MOBILE MONEY

FROM SHOPPING TO BANKING TO PAYMENTS, HOW MOBILE IS TRANSFORMING COMMERCE AROUND THE WORLD

OCTOBER 2016



AN UNCOMMON SENSE OF THE CONSUMER $^{\mbox{\tiny TM}}$

THE MOBILE OPPORTUNITY IS MORE THAN JUST LIP SERVICE

AROUND THE WORLD

- Mobile devices are indispensable shopping buddies used to compare prices (53%), look up product information (52%), look for coupons or deals (44%), make better shopping decisions (42%), make shopping trips quicker or more efficient (41%) and purchase products (38%).
- Mobile-banking activities, such as accessing account information (47%) and paying bills (42%), are more common than transferring money between bank accounts (36%). Usage rates are highest in Asia-Pacific.
- Mobile-only banking is most popular in developing countries with large unbanked populations; usage rates are highest in India (46%), Indonesia (37%), Mexico (34%) and Turkey (34%).
- Security concerns top the list of mobile-banking barriers (53%), followed by a preference for physical locations (31%) and not needing the service (28%).
- Of the top 10 markets that use peer-to-peer mobile transactions (giving to or receiving money from another person), eight are emerging markets.
- Only 28% of global respondents are highly likely to use mobile payments in bars, restaurants or retail stores, with rates highest in India (46%) and China (45%).
- Millennials lead the way when it comes to mobile shopping, banking and payment activities, and they're more than twice as likely as Baby Boomers and Silent Generation respondents to say they're likely to use a mobile-only bank.

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Food, water and clean air: All are essentials in our daily lives. But mobile devices? They may not be critical to survival, but a majority of consumers around the world (56%) can't imagine life without them, and 53% say they feel anxious when their devices aren't close at hand.

Indeed, for many consumers, mobile devices are a constant companion with powerful benefits. Among global respondents, 74% say they appreciate the freedom of being connected anywhere, anytime, and 70% strongly or somewhat agree that their mobile device has made their life better. This constant connectivity has changed the nature of connections. Fully two-thirds of global respondents (66%) strongly or somewhat agree that electronic interactions are replacing face-to-face ones, and almost half (47%) say they'd rather text than talk. In fact, interactions are turning into transactions.

The world of commerce is being transformed as consumers use their mobile devices to conduct product research, look for deals or coupons and, increasingly, purchase goods and services from virtually any store from nearly anywhere in the world. Mobile devices are also transforming the banking and payments industry, creating more ways to save and pay than ever before. They're providing financial inclusion to the estimated 2 billion unbanked consumers around the world. And the revolution in banking and payments is likely to be a strong driver of consumer spending in the years to come. The Demand Institute, jointly operated by Nielsen and The Conference Board, estimates that growth in access to cashless payments could lead to as much as \$10 trillion in additional consumer spending over the next decade.

"Mobile commerce has enormous implications for the entire retail ecosystem," said Stuart Tagg, Financial Services Leader, Nielsen Europe. "Mobile devices are not only bringing new consumers into the modern, connected economy, but are also enabling a more customized experience, as products and services can be more closely tailored to behaviors, needs and preferences. But driving higher adoption and usage starts when companies develop a deep understanding of how consumers are shopping and transacting in a digital world and then use that understanding to design strategies around their habits and preferences."

The Nielsen Mobile Shopping, Banking and Payment Survey polled more than 30,000 online respondents in 63 countries to understand how mobile devices are influencing three distinct yet interconnected activities: shopping, banking and payments. We examined the kinds of mobile activities respondents are currently engaged in and their likelihood to participate in the future. We also examined the barriers to adoption for mobile banking and payments, as well as the incentives that would encourage wider use.

ABOUT THE GLOBAL SURVEY METHODOLOGY

The findings in this survey are based on respondents with online access in 63 countries (unless otherwise noted). While an online survey methodology allows for tremendous scale and global reach, it provides a perspective on the habits of only existing internet users, not total populations. In developing markets where online penetration is still growing, respondents may be younger and more affluent than the general population of that country. In addition, survey responses are based on claimed behavior, rather than actual metered data. Cultural differences in reporting sentiment are likely factors in the outlook across countries. The reported results do not attempt to control or correct for these differences; therefore, caution should be exercised when comparing across countries and regions, particularly across regional boundaries.

LET YOUR FINGERS DO THE SHOPPING

For many consumers, mobile devices have become indispensable shopping buddies. More than half of global respondents say they use their mobile device when shopping to compare prices (53%) or look up product information (52%). More than four in 10 respondents use their device to look for coupons or deals (44%), make better shopping decisions (42%) or make shopping trips quicker or more efficient (41%).

