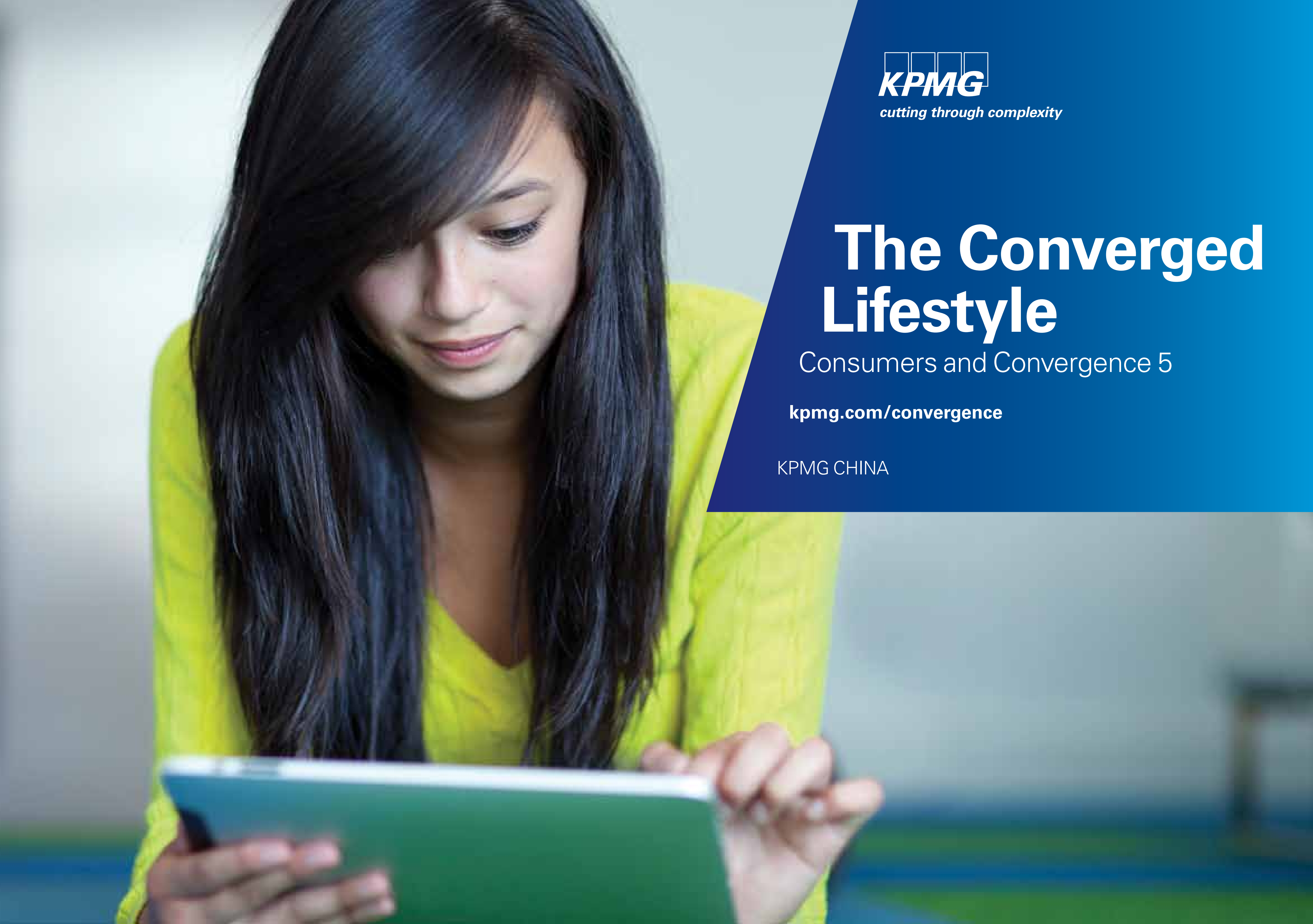

KPMG

cutting through complexity

The Converged Lifestyle

Consumers and Convergence 5

kpmg.com/convergence

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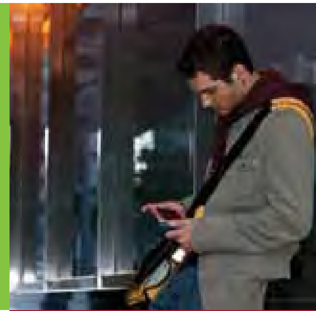

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Introduction

Convergence is not new – but the way consumers interact with technology is constantly changing. We believe we are in a new phase of convergence: the converged lifestyle. Get ready for some fast technology and even faster consumer adoption.

