

THE MOBILE PAYMENTS READINESS INDEX: A GLOBAL MARKET ASSESSMENT

While it's early days for the adoption of mobile payments globally, some markets are making progress toward attaining the right mix of market forces and consumer acceptance. That's among the top-level findings of the MasterCard Mobile Payments Readiness Index (MPRI), a rigorous, data-driven survey of the global mobile payments landscape. Using public and proprietary data, as well as original market research, the survey gauges the preparedness and receptivity of 34 countries for mobile payments of three varieties—person to person (P2P), mobile e-commerce (m-commerce), and mobile payments at the point of sale (POS).

On a scale of zero to 100, the 34 countries achieved an average mobile readiness score of 33.2. No market reached a score of 50—indicating there is still work to be done before mobile payments become mainstream. Other top-level findings include:

- No two global markets are identical; each is driven by local conditions of environment, infrastructure, regulation, and financial services.
- In the vast majority of markets, more consumers are currently using mobile payments for m-commerce than for person-to-person or point-of-sale transactions.
- Consumers are typically drawn to mobile payments either for access to electronic payments (mainly in developing economies) or the convenience of mobile phone payments (in the developed world).
- Conditions on the ground, such as a stable telco network, established financial services, and progressive regulation, do not ensure consumer readiness—the one essential variable—in any given market.

33.2 THE GLOBAL AVERAGE OF READINESS FOR MOBILE PAYMENTS IS 33.2 ON A SCALE OF ZERO TO 100.

EXECUTIVE SUMMARY

MasterCard believes that a score of 60 on the MPRI will indicate that a market has reached the inflection point—the stage at which mobile devices account for an appreciable share of the payments mix. The most advanced market in the Index, Singapore, attained a score of 45.6.

To be ready for mobile payments, markets need to achieve a balance of high scores across the six components that comprise the Index: Environment (economy and scale), Infrastructure (telecommunications and technology), Regulation, Financial Services, Consumer Readiness, and Mobile Commerce Clusters (the degree of integration and partnering among banks, telcos, and the government).

Some global markets lead in certain components, while falling behind in others. A close reading of the findings reveals that most markets are still capable of being molded in the interests of consumers looking for convenience, security, and financial inclusion.

INTRODUCTION

The MasterCard Mobile Payments Readiness Index provides a rigorous, data-driven situation report on the status of the payments business in 34 global markets. Specifically, it measures these countries' readiness to shift from plastic to interactive mobile devices. By investigating three mobile payment types—person to person, mobile commerce, and mobile payments at the point of sale—the MPRI offers a comprehensive view of the current state of mobile payments as well as the course they will likely take in the near future, both regionally and on a country level.

KEY FINDINGS

The MPRI offers a comprehensive view of the current state of mobile payments as well as the course they will likely take in the near future, both regionally and on a country level.

No market has progressed to the inflection point of 60 on the mobile payments adoption curve. On the MPRI's scale of zero to 100, overall country scores range from 22.4 to 45.6, a narrow spectrum. No one country is a standout—with the possible exception of Kenya—and no one country has a monopoly on success factors. There is opportunity in every market.

Consumer readiness is a critical success factor. The most advanced infrastructures in the world, with responsive legal systems, mature economies, and sophisticated technology networks, may be fertile ground, but until consumers embrace mobile payments, that ground will remain fallow. Consumer familiarity, willingness, and actual usage are necessary conditions for mobile payments to take off.

Environment, infrastructure, regulation, and financial services are table stakes for readiness. The interplay among these market forces is as important as the relationship between these forces and consumer readiness.

Partnerships can greatly accelerate progress. Partnerships among the key players in the mobile payments ecosystem—financial institutions, telcos, governments, technology providers, and others—can speed the commercialization of mobile payments.

Segmentation is the key to early adoption. The path to success will likely differ from country to country, based on consumer segments' varying degrees of receptivity to mobile payments.

M-commerce has achieved the greatest success so far. Significant consumer experience with e-commerce is part of the reason why m-commerce is the leading mobile payment type in most of the markets surveyed.