Asia-Pacific leads the way when it comes to mobile shopping, with use above the global average for every activity included in the survey. In contrast, more than one-quarter of North American (30%) and European (27%) respondents say they don't use their mobile device for any of those mobile shopping activities.



CONSUMERS AROUND THE WORLD USE MOBILE DEVICES AS A SHOPPING SIDEKICK

PERCENTAGE WHO USE THEIR MOBILE DEVICE FOR SHOPPING ACTIVITIES



Consumers aren't just using their devices as a shopping aid. Increasingly, they're also using them to make purchases. While m-commerce (retail sales conducted via a mobile device) is still a very small portion of total retail sales in many markets, including the U.S. (2.4%), Germany (2.4%), India (1.6%), Canada (1.4%), France (1.4%) and Brazil (0.4%),' it is gaining momentum, and eMarketer predicts strong growth will continue, especially as rates for internet penetration and smartphone adoption rise. The firm projects that m-commerce will grow 28% or more annually in India between 2016 and 2019; in fact, it's expected to nearly double (+96.3%) in 2016. Double-digit annual growth is also expected in Mexico (35% or more), Brazil (29% or more), the U.S. (29% or more), Canada (19% or more) and France (15% or more) between 2016 and 2019. A similar trend is expected even in the largest mobile markets. M-commerce sales are expected to grow 30% or more annually in China and 12% or more in the U.K. over the same period.

Worldwide, 38% of respondents in Nielsen's survey say they purchased a product or service on their mobile device in the past six months, and 34% say they used a mobile app to make a purchase in the same period. Asia-Pacific has the highest self-reported rates of mobile purchasing. Half of respondents in China (50%), and roughly half in India (49%), South Korea (47%) and Vietnam (46%) say they purchased a product or service using their mobile device in the past six months. These countries also top the list when it comes to the share of respondents who say they made a purchase via a mobile app (50% in China, 48% in South Korea, 47% in India and 43% in Vietnam).

"Optimizing the mobile experience—whether it's an app or a mobile version of a desktop site—should be at the heart of any e-commerce strategy," said Tagg. "A poor mobile experience may lead to lower conversion rates and drive shoppers to competitors' storefronts, sites or apps. Retailers developing mobile products should keep in mind four fundamental shopper needs: ease, convenience, choice and value. That is, the solution should satisfy a variety of trip purposes and deliver strong value for money in a way that requires less time and effort."

¹eMarketer. Data is from July 2016 for all markets except the U.S., which is from August 2016.

STRATEGY FOR MOBILE-SHOPPING SUCCESS

Recognize and cater to different mobile-shopping segments. While more consumers are using their phones as a shopping tool, the activities they're participating in on these devices vary widely, and retailers may need different tactics to win consumers. Even the same shopper can at any given point be motivated by very different needs, from speed to convenience to price. Savvy retailers recognize these differences and incorporate mobile strategies across a range of touch points, customizing messages to provide a more relevant shopping experience. Winning brands also recognize that while mobile is a critical component of any retail strategy, an integrated approach is necessary to drive sales in both online and offline channels and to provide an engaging experience for consumers regardless of whether they buy in-store or online.

MOBILE SHOPPING MOVERS & SHAKERS

ASIA-PACIFIC
EUROPE
AFRICA/MIDDLE EAST
LATIN AMERICA
NORTH AMERICA

PURCHASED A PRODUCT OR SERVICE



COUNTRIES THAT EXCEED GLOBAL AVERAGE (38%)

CHINA	
INDIA	
SOUTH KOREA	
VIETNAM	
RUSSIA	
BELARUS	
INDONESIA	
ROMANIA	
UKRAINE	41%
GREECE	
TURKEY	

USED A MOBILE APP TO MAKE A PURCHASE



COUNTRIES THAT EXCEED GLOBAL AVERAGE (34%)

CHINA	50%
SOUTH KOREA	48%
NDIA	.47%
/IETNAM	43%
NDONESIA	. 41%
SOUTH AFRICA	.35%

Note: Percentage who say they have performed activity on their mobile connected device in past six months Base: All respondents who say they own any mobile connected device(s)

Source: The Nielsen Mobile Shopping, Banking and Payment Survey Q1, 2016

PAYING BILLS AND CHECKING THEM TWICE

With mobile shopping on the rise, consumers are also using digital tools to monitor their spending and manage their finances, but participation rates vary widely by activity and by region.

Certain mobile-banking activities, such as accessing account information and paying bills, are quite common. Nearly half of global respondents (47%) say they checked an account balance or a recent transaction on their mobile device in the past six months, and 42% say they paid a bill using their mobile device. Participation in these activities will likely be even higher in the near future: 53% of global respondents say they're highly likely to check a bank account balance or recent transaction, and 46% say they're likely to pay bills on their mobile device in the next six months.

