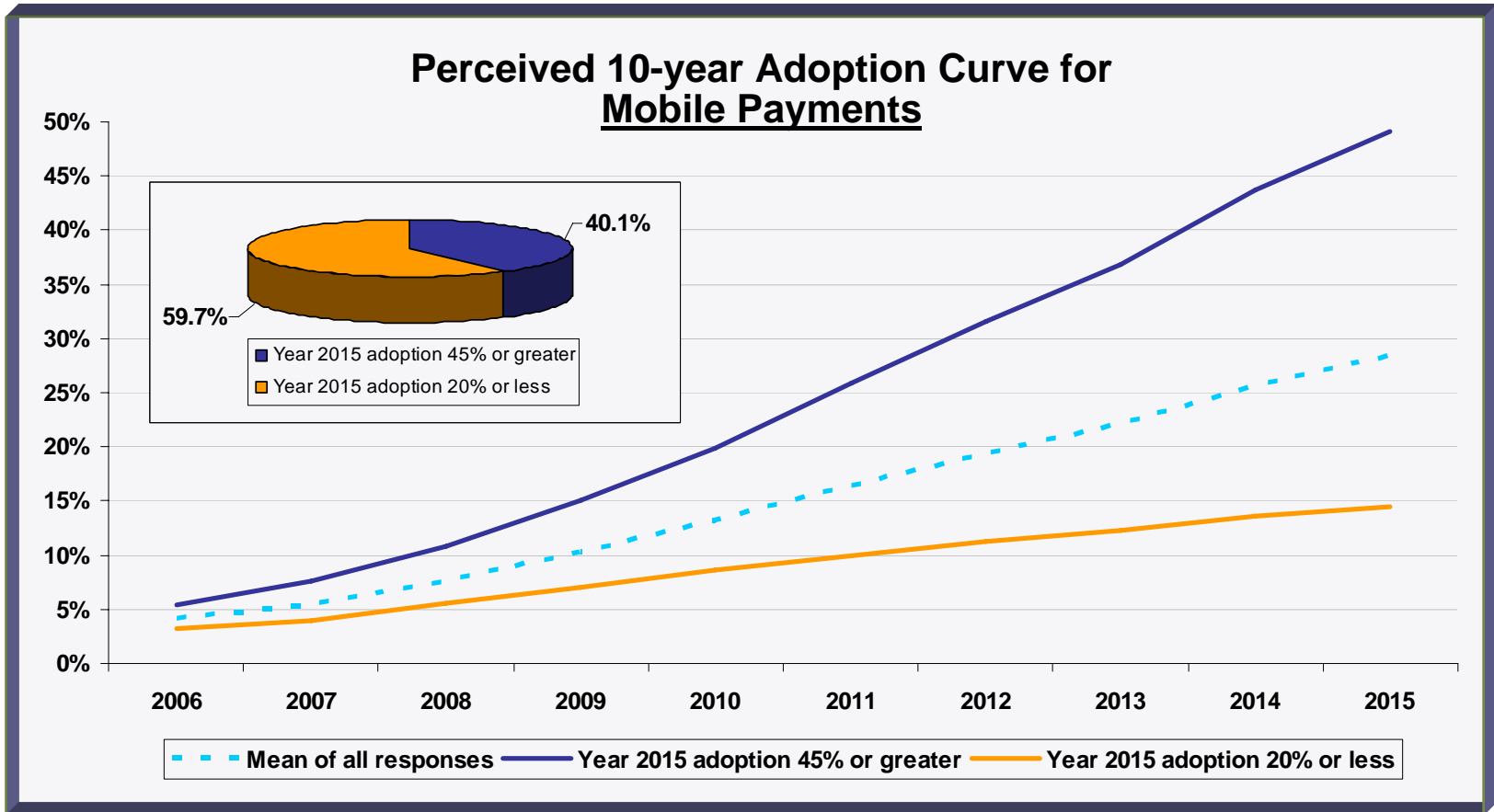


### How long will it take?

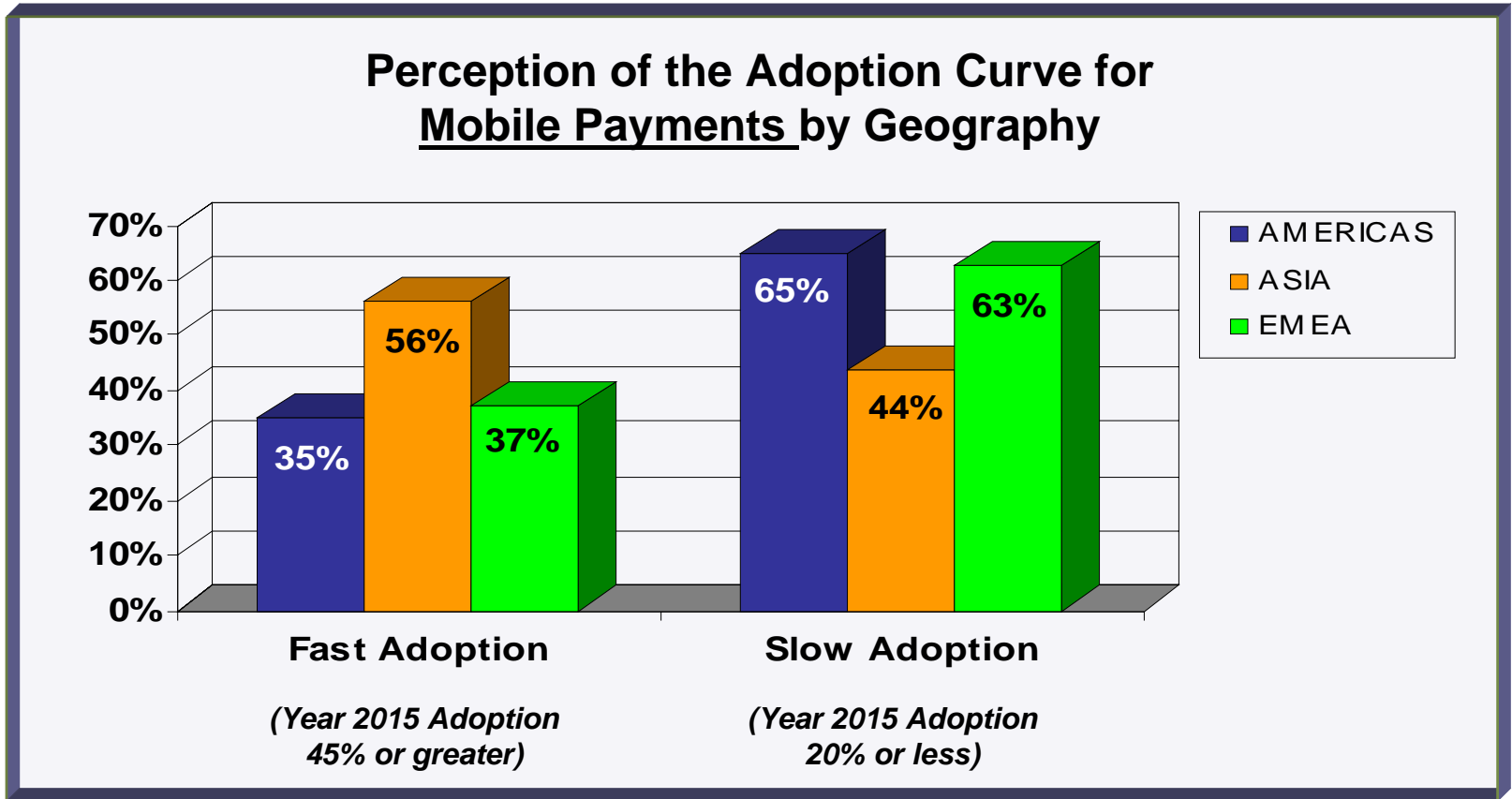


# ***Adoption - Views on the adoption of Mobile Payments continue to be bi-modal and at the same levels as the previous study***

**Question: Please tell us your estimate of the cumulative percent penetration of Mobile Payments usage globally over the next 10 years among consumers who carry mobile devices by selecting from the ranges provided.**