Ever since our first Consumers and Convergence study in 2006, we have been polling consumers in key markets around the world to find out what devices, technologies and services they are using and how they are using them.

Not surprisingly, we've seen a lot of change in just 5 years. In 2006, our questions focused on the use of landlines, mobile texting, instant messaging and internet browsing: smartphones were not widely adopted by consumers, and tablets did not exist. Social media was still in its infancy.

Today, consumers are talking about how technology enables their lifestyle. From buying goods online to keeping up with friends on social networks, consumers seem to be more and more reliant on a range of technologies that perform important – although often overlapping – tasks.

Our survey demonstrates that convergence is alive and well in 2011. Sure, consumers are now faced with a bewildering array of devices. But they all seem to increasingly serve one purpose: to enable consumers to get what they want, when they want it.

The speed of consumer adoption also seems to be on the rise. In just 7 years, Facebook signed up more than 800 million active users; and in just 14 months Apple sold more than 25 million iPad® tablets. But with rapid adoption comes rapid change: business models are quickly evolving for a range of businesses including advertisers, retailers, content providers, mobile operators and banks.

Many traditional businesses are facing significant challenges adapting to this new world. The banking industry, for example, was somewhat slow to adopt online payments and – as a result – lost their share of this growing market to companies such as PayPal™. What's more, banks are now seen as being somewhat 'new' entrants into the online and mobile markets, and will need to reassert their security and privacy leadership in order to build trust with consumers online.

And while businesses will need to evolve to meet the changing demands of consumers, so too will regulators. New business models often spin off supportive ecosystems and upstart competitors that are important to the continued vitality of the technology industry. Regulators must ensure that the rules promote privacy while still providing the flexibility for companies to innovate.

Our survey also highlights some key considerations that seem to drive consumer purchasing decisions. For one, there is a growing level of consumer concern regarding privacy and security, particularly when using new services or technologies. Indeed, the virtue of 'trust' may soon become one of the biggest competitive advantages for products and services across almost all industry groups.