The MPRI does not rank order the 34 markets surveyed in terms of *value*—actual or potential. Rather, it operates objectively on three levels. On the global level, it offers an assessment of where the *industry* is and how far it has to go in terms of mass adoption of the technology. On a market level, it presents a snapshot analysis of each *country's* current situation in terms of conditions on the ground—market forces and consumer readiness—while prescribing activities and initiatives to bridge these gaps. Finally, on a conceptual level, it isolates the *success factors* that issuers, acquirers, merchants, telcos, device manufacturers, networks, and operating system vendors need to consider in building mobile strategies.

METHODOLOGY

The MPRI is fundamentally a data-driven Index. It includes 50 variables comprising six components. MasterCard weighted each of these components, combining the results to create a unitary score on a 100-point scale for each of the 34 countries.

MasterCard drew the data that compose the variables from public sources such as the World Bank and International Telecommunications Union, and combined them with proprietary MasterCard data, market research, and analysis.

The Six Components

The components are a mix of quantitative and qualitative data. Five of the components—Environment, Infrastructure, Regulation, Consumer Readiness, and Financial Services—are in large part quantitative. The remaining one—Mobile Commerce Clusters—is a more qualitative assessment of readiness.

The **Consumer Readiness** component is a proprietary MasterCard asset that differentiates the Index from other gauges of mobile payments readiness. Rather than focus exclusively on technology and capability, MasterCard surveyed an average of 1,000 consumers in each of the 34 markets regarding their familiarity with, willingness to use, and current usage of each of the three types of mobile payments.

The **Environment** component measures economic, technological, and demographic elements such as a market's per capita income, consumer access to the Internet, and how well businesses adapt to new technologies.

The **Financial Services** component measures the level of development of consumer financial services, such as how well consumers are treated by the industry, the accessibility and affordability of financial services, and the penetration rate of payment cards.

The **Infrastructure** component measures the breadth and sophistication of the mobile phone industry by calibrating variables such as mobile phone penetration, network coverage, and levels of NFC terminalization.

The MPRI is fundamentally a data-driven Index. It includes 50 variables comprising six components. MasterCard weighted each of these components, combining the results to create a unitary score on a 100-point scale for each of the 34 countries.

The **Mobile Commerce Clusters** component analyzes partnerships or joint ventures among financial service companies, telcos, governments, and other members of the mobile payments ecosystem. As no one entity can develop and promote mobile payments by itself, partnerships generally ensure smoother and more successful product introductions.

The **Regulation** component assesses the structure and efficiency of a market's legal and governmental bodies in terms of how they interact with business, particularly the communication and technology businesses.

THE INTERPLAY AMONG THE SIX COMPONENTS IS CRITICAL



CONSUMER READINESS

- Survey-based indicators
- Familiarity with using a mobile device to send money to family and friends
- Frequency of using a mobile device to pay for merchandise at a store
- Willingness to use a mobile device to browse the Internet to shop for and purchase merchandise



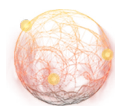
ENVIRONMENT

- Percentage of individuals using the Internet
- Household consumption expenditure
- Impact of information and communication technology on access to basic services
- Percentage of population residing in urban areas
- Technology absorption by businesses



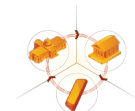
FINANCIAL SERVICES

- Affordability of financial services
- Financial cards in circulation
- Financial card transactions
- Customer satisfaction with companies
- Foreign direct investment and technology transfer
- Effectiveness of anti-monopoly policy



INFRASTRUCTURE

- Mobile telephone subscriptions
- Mobile telephone subscriptions as a percent of the population
- Annual investment in telecom services
- Revenue from mobile services as a percent of revenue from all telecomm services
- NFC-enabled merchant locations as a percent of the population



MOBILE COMMERCE CLUSTERS

- Scale of telco-bank partnerships to promote mobile commerce
- Scale of involvement by government groups



REGULATION

- Intellectual property protection
- Government prioritization of information and communication technology
- Burden of government regulation
- Government procurement of advanced technology products
- Information and communication technology use and government efficiency
- Efficiency of legal framework in settling disputes
- Efficiency of legal framework in challenging regulations

Component Interaction

Examining Consumer Readiness scores in the context of the other components highlights the extremes of the spectrum across which the markets are arrayed. Markets such as Singapore have highly advanced infrastructure, financial systems, and regulatory structures, but relatively weak consumer willingness. Conversely, in markets such as Kenya, the infrastructure, financial services, and regulatory systems score much lower, while consumer willingness is high. Both of these markets are in the top quintile, but neither has widespread mobile payments adoption across all three payment types. Markets cannot develop one component and neglect the others: *All* the ingredients are needed.