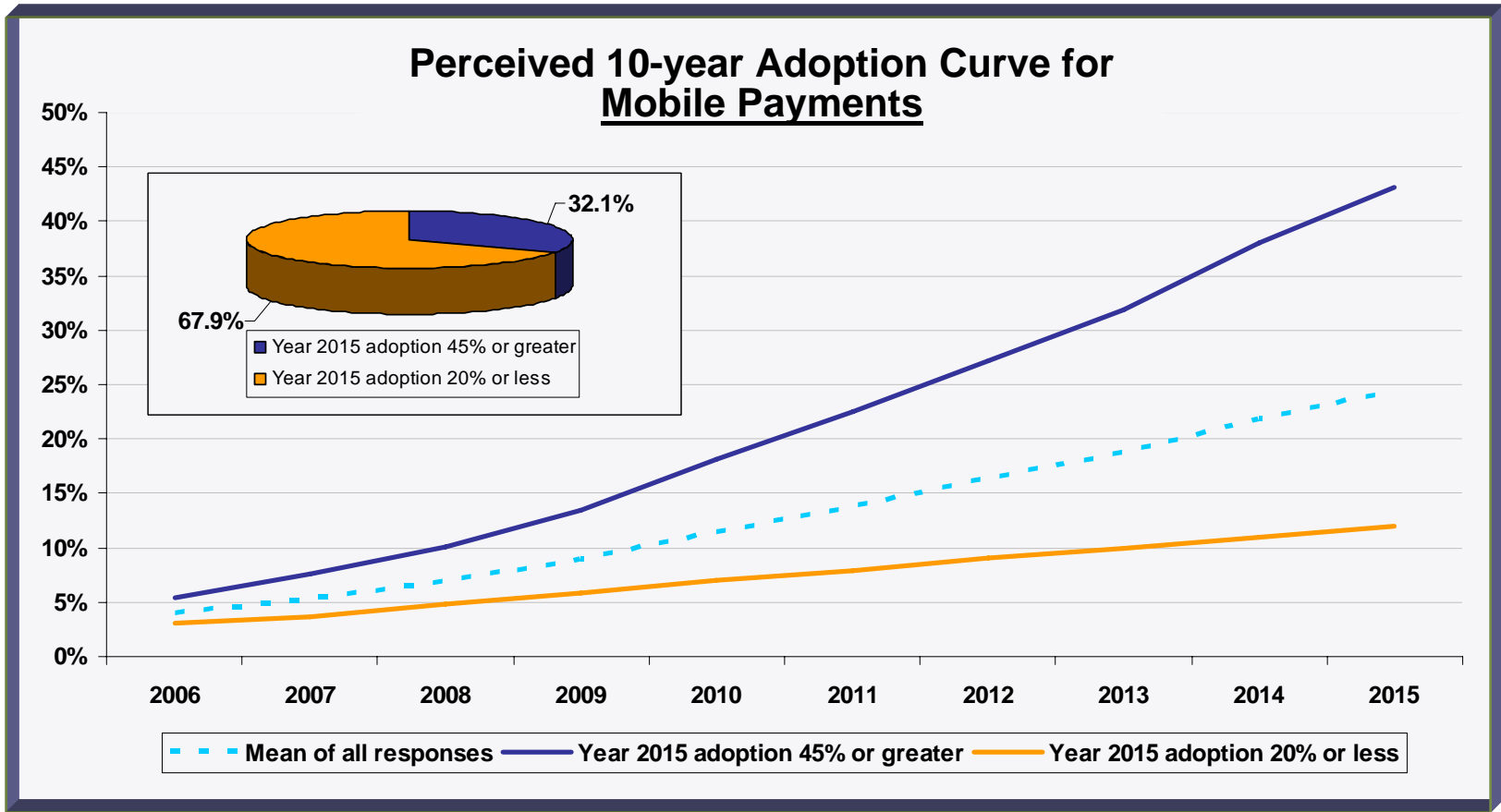


**Respondents from Asia are most optimistic about fast adoption of Mobile Payments, while respondents from the Americas and EMEA are a bit more cautious in their views**



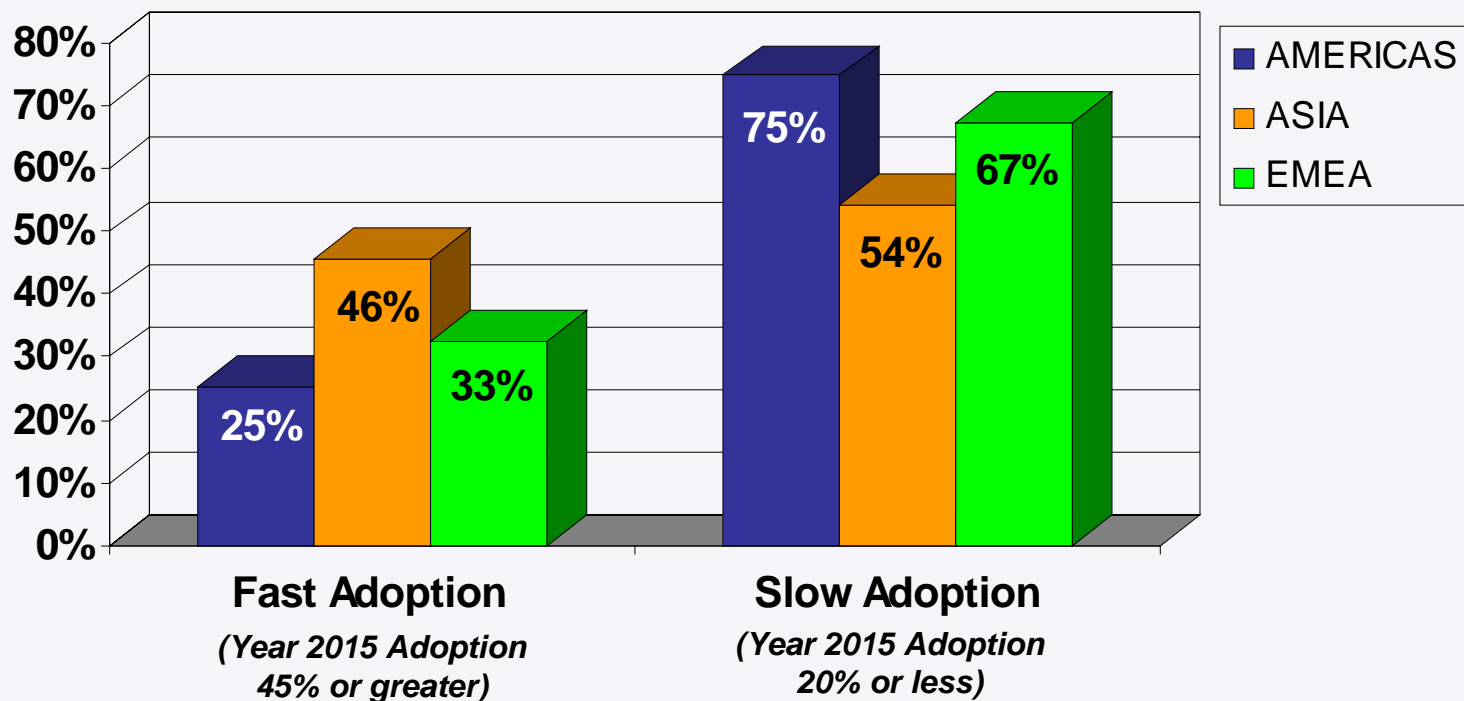
# **Adoption - Views on the adoption of Mobile Banking are also bi-modal but surprisingly are generally less optimistic than for Mobile Payments**

**Question: Please tell us your estimate of the cumulative percent penetration of Mobile Banking usage globally over the next 10 years among consumers who carry mobile devices by selecting from the ranges provided.**