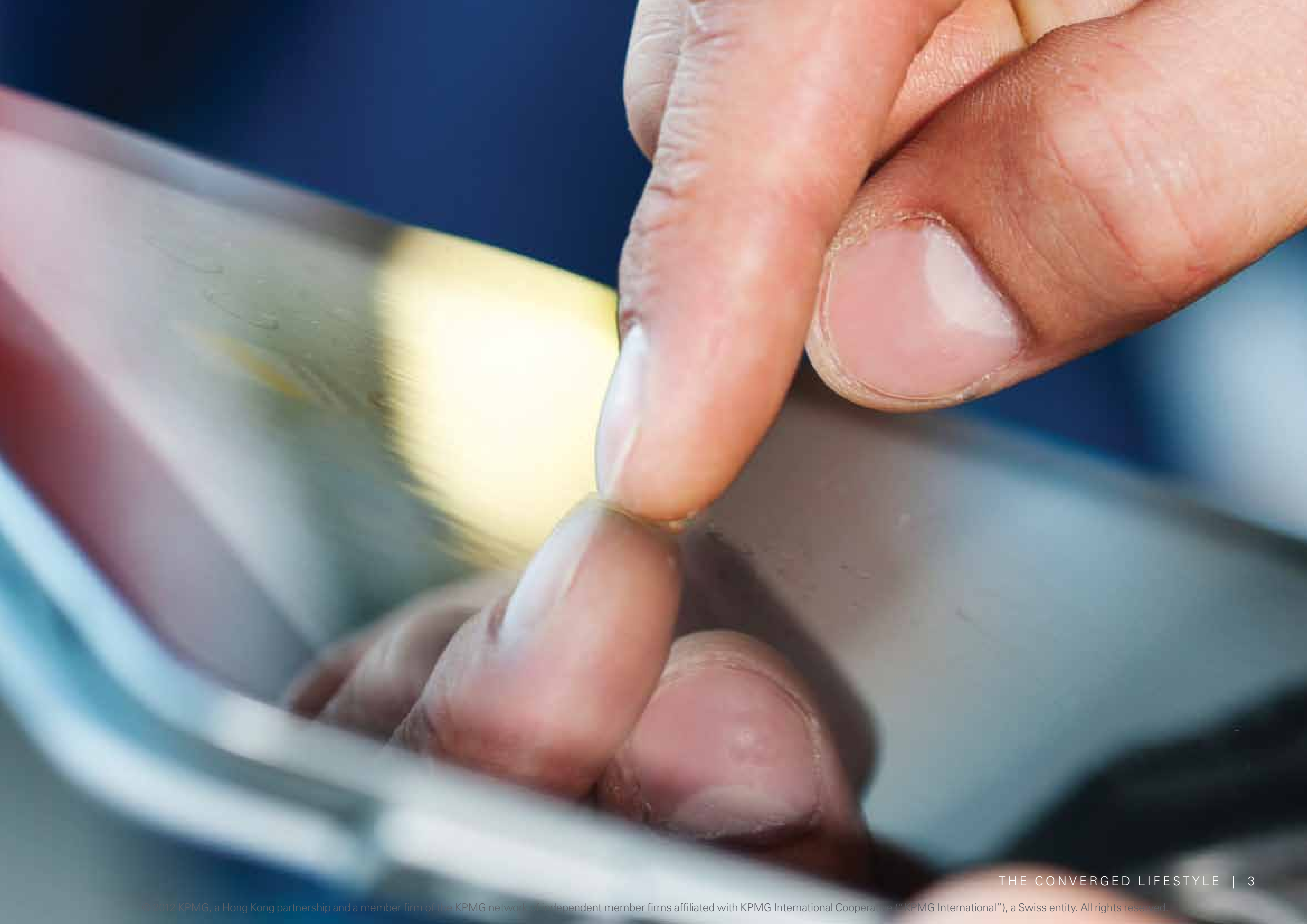
But the results also show that consumers are fixated on price, with many saying that it trumps all other considerations when selecting mobile operators, television options and internet service providers.

We believe these findings and the accompanying analysis demonstrates a continuing – but accelerated – trend towards greater integration of devices within the consumer lifestyle and a rapid evolution of business models for those that enable them.

We encourage you to contact your local KPMG member firm to discuss the implications of these trends on your business.

Sean Collins
Global Chair,
Telecommunications
& Media

Mark Larson
Global Chair, Retail



The enabling landline

While some pundits may believe that the traditional landline telephone is a thing of the past, our data shows that consumers are still committed to maintaining their landline connections. Globally, more than 80 percent of respondents indicated that they have a landline, with the highest concentration found in Asia Pacific (83 percent) and the lowest (76 percent) in Europe, the Middle East and Africa (EMEA).

That being said, global rates did fall slightly overall (4 percent) from last year indicating the changing use of landlines in many regions. For example, 52 percent of respondents reported that they maintained their landline as a means of accessing the internet, while more than 10 percent also saw their landline as a channel for new services such as IPTV.