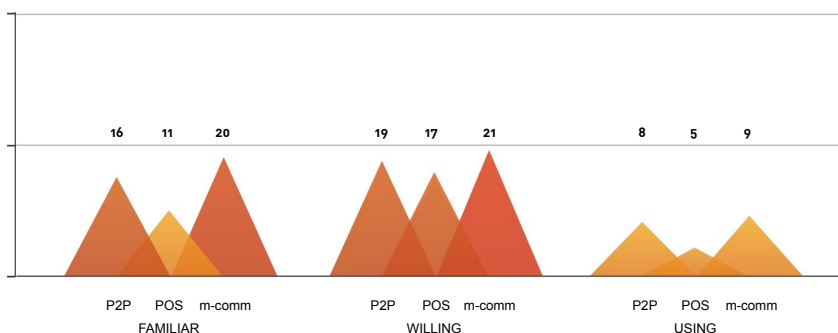
While a consumer base that is familiar with mobile payments and willing to use them is not the only condition needed for adoption of mobile payments, it is a *necessary* one. How technologically capable a market is of developing mobile payments doesn't matter if consumers aren't inclined to use the technology.

One of the strategies that the consumer research points to is the need for analyzing consumers based on what MasterCard calls the "familiarity-willingness gap." For any of the three types of mobile payments, the most important metric is the difference between how familiar consumers are with the form of payment and how willing they are to use it. This method clarifies the approach mobile payments industry players should take. For example, in a country such as France, where familiarity is higher than willingness across all payment types, consumers are not yet sold on the value of the offering; product enhancement and a sharpening of the value proposition are needed. On the other hand, in a country such as the Philippines, where willingness is equal to or higher than familiarity across all payment types, the situation calls for marketing and consumer education efforts that allow consumers who aren't yet aware of mobile payments offerings to understand and take advantage of them.

While a consumer base that is familiar with mobile payments and willing to use them is not the only condition needed for adoption of mobile payments, it is a *necessary* one. How technologically capable a market is of developing mobile payments doesn't matter if consumers aren't inclined to use the technology.

CONSUMER READINESS: ROOM TO GROW

Index Average on a Scale of Zero to 100.