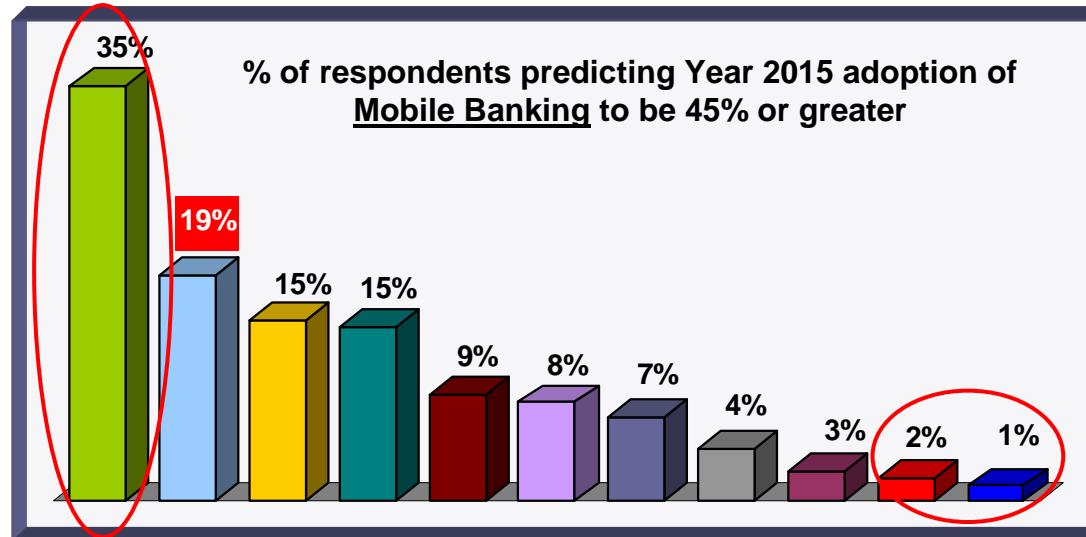
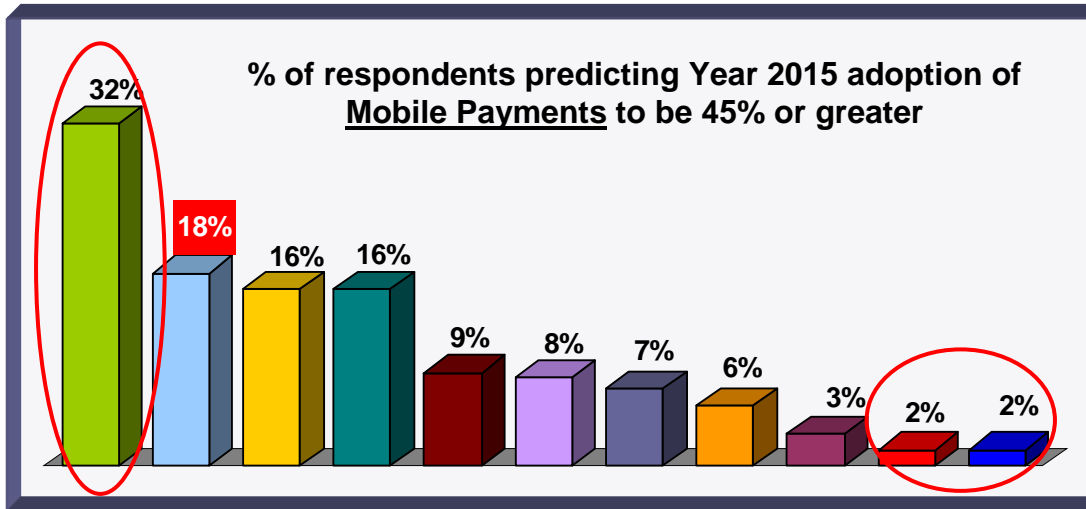
***As with Mobile Payments, respondents from Asia are more optimistic about fast adoption of Mobile Banking, while their counterparts in the Americas are more pessimistic***

### **Perception of the Adoption Curve for Mobile Banking by Geography**



# **Adoption – Technology providers are the most optimistic regarding the adoption rate of Mobile Payments and Mobile Banking, while content and middleware providers expect slower adoption**

- Compared to last survey's view on mobile payments, financial institutions have become more optimistic and payment gateways more pessimistic



## **Key Finding 3 – The success of Mobile Financial Services for the Unbanked/Underbanked will depend on consumer education and a sound business model**

- Adequate consumer education on how to access, use, and trust financial services in conjunction with mobile technology will be critical to the adoption of this method of financial servicing, as well as for more people to access the financial resources they need
- Direct ways of transferring funds without having to go through a middleman (e.g., remittance institutions like Western Union), which help to cut costs and increase convenience, are the most attractive methods of sending payments to the unbanked/underbanked
  - Hence peer-to-peer transfers are rated as a top option for mobile financial services
  - This is particularly the case in regions with high mobile penetration such as Asia
- Mobile financial services are likely to fail if key stakeholders such as financial institutions and mobile carriers do not structure a sound business model to operate effectively

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## ***Executive Summary – Mobile Payments***

- 1. Mobile Payments growth will be driven primarily by the penetration of contactless technology such as Near Field Communication (NFC) chip as well as contactless POS terminals**
- 2. Responses to the anticipated rate of adoption are bi-modal, with 60% expecting a gradual increase in adoption and 40% predicting more rapid growth rate**
- 3. As in the previous survey, Asia is again the leading geography in mobile payments, with Western Europe and North America a distant second and third**
- 4. The key to greater usage of Mobile Payments resides in consumer and merchant adoption, as well as in the availability of a common mobile payment platform and a viable business model**
- 6. No specific “killer app” was identified for Mobile Payments**
  - However, respondents expect a killer app to come from areas related to transportation, micropayments, mobile wallet and advances in technology**

## ***Executive Summary – Mobile Banking***

- 1. Payments professionals are split into two camps regarding the 10-year adoption curve for Mobile Banking, with about two-thirds expecting a gradual increase in adoption and about one-third predicting more rapid growth**
- 2. Asia is viewed as the leading geography for Mobile Banking, while Western Europe and North America are a distant second and third**
- 3. Balance inquiries, bill payment, and financial service alerts will be strong contributors of the growth of Mobile Banking in the next three years**

# ***Executive Summary – Mobile Financial Services for the Unbanked/Underbanked***

- 1. Peer-to-Peer (P2P) payment transfers are seen as the most popular Mobile Financial Service for the Unbanked/Underbanked, particularly for those in Asia and EMEA**
- 2. The most significant barrier to the success of Mobile Financial Services for the Unbanked/Underbanked is not cell phone coverage or cost of mobile phones, but rather low levels of consumer education on using mobile to access financial services and resources**
- 3. Having an unclear business model that fails to manage process flow, fee structures and interoperability will also hinder the success of Mobile Financial Services to the Unbanked/Underbanked**

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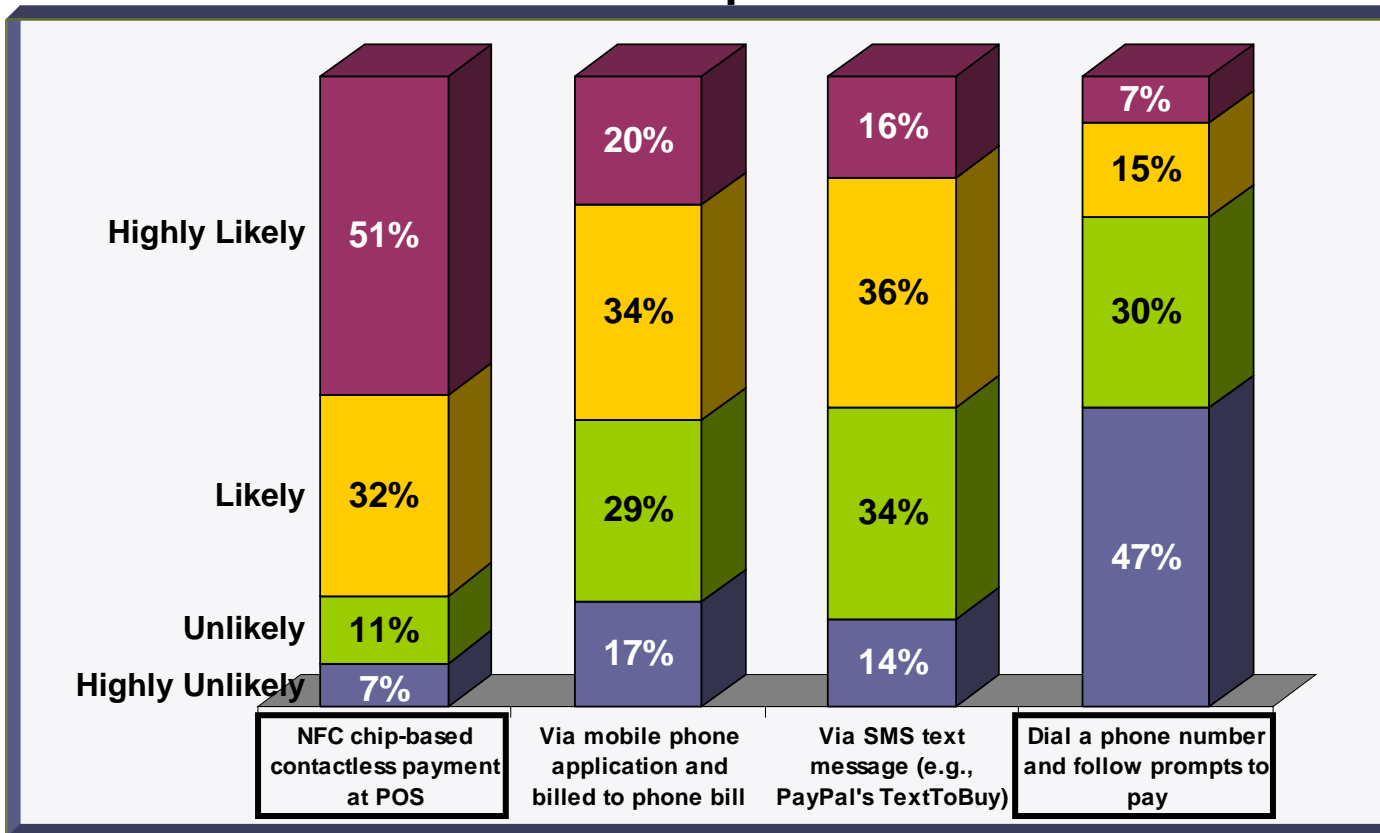
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# Drivers for Success– NFC chip-based contactless payment at POS is viewed as the approach most likely to succeed in the mobile payment space