Moving and depositing money are less common mobile-banking activities, but still just over one-third of global respondents (36%) say they transferred money between their own bank accounts on a mobile device in the past six months. More respondents (42%) expect they'll transfer money between bank accounts in the next six months. Only 10% of global respondents, however, say they've deposited a check using their device's camera function; 18% expect to do so in the next six months.

Asia-Pacific exceeds the global average when it comes to self-reported participation in mobile-banking activities, while response rates are lower in Europe, Africa/Middle East and Latin America. North America also is below the global average when it comes to current and future participation in mobile banking, with one exception: The region has the highest percentage of respondents who say they've deposited a check using their device's camera function (15%) and the second-highest percentage who expect to do so in the next six months (23%, just behind Asia-Pacific at 24%). This may be due in part to the relatively high usage and acceptance of checks in the region compared with other countries. In the U.K., for example, most banks don't provide checkbooks and most retailers don't accept checks. And in the Middle East, cash remains king, while checks are less common.

MOBILE BANKING SPOTLIGHT ON SWEDEN & CHINA



PERCENTAGE OF RESPONDENTS WHO SAID THEY HAVE DONE THE FOLLOWING ACTIVITIES IN THE PAST SIX MONTHS

	SWEDEN	CHINA	GLOBAL
Used a banking/insurance website	40%	27%	28%
Used a banking/insurance app	44%	28%	27%
Checked a bank account balance or a recent transaction	63%	62%	47%
Transferred money between bank accounts	58%	56%	36%

PERCENTAGE OF RESPONDENTS WHO SAY THEY ARE HIGHLY LIKELY TO DO THE FOLLOWING ACTIVITIES IN THE NEXT SIX MONTHS

	SWEDEN	CHINA	GLOBAL
Check a bank account balance or recent transaction	61%	64%	53%
Transfer money between bank accounts	53%	59%	42%

The countries with the highest self-reported rates of participation in mobile banking are diverse. They include several developing markets, such as China, South Africa, Venezuela and India, and also more mature markets, such as Sweden.

"In some developing markets, usage is primarily driven by rural consumers that have the ability to access financial services without traveling to physical locations. They can also send money instantly to those who may be financially dependent on them," said Tagg. "In China, widespread adoption of credit cards has not caught on, and many people don't use banks at all. Consequently, Chinese financial institutions are leaders in offering many mobile money options. Sweden is a unique developed market that is ahead of the rest of the world when it comes to adopting mobile banking and mobile transactions. The strength of online and mobile banking in this market has been driven by high smartphone adoption and collaboration between the banks and government to establish BankID, a single digital security system used across financial and government services."

ASIA-PACIFIC IS HIGHLY ENGAGED WITH MOBILE-BANKING ACTIVITIES



Base: All respondents who say they own any mobile connected device(s) Source: The Nielsen Mobile Shopping, Banking and Payment Survey Q1, 2016

MOBILE-BANKING ACTIVITY USAGE AND INTENTIONS BY REGION

Not surprisingly, Millennials lead the way when it comes to mobile banking. Of all age groups, Millennials have the highest percentages who say they've participated in banking activities and say they plan to in the next six months. Generation Z follows closely behind.

MILLENNIALS & GENERATION X ARE ENGAGED MOBILE-BANKING USERS

GLOBAL AVERAGE: MOBILE-BANKING ACTIVITY USAGE AND INTENTIONS BY GENERATION

- CHECK A BANK ACCOUNT BALANCE OR A RECENT TRANSACTION
- DEPOSIT A CHECK TO A BANK ACCOUNT USING THE DEVICE'S CAMERA FUNCTION



CYBERSECURITY IS A REAL CONCERN

Paying bills, checking account balances and transferring funds from a mobile device may be convenient and easy, but security is an everincreasing consideration—and a critical barrier to success. For many, cybersecurity concerns are a deal breaker. In fact, security concerns top the list of mobile-banking barriers, cited by 53% of global respondents who say they're not likely to participate in mobile-banking activities. In addition, roughly three in 10 say they don't use mobile banking tools because they prefer physical locations (31%) or don't see a need for mobile-banking tools (28%). Interestingly, while mobile-banking usage varies widely by age and region, the primary barriers are remarkably similar across geographies and generations.