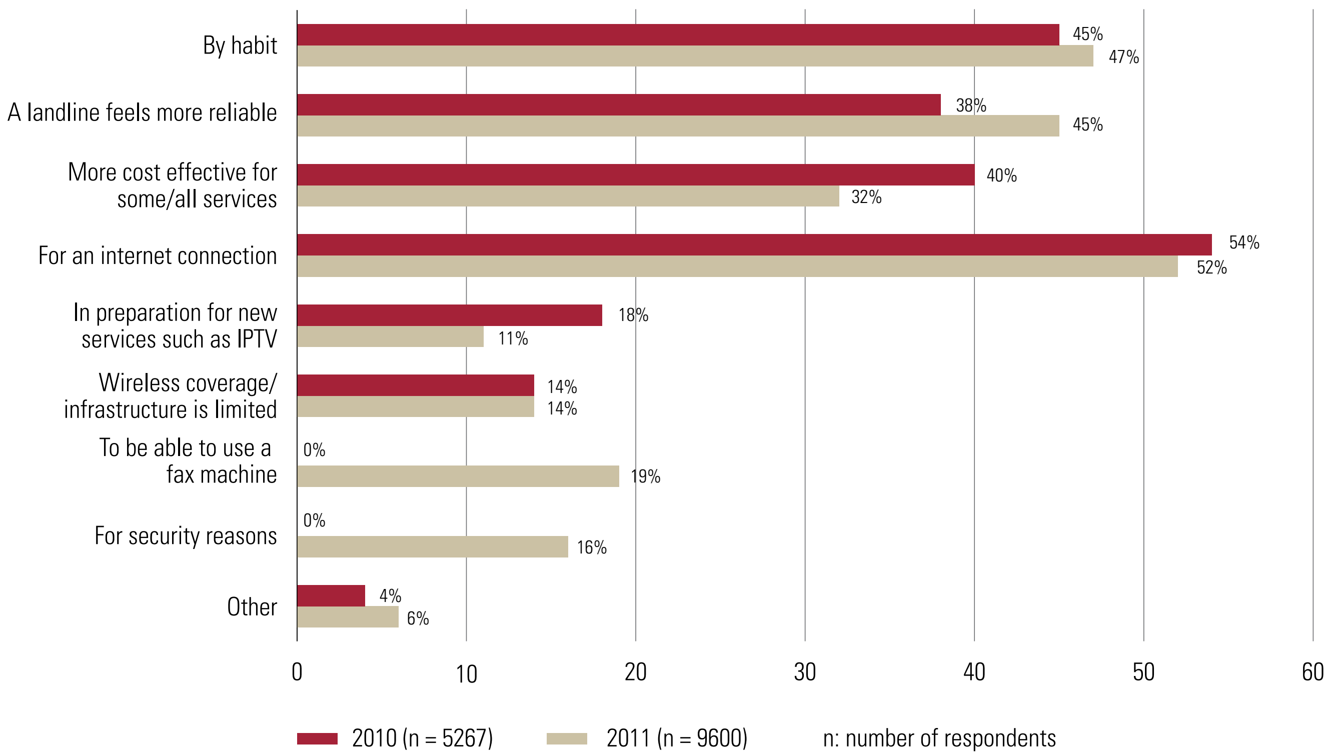
KEY FINDINGS

- **Over the past 12 months, around 4 percent of respondents seem to have eliminated their landlines but more than 80 percent still believe their landline is important.**
- **Although half (52 percent) of consumers maintain their landline for an internet connection, and just less than half (47 percent) maintain one out of habit.**
- **Almost a quarter of all respondents from Europe, the Middle East and Africa have no landline at all, versus 17 percent in Asia Pacific and 22 percent in the Americas.**

Many respondents also seem to hang on to their landline for reasons of comfort: 47 percent said that they kept their landline out of habit, and 45 percent said a landline felt more reliable. This may represent a massive opportunity for operators that can leverage this 'stickiness' to launch additional services over landlines that drive new revenue streams and models.

Our data also found that the propensity to maintain a landline depended on the age of the consumer. Only 72 percent of people aged 16-24 report having a landline, versus about 88 percent of those over 45 years of age.

Reason for landline connection



Source: KPMG Consumers and Convergence 5, 2011
Note: Respondents could select more than one option.

> "The rate of decline of fixed-line telecommunications services is slower than many expected," says **Malcolm Alder**, a Partner with KPMG in Australia. "But a business case based on habit and the need for internet connection is clearly not a long-term strategy."

> "Landlines clearly continue to be relevant for traditional reasons such as reliability and security," says **Carl Geppert,** Global Telecommunications & Media Advisory Lead. "But they are also commonly seen as the catalyst to new broadband-based services such as IPTV and streamed video services."