Question: Please rate each of the following approaches on their likelihood of success

**% of Responses**



# **Alternative Approaches – Additional approaches likely to reach critical mass include biometrics, Bluetooth technology and mobile barcodes**

**Question: Do you see any other approaches to Mobile Payments as likely to reach critical mass?**

## **Top 3 Responses**

**Biometrics**

**Fingerprinting**

**Bluetooth  
Technology**

**Bluetooth-enhanced mobile application**

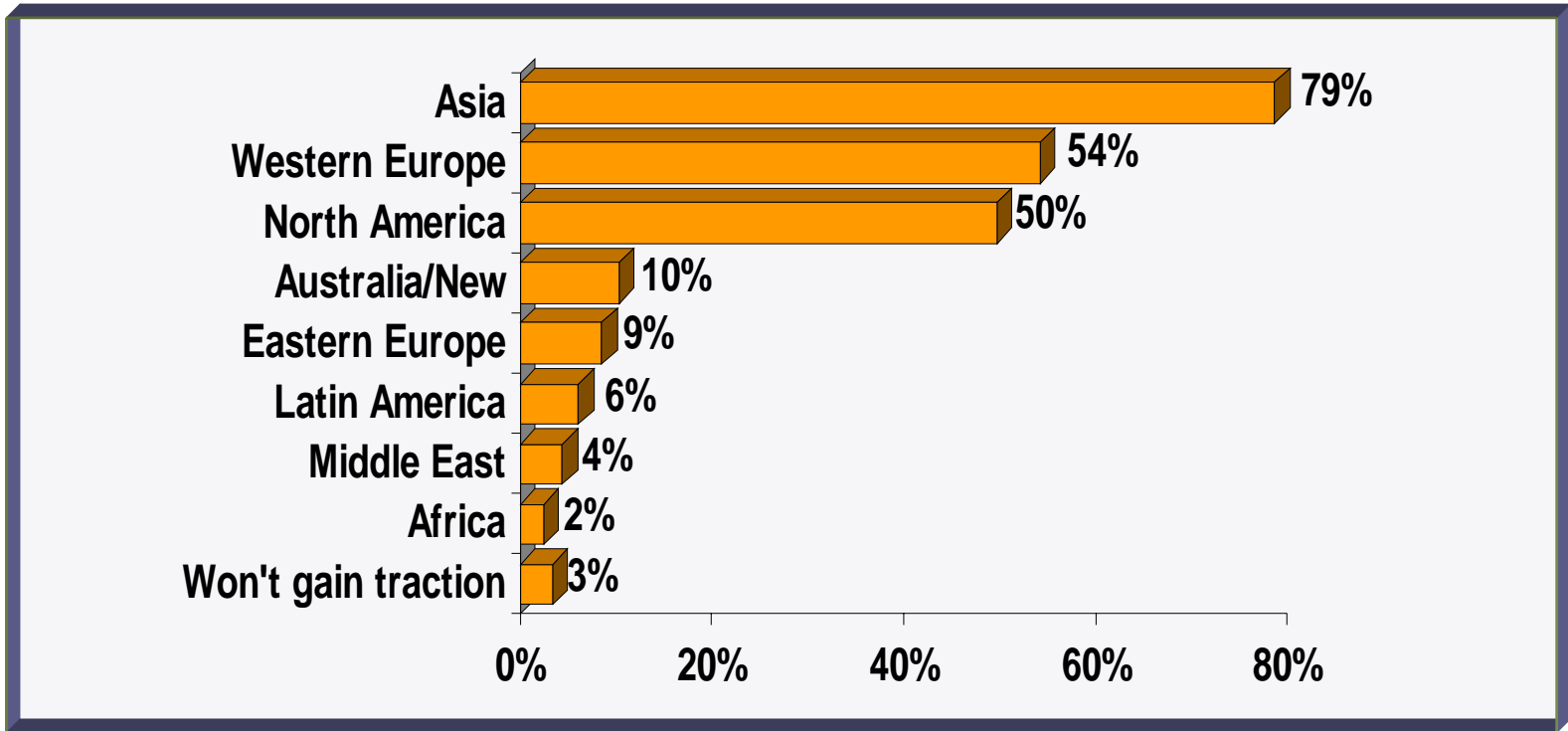
**Mobile  
Barcode**

**Two-dimensional barcode sent via SMS to mobile and used to scan at a POS**

# Geographic Adoption of NFC – NFC will most likely gain traction in Asia first, followed by Western Europe and North America

Question: Where is NFC most likely to gain traction first?  
(choose up to 3)

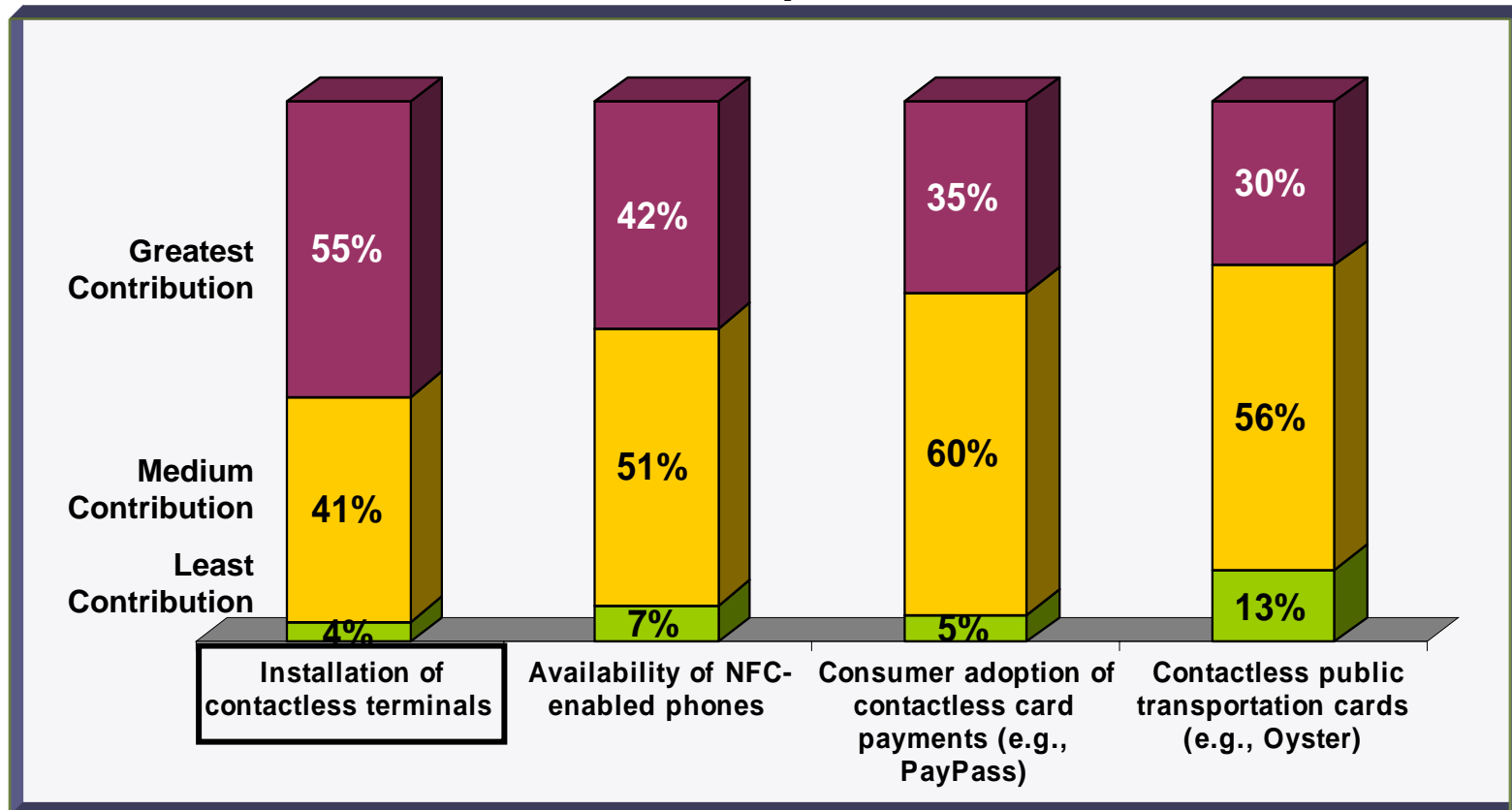
% of Counts in Each Category



***Drivers – Installation of contactless terminals was viewed as the strongest driver of NFC adoption***

Question: Please rate the following drivers based on their expected contribution to adoption of NFC