MOBILE-BANKING SECURITY IS TOP OF MIND ACROSS ALL AGES

GLOBAL AVERAGE: TOP BARRIERS TO MOBILE BANKING BY GENERATION

C	I'M CONCERNED ABOUT SECURITY	D VIS LO BR	I PREFER TO SIT A PHYSICAL CATION/BANK ANCH FOR MY NKING NEEDS	FOR MOBILE BANKING	MY DEVICE SCREEN IS TOO SMALL	
GENERATION Z (15-20)	40%		? 35%	(1) 42%	Q 11%	
MILLENNIALS (21-34)	50%		32%	26%	13%	
GENERATION X (35-49)	55%		28%	22%	17%	
BABY BOOMERS (50-64)	58%		29%	31%	18%	
SILENT GENERATION (65+)	59%		32%	44%	21%	

Base: All respondents who are not likely to participate in certain banking activities on mobile connected device(s) Source: The Nielsen Mobile Shopping, Banking and Payment Survey Q1, 2016

"Security concerns are highly emotional," said Tagg. "Mobile-banking services have incorporated many features to protect customers' financial information, but the threat of hacks and data breaches is real, and many consumers have a general uneasiness about sharing personal information digitally. While banks continuously monitor security threats and incorporate new measures to protect customers' assets, they also need to better educate customers about the steps they're taking, so customers believe their information is as secure on their mobile device as it is in a physical branch location. In the long-term, concerns about fraud and security are initial hitches that will likely be overcome. The value mobile banking presents for consumers far outweighs the reason not to participate."

Convincing customers to use mobile banking tools instead of visiting a branch or simply going online on a computer, however, is more difficult. Robust features and functionality that ensure customers can complete the same activities—and more—on their mobile devices as they can in person or online is essential in driving adoption.

Which features do mobile device owners want in future banking apps? Facial recognition and check scanning and deposit technology are the most popular features, cited by 41% and 39% of global respondents, respectively. Respondents in Asia-Pacific are particularly enthusiastic about these features, while those in Europe and North America are below the global average. Slightly fewer global respondents (37%) want the ability to transfer money to other accounts or other people, with the highest percentage in Africa/Middle East (44%). This region also exceeds the global average—along with Asia-Pacific (40%) and Latin America (38%)—when it comes to wanting the ability to interact with their bank on social media via a mobile app (40%).

STRATEGY FOR MOBILE BANKING SUCCESS

Focus on the customer experience. The mobile banking experience differs greatly from what respondents would experience if they visited a branch or even banked online. Consequently, financial service providers need to design their mobile banking services with the device in mind, focusing on opportunities to minimize the effort required to use them. They should also look for opportunities to capitalize on the breadth of data—such as geo-location—and the features available via a mobile phone—such as text message alerts or calendar integration—to add value to their services and stay relevant to tech-savvy consumers.



FEATURES WANTED IN MOBILE-BANKING APPS OF THE FUTURE



MOBILE-ONLY BANKS REPLACE INTERPERSONAL WITH INTERACTIVE

An emerging trend in the financial industry is mobile-only banks, which do not have physical locations and are serviced entirely via a mobile app. The savings on infrastructure may be passed on to the customer in the form of highly competitive interest rates and friendlier fee structures. However, mobile-only banks face a significant challenge when it comes to recruiting new customers, especially in mature markets where financial systems are deeply ingrained.

Around the world, just over one-quarter of respondents (27%) say they're highly likely to use a mobile-only bank, while slightly more (28%) say they're not at all likely. Respondents in Asia-Pacific are the most willing to use a mobile-only bank, while those in Europe and North America are well below the global average. More than half of North American respondents (51%) and more than four in 10 European respondents (44%) say they're not likely to use a mobile-only bank, compared with less than one-fifth of Asia-Pacific respondents (18%).

When it comes to the likelihood of using a mobile-only bank, India leads the way, with 46% of respondents saying they're highly likely. Mobile-only banks may be particularly well suited to India for several reasons. First, the country has a sizable unbanked population; in 2014, according to the World Bank, 53% of Indian consumers had a bank account, compared with 62% worldwide. These consumers may have different expectations than consumers who are accustomed to formal financial institutions. Second, India has a large rural population—the World Bank estimates that 67% of Indians live in rural areas—that cannot easily access physical bank locations. The likelihood of using a mobile-only bank is also above the global average in Indonesia (37%), Mexico (34%) and Turkey (34%). Perhaps not coincidentally, bank account penetration is below the global average in all three countries (36%, 39% and 57%, respectively, according to the World Bank).

Not surprisingly, tech-savvy Millennials are more than twice as likely as Baby Boomers and Silent Generation respondents to say they're likely to use a mobile-only bank. More than one-third of Millennials (34%) say they're highly likely to use a mobile-only bank, compared with 14% of Baby Boomers and 6% of Silent Generation respondents.