The device divide

Rumors of the personal computer's demise have been greatly exaggerated. Indeed, the PC still dominates over all other devices: 88 percent of consumers are most likely to conduct their online shopping on a PC, 86 percent use their PC for internet browsing, and 84 percent use their PC for email.

Yet although these numbers indicate a continued vitality of the PC, there is evidence that its foothold as a preferred device is waning. Since our first survey in 2006, 20 percent of consumers have moved away from the PC for accessing news and information, 26 percent have shifted their instant messaging (IM) or chat activities to other devices (primarily mobile) and 18 percent have forsaken the PC for social networking.

Mobile devices have clearly eaten away into the PC's domain. Almost four-in-ten consumers have used their mobile device at retail outlets to access coupons, where they previously may have downloaded and printed coupons, and one-in-five consumers have done research or comparison shopping right in-store, by using their mobile device to scan barcodes.

Another significant area of growth for mobile devices, particularly due to the web browsing capability of increasingly popular smartphones, has been in accessing maps and directions. Only 4 percent of respondents to our

KEY FINDINGS

- **Eighty-six percent of consumers prefer to browse the web on a PC, versus 8 percent on a smartphone and 6 percent on a tablet.**
- **Tablets are primarily being used to read books (45 percent of tablet users), conduct social media conversations (28 percent) and watch streamed TV (26 percent).**

"Asia seems set to leapfrog the rest of the world when it comes to the use of new technologies," comments **Egidio Zarrella,** a partner with KPMG in China's Clients and Innovation Practice. "This Asian-led revolution will have a dramatic impact on the global market and will largely influence the future design and sales of new technology products."

What is your preferred device when conducting each of the following activities?

Device	Personal Computer				Mobile Phone / Smartphone				Tablet				Other Device			
Activity	**'07**	**'08**	**'10**	**'11**	**'07**	**'08**	**'10**	**'11**	**'07**	**'08**	**'10**	**'11**	**'07**	**'08**	**'10**	**'11**
Accessing maps/directions	-	89%	75%	68%	-	4%	23%	25%				5%	-	7%	2%	2%
Accessing news and information	96%	95%	83%	76%	1%	2%	13%	14%				5%	2%	2%	4%	5%
Banking/personal finance (mortgage, stocks, etc.)	-	96%	85%	84%	-	2%	14%	10%				5%	-	1%	1%	2%
Browsing the web/internet	-	-	93%	86%	-	-	6%	8%				6%	-	-	1%	1%
Chatting or instant messaging	93%	94%	70%	67%	6%	5%	29%	27%				5%	1%	1%	1%	1%
Emailing	-	-	89%	84%	-	-	10%	11%				5%	-	-	1%	1%
Education/training/webinars	-	-	-	85%	-	-	-	8%				6%	-	-	-	1%
Playing games	72%	68%	77%	72%	6%	7%	17%	19%				6%	22%	25%	6%	2%
Reading a book	-	-	63%	62%	-	-	21%	15%	*Option not available			15%	-	-	16%	8%
Online shopping	98%	97%	90%	88%	1%	2%	5%	7%				4%	1%	1%	5%	1%
Researching products/services	-	-	-	86%	-	-	-	8%				5%	-	-	-	1%
Social networking (Facebook, MySpace, Twitter, YouTube, etc.)	94%	96%	88%	76%	3%	1%	11%	16%				7%	3%	3%	1%	1%
Accessing web-based services such as Spotify, Gmail, Amazon music	-	-	-	79%	-	-	-	13%				7%	-	-	-	1%
Voice conversations	15%	8%	70%	64%	57%	67%	29%	29%				6%	28%	25%	1%	2%
Watching TV programs/movies (streaming)	58%	63%	77%	76%	7%	5%	5%	5%				8%	35%	31%	18%	11%
Communications – SMS	19%	13%	-	-	78%	82%	-	-				-	2%	5%	-	-
Others	-	-	79%	73%	-	-	9%	19%				4%	-	-	11%	4%