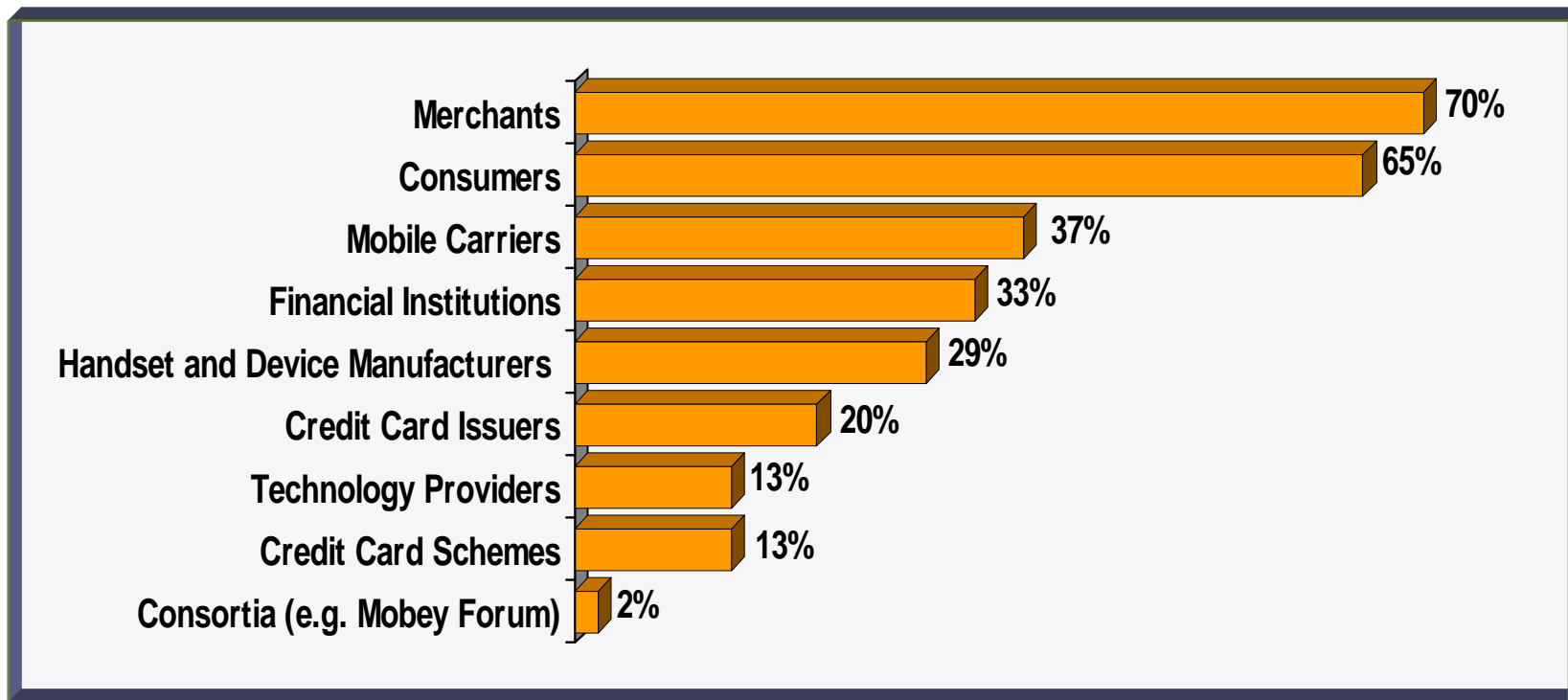
**% of Responses**



**Key Participants - Merchant adoption will drive acceptance of mobile payments, closely followed by consumer adoption. The classic “chicken and egg” problem is apparent**

Question: Which participants in the Mobile Payments value chain will be the most critical to the achievement of critical mass? (choose up to 3)

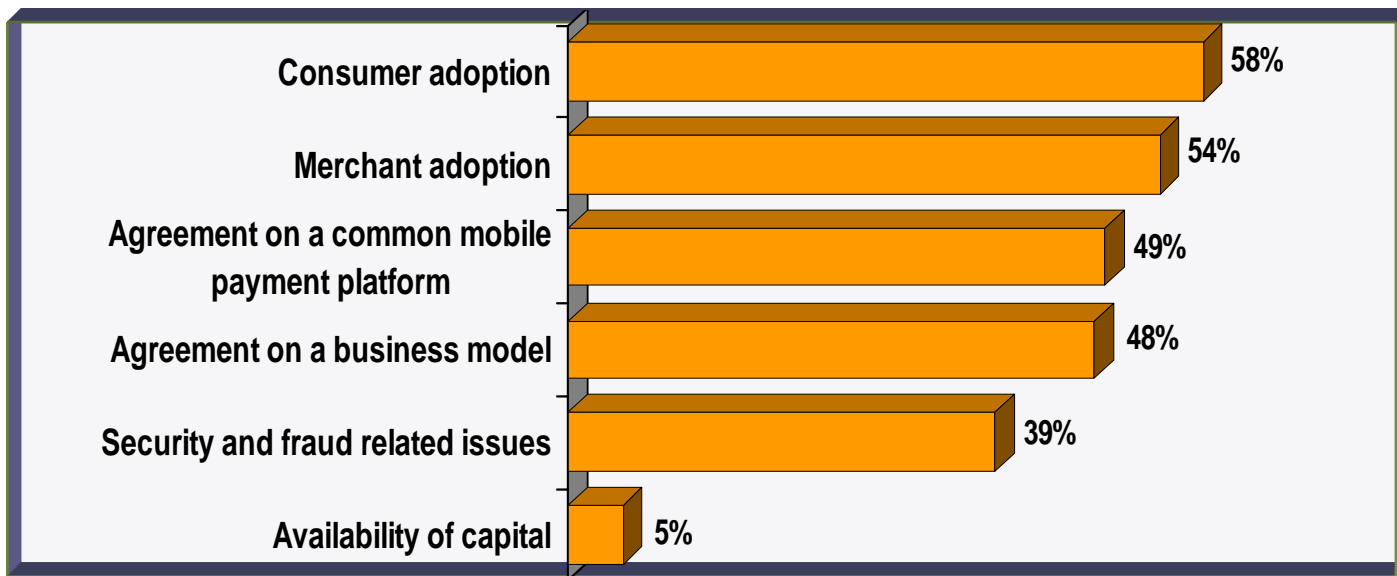
**% of Counts in Each Category**



# **Barriers to Adoption – Respondents agree that there are a number of critical barriers to adoption, with consumer and merchant acceptance seen as the most significant**

**Question: Which of the following do you see to be the most significant barrier to adoption over the next 3 years? (Choose 3)**

**% of Responses**



**Key Learning:** Agreement on a common mobile payment platform was the top barrier in the previous survey; this item may have been deemed less critical in this survey because the industry is taking steps to establish a common platform

# **“Killer App” – Responses cover a broad range of topics; most prevalent were transportation, micropayments, retail purchases, mobile wallet, and contactless payments (NFC)**

Question: What do you think is the “killer app” for Mobile Payments?