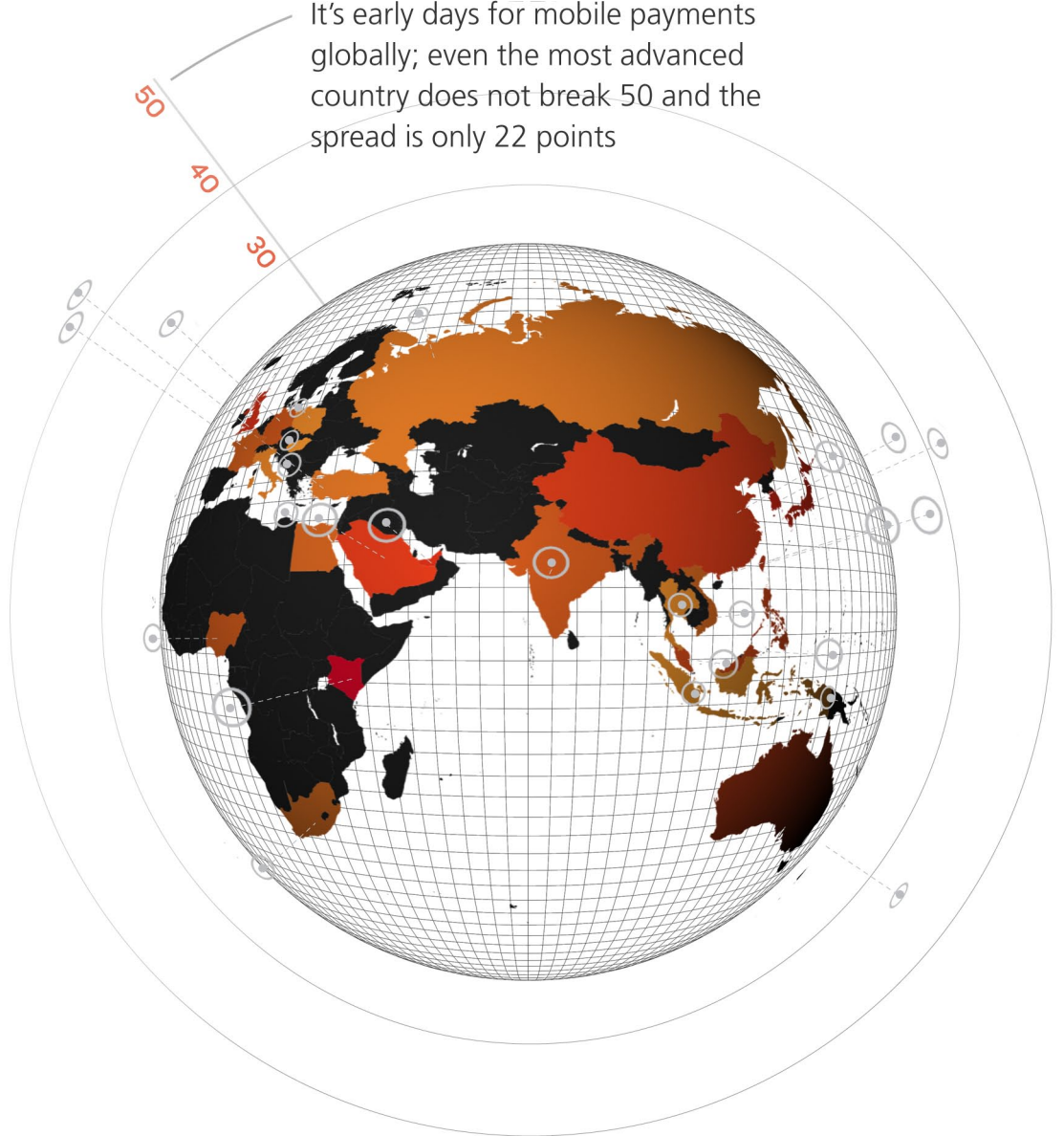




Mobile Payments Readiness Index

It's early days for mobile payments globally; even the most advanced country does not break 50 and the spread is only 22 points

- 45.6 Singapore
- 42.0 Canada
- 41.5 United States
- 40.4 Kenya
- 39.7 South Korea
- 39.6 Japan
- 37.9 United Arab Emirates
- 37.5 Saudi Arabia
- 37.5 United Kingdom
- 36.5 China
- 36.1 Taiwan
- 35.3 Australia
- 34.7 Philippines
- 34.3 Malaysia
- 33.7 Hong Kong
- 33.4 Brazil
- 32.7 New Zealand
- 32.4 Colombia
- 31.6 Germany
- 31.6 Thailand
- 31.5 India
- 31.3 Nigeria
- 31.2 France
- 30.2 Egypt
- 30.1 Vietnam
- 29.1 South Africa
- 28.8 Turkey
- 28.5 Russia
- 27.9 Poland
- 27.7 Mexico
- 27.0 Hungary
- 25.5 Italy
- 22.4 Indonesia
- 24.0 Argentina



33.2
Index Average

The global average of overall readiness for mobile payments

Singapore
Index Leader
45.6

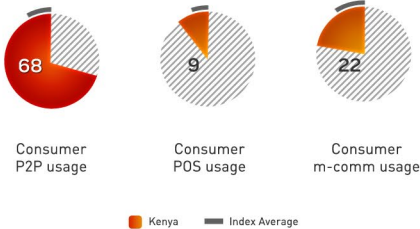
Inflection Point
60



CATEGORY LEADERS

CONSUMER READINESS

Kenya



Kenyan consumers' very high levels of familiarity with and frequent usage of mobile payments make the east African nation the top scorer on the Consumer Readiness component. Consumer Readiness scores are driven in large part by how frequently mobile payments are currently in use.