LIKELIHOOD OF USING A MOBILE-ONLY BANK BY REGION AND BY AGE







CONVERTING A MOBILE-ONLY MAYBE TO A MOBILE-ONLY MUST-HAVE

While only 27% of global respondents are highly likely to use a mobileonly bank, almost half (45%) aren't as certain, saying they're somewhat likely. So how do you convert a maybe to a must-have? While there is no one magic solution, some incentives are more powerful than others.

More than four in 10 global respondents who are somewhat likely to use a mobile-only bank say they would be highly likely to use one if the bank offered lower or no fees on the purchase of investment products (43%), higher deposit interest rates (42%) or discounts on lifestyle activities, such as booking entertainment tickets or purchasing movie tickets (42%). Slightly fewer (39%) say a quicker turnaround time on some transactions would entice them to try a mobile-only bank. Not surprisingly, convincing respondents who are not at all likely to use a mobile-only bank will be difficult, even with incentives. The most enticing incentive is higher interest rates, cited by 18% of respondents who say they're not likely to use a mobile-only bank. Even fewer say they're highly likely to use a mobile-only bank if it offered lower or no fees on purchase of investment products (16%), discounts on lifestyle activities (15%) or lower lending rates (13%).

"Mobile offerings are widely becoming a core part of every financial institution's strategy, but mobile-only banking is best positioned for growth in developing markets where large unbanked populations do not have easy access to physical locations," said Tagg. "With that said, however, there is an opportunity to expand usage in developed markets, too—especially among younger generations. And while great design and advanced features are important, they aren't sufficient. The value proposition must be strong enough that consumers not only are willing to give up the in-person benefits of branch access, but also are getting unique value-added services in return."

The mobile-only bank also is incredibly complex for operators. Not only must the mobile app be robust enough to ensure customers can do everything and receive top-quality support, but it must also function well across a variety of devices and operating systems that are constantly evolving and outside of the control of operators. 45% of global respondents say they're somewhat likely to use a mobile-only bank. what incentives are most likely to convert them to users?

HIGHLY LIKELY

SOMEWHAT LIKELY

NOT LIKELY



Lower or no fees on purchase of investment products 43% | 48% | 9%



Discounts on lifestyle activities, such as booking entertainment tickets or purchasing movie tickets 42% | 49% | 9%



Higher deposit interest rates 42% | 45% | 13%



Quicker turnaround time on some transactions 39% | 53% | 8%



Lower lending rates 32% | 51% | 17%



A straight-through process on loan applications (i.e., upload all income documents and you'll be able to apply) 28% | 55% | 17%

Base: Respondents who are somewhat likely to use a mobile-only bank

Source: The Nielsen Mobile Shopping, Banking and Payment Survey Q1, 2016

MONEY ON THE MOVE

Consumers aren't just using their mobile devices to shop, check their bank account status or transfer money between their accounts. They're also using them to pay or collect remittances for goods or services. The mobile-payments space is quickly evolving, with traditional financial institutions, retailers, tech giants and small startups all getting in on the action. The result? An incredibly crowded and complex environment.

While mobile payments include both peer-to-peer and physical point-of-sale transactions, the former are more popular than the latter, especially in emerging markets. More than one-third of global respondents say they're highly likely to transfer money to (36%) and or receive money from (34%) another person using their mobile device in the next six months. In general, respondents in emerging markets are more likely to say they'll participate in peer-to-peer payments than those in developed markets. Eight of the 10 markets that exceed the global average with regard to the likelihood of transferring money to another person using a mobile device are emerging markets, and 11 of 13 countries where the likelihood of receiving money is above the global average are emerging markets.

"Emerging markets have set the pace when it comes to mobilepayment adoption and use," said Tagg. "With sizeable unbanked populations that depend heavily on cash, mobile payments fill an important gap, and they have been the focus of extensive innovation efforts in some emerging markets. In fact, it's likely that some countries will largely skip over the traditional payment models centered on bank accounts and credit cards that dominate in developed markets, and instead will rely almost exclusively on digital tools for managing and moving money."

EMERGING MARKETS LEAD THE WAY IN MOBILE PEER-TO-PEER MONEY TRANSFERS



OF GLOBAL RESPONDENTS SAY THEY ARE HIGHLY LIKELY TO **TRANSFER MONEY DIRECTLY TO ANOTHER PERSON** IN THE NEXT SIX MONTHS

COUNTRIES THAT EXCEED THE GLOBAL AVERAGE

CHINA	57%
DENMARK	57%
INDONESIA	51%
INDIA	50%
VENEZUELA	50%
SOUTH AFRICA	49%
THAILAND	48%
SWEDEN	42%
TURKEY	41%
CHILE	40%

<< 34%

OF GLOBAL RESPONDENTS SAY THEY ARE HIGHLY LIKELY TO **RECIEVE MONEY DIRECTLY FROM ANOTHER PERSON** IN THE NEXT SIX MONTHS