Respondents describe “killer apps” for Mobile Payments in the following categories (listed in the order of their prevalence among the responses):

1. *Transportation*
2. *Micropayments (cash replacement)*
3. *Retail Purchases (fast food, vending, newspaper)*
4. *Mobile Wallet*
5. *Contactless Payments / Near-Field Communications*
6. *Rewards and Loyalty Programs Associated with Mobile Payment and Banking*
7. *Mobile Banking (P2P fund transfers, bill payment)*
8. *Technological Advances (Usability, security, speed, biometric authentication)*

## ***Other responses include the following:***

***“Similar to mobile wallets in Japan, there are many apps that can be 'killer' for different users i.e. ticketing, stored value, credit, loyalty. However, for all above uses, security will be a major concern, and biometrics will likely be the chosen solution as was the case with DoCoMo mobile wallet phones.”***

*– Technology provider, Americas*

***“Integrated services - one stop for signing on for banking, loyalty programs, load chip up with cash etc.”***

*– Acquirer, Americas*

***“Widespread adoption of mobile ticketing and road payments in the transport sector.” - Mobile Banking, EMEA***

***“Ability to route and make payments from various accounts using a mobile device.”***

*– Technology provider, Americas*

***“Convenience - clear offerings from service providers in deployment.”***

*– Financial Institution, Asia*

***“Being able to pay under \$20 [bills] (restaurant, gas station, park meter, public transportation, theater, newspaper, beer, etc.)”***

*– Middleware provider, Americas*

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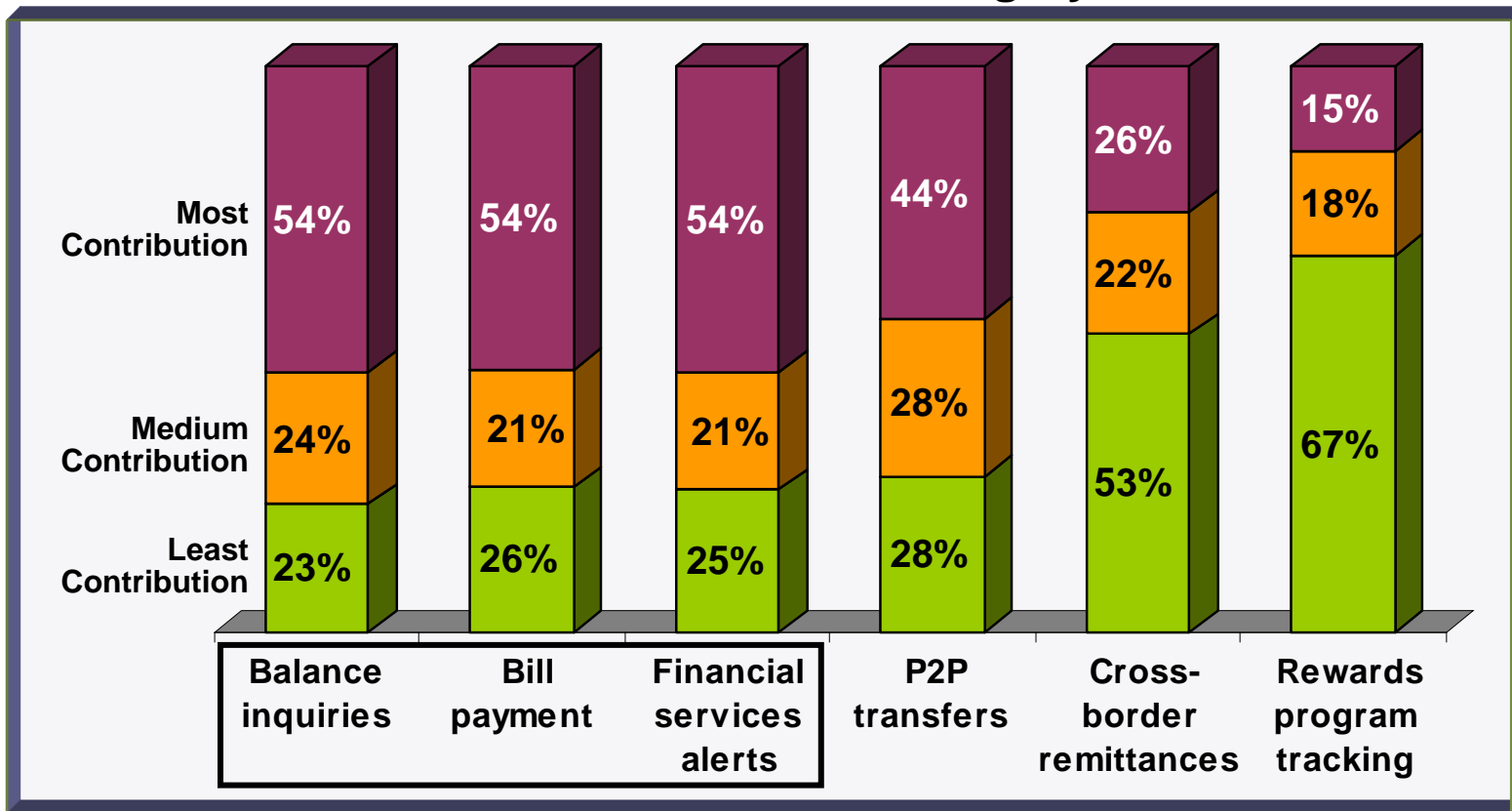
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# Services – Balance inquiries, bill payment and financial services alerts are viewed as the strongest contributors to Mobile Banking

Question: Which of the following services do you believe will be the strongest contributor to the growth of mobile banking in the next 3 years (rate 1-5)

**% of Counts in Each Category**



# **Contribution to Growth – Stock trading/brokerage, micropayment technology and online banking are seen as strong contributors to Mobile Banking growth**

Question: What other services are emerging that could have a significant impact on the growth of Mobile Banking?

Respondents describe additional services for Mobile Banking in the following categories (listed in the order of prevalence):

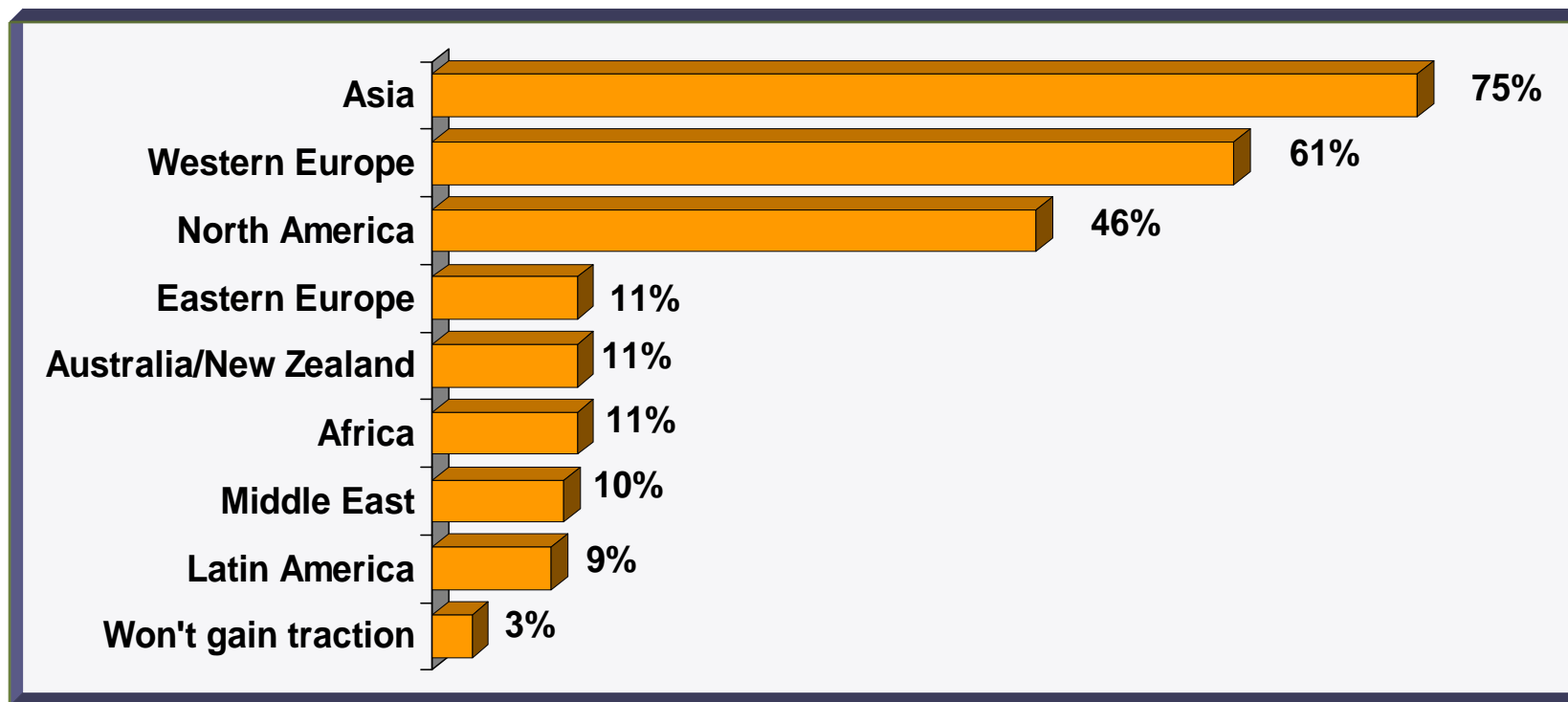
## **Top 5 Responses**

- ***Stock trading and brokerage***
- ***Micropayment enhanced technology***
- ***Bank account management***
- ***Loan application***
- ***Authentication method***