ENVIRONMENT

United States

\$33,000

Household consumption expenditure in the United States
Index Average: \$11,015

The United States claimed the leading spot on the Environment component, driven by factors of high household expenditure per capita – roughly \$33,000 compared with an Index average of approximately \$11,000.

FINANCIAL SERVICES

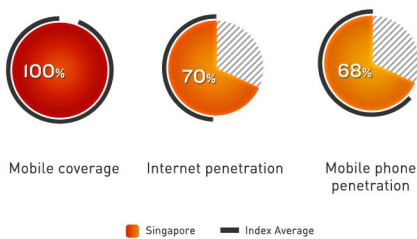
Japan



Japan's well-developed financial services sector puts it in the leading spot for the Financial component. At 91 percent, Japanese financial services get exceptional ratings for how well they treat consumers.

INFRASTRUCTURE

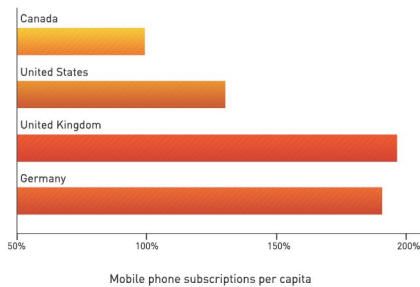
Singapore



Singapore's leading status on the Index is fueled by its top ranking in the Infrastructure component. Mobile phone penetration in Singapore is above the Index average, with 100 percent of the population covered by a mobile network compared to a 94 percent average for the Index.

MOBILE COMMERCE CLUSTERS

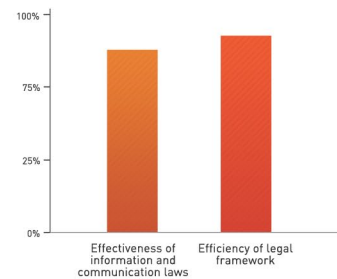
Canada



The cooperation among banks, mobile networks, and the government makes Canada the leader in the Mobile Commerce Cluster score. Other countries with high Mobile Commerce Cluster scores include Colombia, Japan, Singapore, South Korea, and the United Arab Emirates.

REGULATION

Singapore



Singapore's well-regarded and efficient regulatory system makes it the leader in the Regulation component. The key to Singapore's high score is its well-developed laws relating to information and communication technology, rated at 84 out of 100.

REGIONAL HIGHLIGHTS

Each global region exhibits its own strengths and weaknesses, and individual markets within those regions likewise have country-specific characteristics that determine how ready they are for mobile payments.

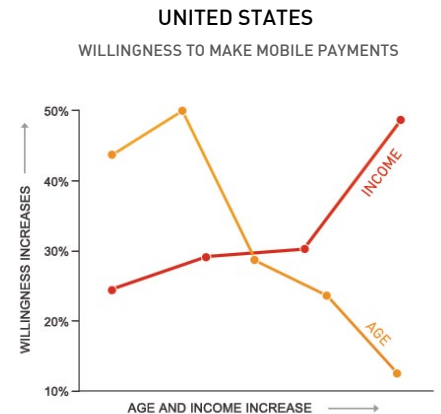
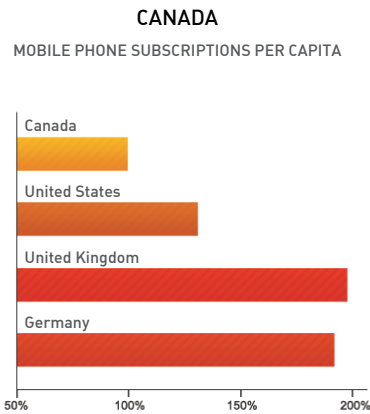
North America

Canada and the United States came close to the top of the global list, largely as a result of high scores in components related to quantifiable market forces such as Infrastructure and Environment. Nevertheless, Canada slightly edges out the United States predominantly on the strength of its consumer results and its Mobile Commerce Clusters score.