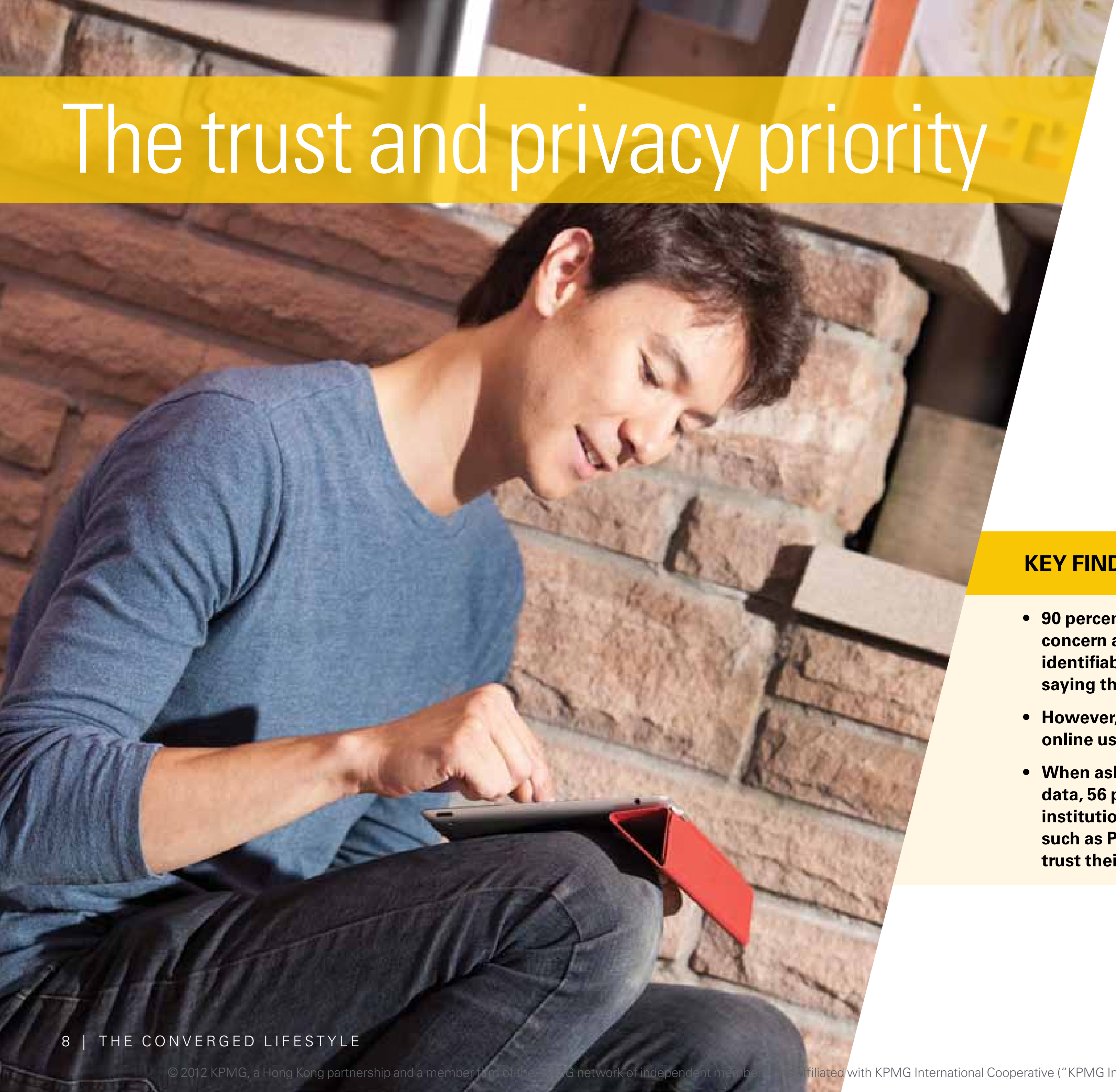
Note: not all attributes were asked in 2007, 2008 and 2010.

survey in 2008 had accessed maps on their mobile device versus 25 percent today. Mobile has also started to make headway into the games segment with almost one-in-five respondents using their mobile for games and entertainment.