## Geographic Adoption - Asia will see the most rapid growth of Mobile Banking over the next three years

Question: Where do you expect the most rapid adoption of Mobile Banking over the next 3 years? (Choose up to 3)

### % of Count in Each Category



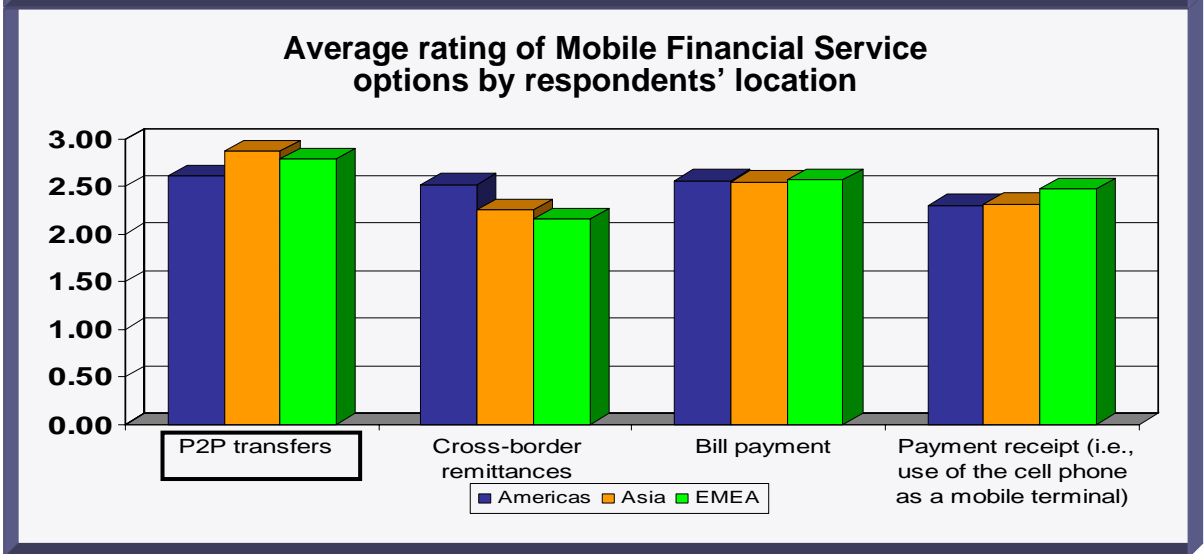
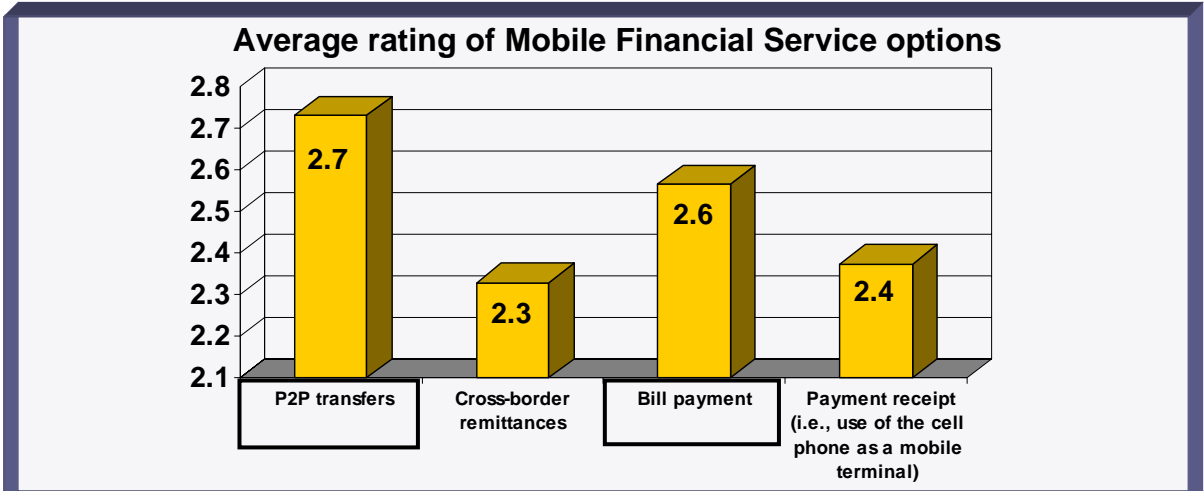
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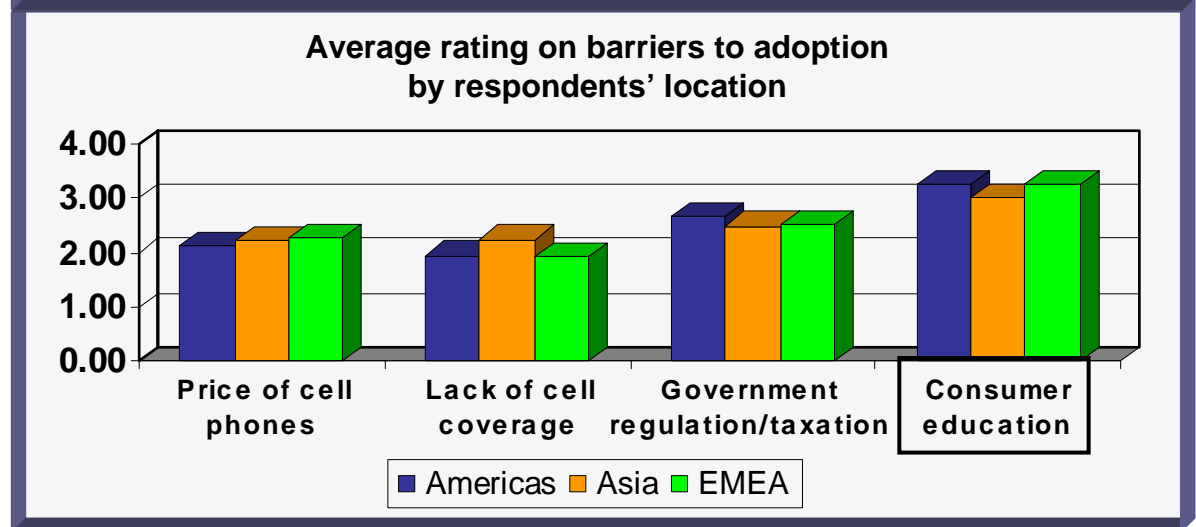
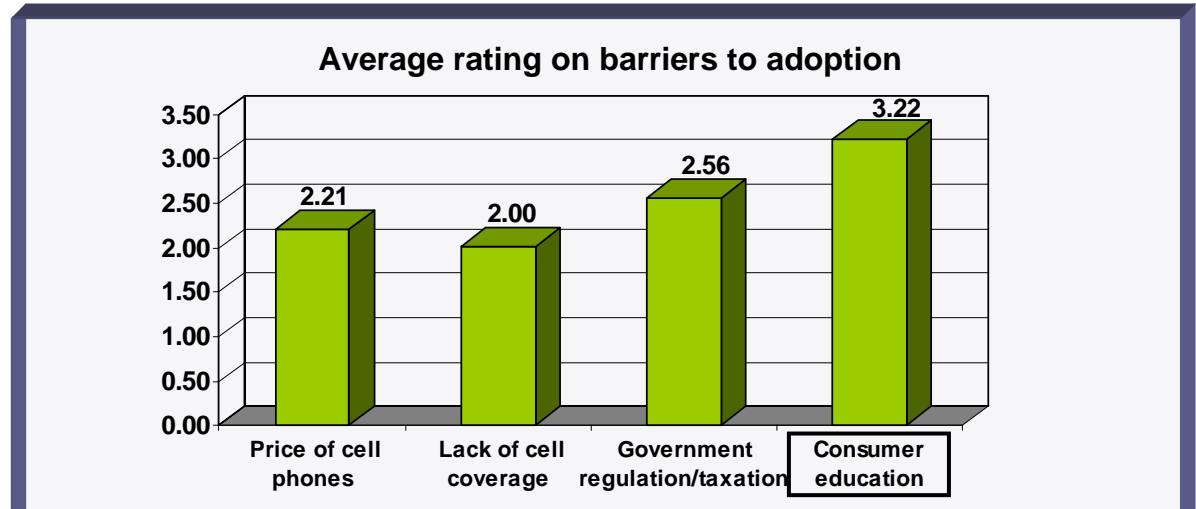
***Services – P2P transfers are rated the most appealing way of providing Mobile Financial Services to the Unbanked/ Underbanked, while cross-border remittances are the least appealing***