COUNTRIES THAT EXCEED THE GLOBAL AVERAGE

DENMARK	
DENMARK	56%
INDONESIA	54%
INDIA	51%
SOUTH AFRICA	49%
VENEZUELA	48%
THAILAND	47%
CHINA	46%
CHILE	43%
TURKEY	41%
SWEDEN	40%
VIETNAM	38%
PHILIPPINES	37%
BRAZIL	36%



Only 28% of global respondents are highly likely to use mobile payments in bars, restaurants or retail stores (mobile proximity payments). India (46%) and China (45%) are the only markets where the likelihood of using mobile payments in stores exceeds the global average. In India, the use of mobile payments is driven by a several factors, including a technologically-savvy population, high mobile penetration, a proliferation of affordable devices and comparatively inexpenisve internet access. In China, mobile proximity payments are extremely common in large cities. Consumers can pay with their mobile WeChat account by scanning QR (quickresponse) codes, which are accepted by a wide range of merchants, from upmarket restaurants to hawkers on the street and even transportation services.

In some of the world's most technologically advanced and progressive economies, however, the likelihood that consumers will use mobile proximity payments is fairly low. For example, only 15% of respondents in Korea, 11% in Japan and 10% in Hong Kong say they're highly likely to use mobile payments in a store in the next six months. Why is adoption so low in these markets? In part, it's because of the popularity of alternative payment tools. In Hong Kong, one such example is Octopus, a reusable pay-as-you-go card for retail shops and transportation. In addition, contactless debit or credit cards that use near-field communication (NFC) are popular in some markets.

"Consumers are more likely to migrate first to contactless cards and take a wait-and-see approach to newly introduced mobile-payment channels such as Apple Pay (which only became available in the past six months in Hong Kong and the U.K.), particularly because contactless readers, while widespread, are not universal, meaning most people will still need to carry a physical card in case their mobile device is not compatible with readers," said Tagg.

MOBILE-PAYMENT ACTIVITIES BY REGION

RECEIVE MONEY FROM TRANSFER MONEY DIRECTLY TO ANOTHER PERSON ANOTHER PERSON ASIA-PACIFIC 16% 48% 43% 39% 18% 50% 29% 21% EUROPE 20% 29% 51% AFRICA/ 37% 33% 38% 27% 30% MIDDLE EAST N_G LATIN AMERICA 42% 28% 32% 35% 57% 19% NORTH AMERICA 20% 55% - HIGHLY LIKELY -SOMEWHAT LIKELY -— NOT LIKELY – USE A MOBILE APP TO USE MOBILE PAYMENTS IN BARS, \$ MAKE A PURCHASE **RESTAURANTS, RETAIL STORES** 11% 58% 37% 38% 25% ASIA-PACIFIC 45% 23% 64% 32% 13% EUROPE AFRICA/ 19% 51% 34% 28% MIDDLE EAST 29% 52% 37% 18% LATIN AMERICA 37% 34% 19% 53% NORTH AMERICA – HIGHLY LIKELY – – SOMEWHAT LIKELY —

— NOT LIKELY —

LIKELIHOOD OF PARTICIPATING IN ACTIVITY IN THE NEXT SIX MONTHS

Note: Figures may not equal 100% due to rounding



When it comes to using mobile devices to make payments, there is a large generation gap. More than four in 10 Millennials worldwide say they're highly likely to transfer money to (45%) or receive money from (44%) another person via mobile in the next six months, while less than one-fifth of Baby Boomers are highly likely to do so (18% and 16%, respectively). Moreover, more than one-third of Millennials (35%) say they're highly likely to use mobile payments in stores or in bars and restaurants, roughly three times the number of Boomers and Silent Generation respondents that are likely to do so (13% and 11%, respectively).

MOBILE-PAYMENT USE BY GENERATION



Note: Figures may not equal 100% due to rounding

Base: All respondents who say they own any mobile connected device(s) Source: The Nielsen Mobile Shopping, Banking and Payment Survey Q1, 2016

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SAFETY, SPEED AND SAVINGS DEFINE THF PAT PAYMENT

As was the case for mobile banking, the primary reasons respondents are unlikely to use mobile payments are security (53%) and a perceived lack of need (33%). Given the availability of contactless cards in many markets, consumers may not even be aware of whether retailers have adopted mobile-payment technology, because they see little reason to change their purchasing habits.