Canada and the United States came close to the top of the global list, largely as a result of high scores in components related to quantifiable market forces such as Infrastructure and Environment. Nevertheless, Canada slightly edges out the United States predominantly on the strength of its consumer results and its Mobile Commerce Clusters score.

The United States also has some vulnerabilities, most notably in its Consumer Readiness scores. The dilemma confronting the United States is the same one facing a number of other developed markets such as Australia. Although consumer scores were by no means negligible, they skewed male and young; and while interest in mobile payments increases with income, it declines with age. The question is: Are young males with (relatively) lots of money a broad enough segment to ignite a change as fundamental as a shift in payment form factor?

NORTH AMERICA IS ABOVE AVERAGE IN TERMS OF CONSUMER READINESS

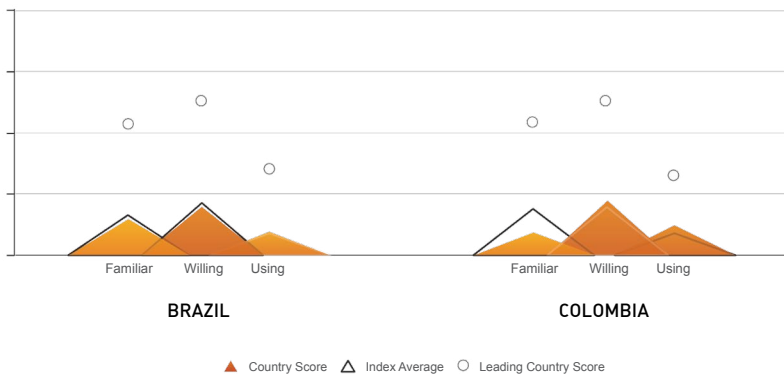


Latin America

In Latin America, the highest consumer scores went to Brazil and Colombia. The surprise here is Colombia, by no means the biggest market in the region and one that has just emerged from a period of considerable political and social turbulence. Nevertheless, Colombia has a consumer base that is ready and willing, though so far not very able, to conduct mobile payments. Colombians as a whole are slightly more likely to have a mobile device than they are to have a debit card, which suggests that Colombia could well be ready for a double marketing strategy based on payment type at both ends of the demographic spectrum.

CONSUMER READINESS IN LATIN AMERICA IS HIGHEST IN BRAZIL AND COLOMBIA

Scale : Zero to 100



Colombians as a whole are slightly more likely to have a mobile device than they are to have a debit card, which suggests that Colombia could well be ready for a double marketing strategy based on payment type at both ends of the demographic spectrum.

Asia Pacific, the Middle East, and Africa

Asia Pacific, the Middle East, and Africa (APMEA) represent the most diverse global region. The entire world knows about the success of M-Pesa in developing mobile payments in Kenya. Paradoxically, it was the great *disparity* in Kenya's scores—between Consumer Readiness and Financial Services, for example—that drove the market to its leading position. It was precisely the deficiencies in Kenya's banking, legal, and regulatory systems that created the demand and facilitated the development of P2P payments.

A very different market from Kenya is China, not simply in scale, but in character. In Kenya, the development of mobile payments was almost exclusively a bottom-up phenomenon, fueled by a pressing consumer need for a secure, convenient payment mechanism that obviated cash. In China, the consumer base is ready for at least two types of mobile payments—P2P and m-commerce—and the telcos are ready to oblige them. The question of financial services' role in the ecosystem suggests a partner strategy.

The entire world knows about the success of M-Pesa in developing mobile payments in Kenya. Paradoxically, it was the great *disparity* in Kenya's scores—between Consumer Readiness and Financial Services, for example—that drove the market to its leading position.