- On a scale of 1-4, with 4 as the most attractive and 1 as the least, respondents have selected direct payment transfers, such as P2P Transfers and Bill Payment, as the top two options for providing mobile financial services to the unbanked/underbanked
- P2P transfers are rated highest by respondents in Asia
- While cross-border remittances are rated low, respondents in America view this option as more attractive than those from Asia and EMEA—likely because cross-border remittances are a common practice among senders and receivers in the Americas (e.g., US and Mexico)



**Barriers to Adoption– Lack of consumer education is rated as the biggest barrier to the success of providing financial services to the unbanked/underbanked via mobile phones**

- Mobile technology innovations and increased availability of mobile access points around the world are good indicators as to why respondents rated cell coverage as the least important barrier to adoption
- With the cost of obtaining cell phones decreasing around the world, it is not surprising that respondents also view this option as a less important barrier
- Consumer education, on the other hand, will play a significant role in adoption as owners of cell phones learn how to leverage mobile technology for financial uses



## ***Additional Barriers to Adoption – Additional barriers include a weak business model, undefined value proposition, regulation and security issues***

**Question: What, if any, other significant barriers do you see to the success of Mobile Financial Services for the unbanked/underbanked?**

### **Top 4 Responses**

#### **Business Model**

- 1. Unclear business model in managing micropayments, fee structures, interoperability, and parties involved could present a serious challenge to the success of mobile financial services**

#### **Economics**

- 2. Value proposition for merchants and consumers involved**

#### **Regulations**

- 3. Regulation of non-financial institutions**

#### **Reliability and Security**

- 4. Unreliable fund transfer, fraud, and lack of security**

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## ***Our Firm***

Edgar, Dunn & Company is a director-owned management consulting firm established in 1978 and based in San Francisco.

We are recognized as global thought leaders in the financial services industry through our deep payments knowledge, extensive industry experience, and specialized skills in payments strategy, risk management, product development and marketing, and regulatory compliance.

We help our clients build value, improve performance, and manage risk to achieve their strategic goals and objectives.

Today we serve clients in more than 30 countries on six continents from offices located in San Francisco, Atlanta, New York, London, Frankfurt and Sydney.





### ***Global Thought Leaders in Payments***



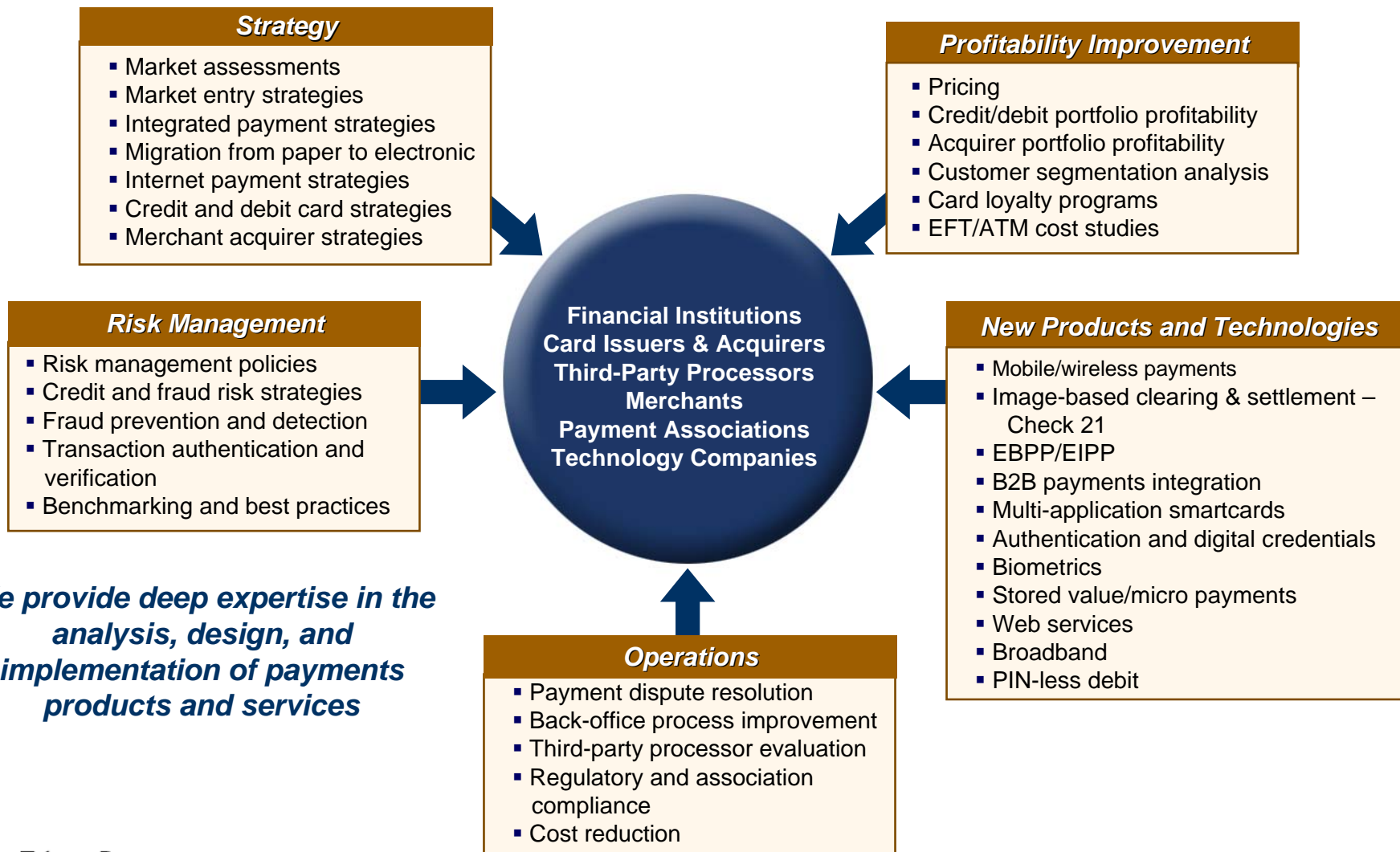
Countries: 30

Offices: U.S., U.K.,  
Germany and  
Australia

# Our Approach

<i>Approach</i>	<i>Description</i>	<i>Benefits</i>
 <p><b>Our Most Senior Professionals Consult</b></p>	<ul style="list-style-type: none"> <li>▪ Every project team includes our most experienced professionals</li> <li>▪ Directors are active participants in the engagement, not just advisors</li> <li>▪ Our professionals average more than 20 years experience in both industry and consulting</li> </ul>	<p>Clients benefit from deep payments expertise and years of hands-on experience</p>
 <p><b>We Deliver Global Services</b></p>	<ul style="list-style-type: none"> <li>▪ We offer our clients the full expertise of our firm on every project</li> <li>▪ Projects are staffed with resources from multiple markets</li> <li>▪ Our “one-firm” style of consulting is unique in the industry</li> </ul>	<p>This approach helps our clients implement winning strategies globally</p>
 <p><b>We Help Implement Our Advice</b></p>	<ul style="list-style-type: none"> <li>▪ We focus on a handful of initiatives that are critical to our clients’ businesses</li> <li>▪ We work side-by-side with clients to achieve desired changes</li> <li>▪ Our small consultant teams collaborate with our clients to meet the desired objectives</li> </ul>	<p>We conclude projects only after our clients are satisfied with the knowledge transferred</p>
 <p><b>We Invest In Long-Term Relationships</b></p>	<ul style="list-style-type: none"> <li>▪ We view our clients as partners and we invest significant time and resources to understand their unique characteristics and issues</li> <li>▪ Our goal is to maximize the value of their investment in us</li> </ul>	<p>Many of our clients have trusted us to help them shape their strategies for more than 20 years</p>

# Our Services



*We provide deep expertise in the analysis, design, and implementation of payments products and services*

## Contact Information



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