MOBILE-PAYMENT BARRIERS

MOBILE-PAYMENT ACTIVITIES IN THE NEXT SIX MONTHS 🛑 ASIA-PACIFIC 🛛 🛑 EUROPE 🛑 AFRICA/MIDDLE EAST 🛑 LATIN AMERICA 🛑 NORTH AMERICA 58% 58% 48% 50% 47% 38% 36% 32% 28% ŝ I'M CONCERNED ABOUT I DO NOT HAVE A NEED FOR MOBILE PAYMENTS SECURITY 4% 15% 4% 3% 1% 3 8% ŝ 2% **MY DEVICE SCREEN IS RETAILERS I VISIT DO NOT** TOO SMALL ACCEPT MOBILE PAYMENTS

TOP REASONS RESPONDENTS ARE NOT LIKELY TO PARTICIPATE IN

Base: All respondents who said they were not likely to conduct mobile payment activities in the next six months Source: The Nielsen Mobile Shopping, Banking and Payment Survey Q1, 2016

So how can retailers and financial services providers encourage greater adoption and use of mobile-payment systems? Enhancing security seems common sense, but building trust is a critical first step in encouraging wider adoption. Fifty-six percent of global respondents say enhanced security features would encourage them to make a mobile payment or make more mobile payments.

Retailers must also find ways to add value to the mobile-payment experience and give consumers a reason to change ingrained behaviors. More than four in 10 say they'd try mobile payments or use them more if they received mobile-exclusive incentives, loyalty perks or rewards (44%) or if checking out was faster than with traditional methods (44%). Currently, contactless card payments are faster than mobile in many markets, because they require fewer clicks; consumers just hold their card next to the reader and don't need to authorize the transaction. Consequently, developing ways to speed up the mobile-payment process will be critical in driving adoption.

Around the world, South Africa has the highest percentage of respondents who say mobile-exclusive rewards would encourage them to try a mobile payment or use mobile payments more frequently (65%). Rounding out the top five are four Asian markets: the Philippines (63%), India (60%), Singapore (58%) and Malaysia (55%). Similarly, when it comes to speedier checkout for mobile payment users, four of the top five markets with the strongest level of agreement are in Asia. Indonesia, Thailand and Vietnam lead the way (65% each), followed by Venezuela (59%) and China (52%). China in particular is uniquely positioned to deliver unparalleled speed and ease via mobile device. Some stores there will let consumers scan a QR code, pay via WePay and receive same-day delivery to their home. Most mature markets simply don't have the supply chain infrastructure to deliver this kind of benefit. Therefore, additional value is not derived from connected mobile communication and payment systems.

Mobile-payment systems give retailers and financial services firms the opportunity to collect more data about consumer purchases and provide more relevant offers based on this information. But while the ability to offer greater personalization is one of the most enticing benefits of mobile payments for brands, its influence on consumers appears to be somewhat limited. Only one-third of global respondents (32%) say the ability to receive more relevant offers and ads would encourage them to make a mobile payment or make more mobile payments. Tailored ads and offers are more compelling in China (52%), India (48%), Vietnam (43%) and Egypt (40%) than they are globally.

Mobile payments face a steeper climb in mature markets. One-fifth of respondents in North America (22%) and Europe (20%) say no incentive could motivate them to try or increase their use of mobile payments, compared with 9% in Africa/Middle East, 8% in Latin America and 4% in Asia-Pacific. Roughly one-third of respondents in the U.K. (33%), Denmark (32%), Estonia (32%), Finland (32%), Australia (32%) and New Zealand (30%), and more than one-fifth in Canada (24%) and the U.S. (21%) say no incentive could motivate them to try mobile payments or increase their use.

INCENTIVES TO ENCOURAGE MOBILE-PAYMENT USE

PERCENTAGE WHO SAY INCENTIVE WOULD ENCOURAGE THEM TO USE MOBILE PAYMENTS OR INCREASE NUMBER OF MOBILE PAYMENTS THEY MAKE



"In developed markets, the tangible benefits of using mobile payments over another kind of system aren't clear to many consumers," said Tagg. "There is no point of uniqueness or difference other than use of your mobile phone rather than a card. In developing markets, the infrastructures are more flexible and there is more cross-platform integration (think Alipay and Alibaba or WeChat and WePay, which deliver enhanced benefits through the use of integrated technology). This is missing in developed markets, where the tech has been divergent or hasn't been closed-loop."

Not surprisingly, mobile payments also face a steeper climb among mature consumers. Enhanced security features are the most influential improvement or incentive among respondents of all ages. Younger respondents, however, are more responsive to mobile-exclusive rewards (49% of Millennials versus 33% of Baby Boomers), speedier checkout (48% versus 33%) and personalized ads and offers (38% versus 16%).