APMEA LEADS THE INDEX IN CONSUMER READINESS

9 out of **10**

component leaders are located in the Middle East, Asia, or Africa



Europe

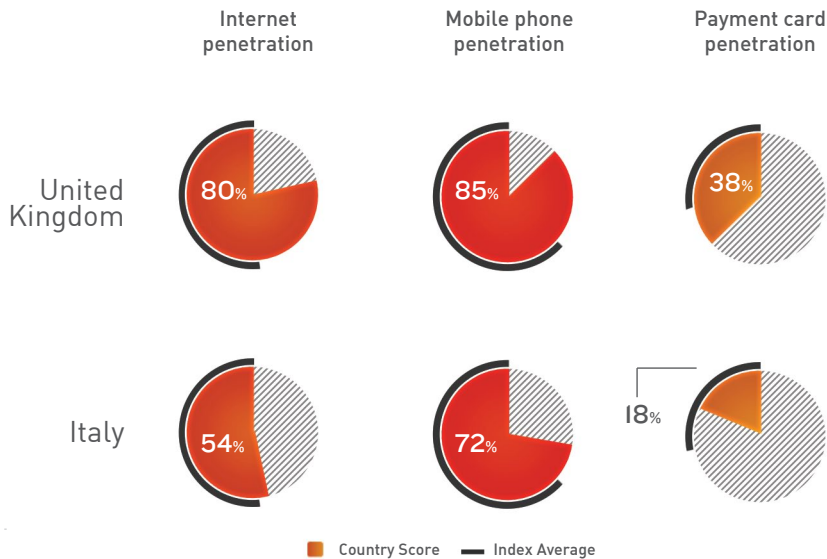
The prosperous and developed countries in the heartland of Europe—Germany, France, and Italy—did not rank as highly on the Index as did other integrated economies, both close by (the United Kingdom) and on the other side of the world (Australia). This has nothing to do with the economic and political uncertainty currently roiling the Eurozone. Rather, it is a result of the unique characteristics of each of these markets' payment systems and the unique profiles of their consumer populations.

In Germany and Italy, consumer attachment to cash is largely reflected not only in lower-than-average Consumer Readiness scores, but in some of the market forces that drive this lack of consumer interest—for example, the high cost of banking services in Italy.

Far more positive is the situation in the United Kingdom, where consumers show the highest levels of familiarity and willingness to use mobile payments in the region. For all three payment types, the results skew male, while income levels vary among the three payment types. Although it's still early days in Europe, consumer education to reinforce the benefits of mobile payments is necessary if they are to thrive in the region.

In Germany and Italy, consumer attachment to cash is largely reflected not only in lower-than-average Consumer Readiness scores, but in some of the market forces that drive this lack of consumer interest—for example, the high cost of banking services in Italy.

MOBILE PAYMENTS READINESS FACTORS IN THE UNITED KINGDOM AND ITALY DIFFER STARKLY



CONCLUSION

At the global level, some meta-themes emerge from the MPRI that can help all players orientate themselves as the new world of mobile payments takes shape.

Segmentation: While each market operates according to its own dynamic, a two-pronged segmentation strategy is beginning to take shape: The affluent and mass segments are seeking convenience while the underserved are looking for access to electronic payments.

Partnerships: Again and again in the Index, the lack of partnerships among players depressed scores and, more importantly, revealed correlations between the lack of such partnerships and weak or struggling consumer demand.

Emerging and Developed Markets: The dynamics of mobile payments adoption vary significantly between the developed and the emerging world. In Kenya, it was the lack of infrastructure, environment, regulatory, and financial services that enabled the success of M-Pesa. At the other end of the spectrum, developed economies such as Italy and Germany, with everything else going for them, need to build consumer readiness based on an understanding of the market characteristics driving their negative consumer scores.

To benefit fully from the MPRI, users ought to look not so much at the individual components, but at how they fit together. Especially revealing in this regard are stark disparities among components, which highlight opportunities to advance the cause of mobile payments globally.

SOURCES

United Nations (2011)
US Census Bureau (2011)
World Bank World Development Indicators (2010)
International Monetary Fund International Financial Statistics (2010)
International Telecommunications Union (2010)
World Economic Forum Global Information Technology Report (2011)
World Economic Form Global Competitiveness Report (2011)
Euromonitor International (2010)
The World Bank Information and Communications for Development
Online Database (2011)
CIA World Factbook (2012)
Proprietary Consumer Research for MasterCard Worldwide (2011)

For additional insights, visit <http://insights.mastercard.com> and www.mastercardadvisors.com

©2012 MasterCard. Proprietary and Confidential. All rights reserved.

Insights and recommendations are based on proprietary and third-party research, as well as MasterCard's analysis and opinions, and are presented for your information only.