STRATEGY FOR MOBILE-PAYMENTS SUCCESS

Identify and emphasize the value-add. Better connectivity and delivery of tangible benefits throughout the payment and purchase process will drive greater usage. Mobile payments may accelerate in the U.S., where cards with chip-and-sign technology (which use an embedded security chip and require users to sign for their purchases) actually delay the purchase process and may push consumers to use mobile payments. However, in markets such as Hong Kong and the U.K., where contactless payments powered by NFC chips already speed up the purchasing process, there will need to be a more meaningful reason to incorporate mobile payments into consumers' daily routines.

Two potential models for driving adoption have emerged: integrated banking, similar to what has occurred in Sweden, and a tech-driven approach, similar to what has occurred in China, in which tech companies provide the means for seamless purchase transactions and transfers.

MOBILE-PAYMENTS INCENTIVES BY GENERATION

PERCENTAGE WHO SAY INCENTIVES WOULD ENCOURAGE THEM TO USE MOBILE PAYMENTS OR INCREASE THE NUMBER OF MOBILE PAYMENTS THEY MAKE

ENHANCED SECURITY FEATURES

INCENTIVES/LOYALTY/REWARDS AVAILABLE ONLY TO MOBILE-PAYMENT USERS

SPEEDIER CHECKOUT COMPARED TO TRADITIONAL PAYMENT METHODS

THE ABILITY TO RECEIVE MORE RELEVANT OFFERS AND ADS

NONE OF THESE INCENTIVES WOULD MOTIVATE ME TO TRY MOBILE PAYMENTS OR INCREASE MY USE



COUNTRIES IN THE GLOBAL SURVEY

ASIA-PACIFIC

MARKET	INTERNET PENETRATION
Australia	93%
China	52%
Hong Kong	80%
India	37%
Indonesia	34%
Japan	91%
Malaysia	68%
New Zealand	94%
Philippines	53%
Singapore	81%
South Korea	92%
Taiwan	84%
Thailand	60%
Vietnam	52%

LATIN AMERICA

MARKET	INTERNET PENETRATION
Argentina	79%
Brazil	68%
Chile	80%
Colombia	59%
Mexico	56%
Peru	59%
Venezuela	62%

EUROPE

MARKET	INTERNET PENETRATION
Austria	83%
Belarus	59%
Belgium	85%
Bulgaria	57%
Croatia	75%
Czech Republic	80%
Denmark	96%
Estonia	84%
Finland	94%
France	84%
Germany	88%
Greece	63%
Hungary	76%
Ireland	83%
Israel	73%
Italy	62%
Kazakhstan	54%
Latvia	82%
Lithuania	82%
Netherlands	96%
Norway	96%
Poland	68%
Portugal	68%
Romania	56%
Russia	71%
Serbia	66%
Slovakia	83%
Slovenia	73%
Spain	77%
Sweden	95%
Switzerland	87%
Turkey	60%
United Kingdom	92%
Ukraine	43%

AFRICA/MIDDLE EAST

MARKET	INTERNET PENETRATION
Egypt	37%
Morocco	61%
Pakistan	18%
Saudi Arabia	65%
South Africa	49%
United Arab Emirates	92%

NORTH AMERICA

MARKET	INTERNET PENETRATION
Canada	93%
United States	87%

Source: Miniwatts Marketing, *Internet World Stats*, Jun. 30, 2016 (Europe is updated through Nov. 30, 2015), www.internetworldstats.com

ABOUT THE NIELSEN GLOBAL SURVEY

The Nielsen Mobile Shopping, Banking and Payment Survey was conducted March 1–23, 2016, and polled online consumers in 63 countries throughout Asia-Pacific, Europe, Latin America, the Middle East/Africa and North America. The sample for both surveys includes internet users who agreed to participate in this survey and has quotas based on age and sex for each country. It is weighted to be representative of internet consumers by country. Because the sample is based on those who agreed to participate, no estimates of theoretical sampling error can be calculated. However, a probability sample of equivalent size would have a margin of error of $\pm 0.6\%$ at the global level. This Nielsen survey is based only on the behavior of respondents with online access. Internet penetration rates vary by country. Nielsen uses a minimum reporting standard of 60% internet penetration or an online population of 10 million for survey inclusion.

ABOUT NIELSEN

Nielsen Holdings plc (NYSE: NLSN) is a global performance management company that provides a comprehensive understanding of what consumers watch and buy. Nielsen's Watch segment provides media and advertising clients with Total Audience measurement services for all devices on which content — video, audio and text — is consumed. The Buy segment offers consumer packaged goods manufacturers and retailers the industry's only global view of retail performance measurement. By integrating information from its Watch and Buy segments and other data sources, Nielsen also provides its clients with analytics that help improve performance. Nielsen, an S&P 500 company, has operations in over 100 countries, covering more than 90% of the world's population.

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