Since the launch of the first Apple iPad® in April 2010, tablets have also captured the minds of consumers. In the 18 months between the introduction of tablets onto the market and the time of our survey, 15 percent of consumers were reading books using these new devices. Somewhat surprisingly, 6 percent of respondents also said they prefer to use their tablets for voice communication. And while tablets have seen increasing adoption rates around the world, nowhere more so than in Asia Pacific where one-in-ten respondents said they use their tablets to watch streaming video (versus just 5 percent in other regions).

> "While the PC is clearly not dead, there is ample evidence that consumers are gravitating towards numerous devices, each with their own benefits and drawbacks," suggests **Gary Matuszak**, KPMG's Global Chair of Technology, Media and Telecommunications. "But as technology continues to improve, we will likely see the PC become relegated to business functions that run high-functioning tasks."

The trust and privacy priority



KEY FINDINGS

- **90 percent of respondents voiced some level of concern about the security of their personally identifiable information (PII) with almost half saying they were 'very concerned'.**
- **However, 62 percent are still willing to have their online usage tracked by advertisers.**
- **When asked who they trust most online with their data, 56 percent of respondents said their financial institutions, 30 percent said secure payment sites such as PayPal™, and 7 percent were most likely to trust their retailers.**

As we have seen throughout this survey, security and privacy concerns continue to be the biggest barrier to the adoption of new business models. In particular, consumers seem wary about their security and privacy when using devices and interacting with third parties. Indeed, nine-out-of-ten respondents said they were concerned about the security of their personally identifiable information (PII) and almost half said that they were 'very concerned' about the theft of their PII. This represents a significant increase in concern over 2010 when only 79 percent said the same.

In response, consumers suggested a number of approaches that organizations could take to build trust, with three-quarters of respondents saying that better disclosure of measures, brand reputation and independent audits would help to gain consumer trust.

Somewhat perplexingly, however, 62 percent of consumers also demonstrated that – under the right circumstances – they are willing to have their online usage tracked by advertisers. This is also an increase over 2010 when 58 percent of respondents signaled a similar willingness.

> "While consumers are slowly becoming accustomed to the negatives of technology such as spam and viruses, they are also keen to benefit from the convenience and immediacy that comes with mobile devices," notes **Sanjaya Krishna**, Digital Services Leader, KPMG in the US. "The company or group of companies that is able to crack the code of consumer trust in this emerging marketplace is sure to gain massive dividends from their online business."

> "Privacy and security are becoming ever more important to consumers given the rise of mobile payments and commerce," says **Carl Geppert**. "Mobile operators will want to promote their security protocols every bit as much as they do price and network quality."

Clearly, this represents a strange paradigm for consumers: increasing concern about how their PII is being used and secured is tempered by a willingness to have their online use patterns tracked and analyzed by advertisers. This indicates a significant business opportunity for organizations that are able to offer their customers greater value by collecting their personal information in order to tailor their promotions to individual consumers.

As noted earlier, 56 percent of consumers said that, when it comes to online purchases, they placed their trust in their financial institution, indicating that banks continue to be the best placed organization to win consumers' trust. At the same time, 7 percent said they trusted their retailers most and 6 percent identified their internet service providers. Interestingly, this survey also shows that consumers are very comfortable with secure payment sites such as PayPal™, which were deemed to be the most trustworthy by 30 percent of respondents to our survey.

The cloud takes shape

While many may consider cloud technology to be a rather new innovation, a significant majority of individuals (65 percent) already store some level of personal information on the internet, particularly on social networking sites, photo sharing sites and web-based email services.

In fact, it seems that cloud technology has already embedded itself into the popular psyche with almost 13 percent of 16-24 year olds saying that they were not aware of 'web-based services' versus just 5 percent of those over 65 years of age. This indicates that, while the younger generation use cloud technology on a regular basis, they do not see it as being a unique service offering but rather an embedded part of the internet infrastructure itself.

Those that do not currently use web-based, or cloud, services tended to have a number of concerns with the technology. Fifty-seven percent said they were concerned about the security of their data in the cloud and 52 percent said the same about their PII. A third of respondents also felt that they had no need for cloud services, apparently content with storing their data and information on local storage devices.

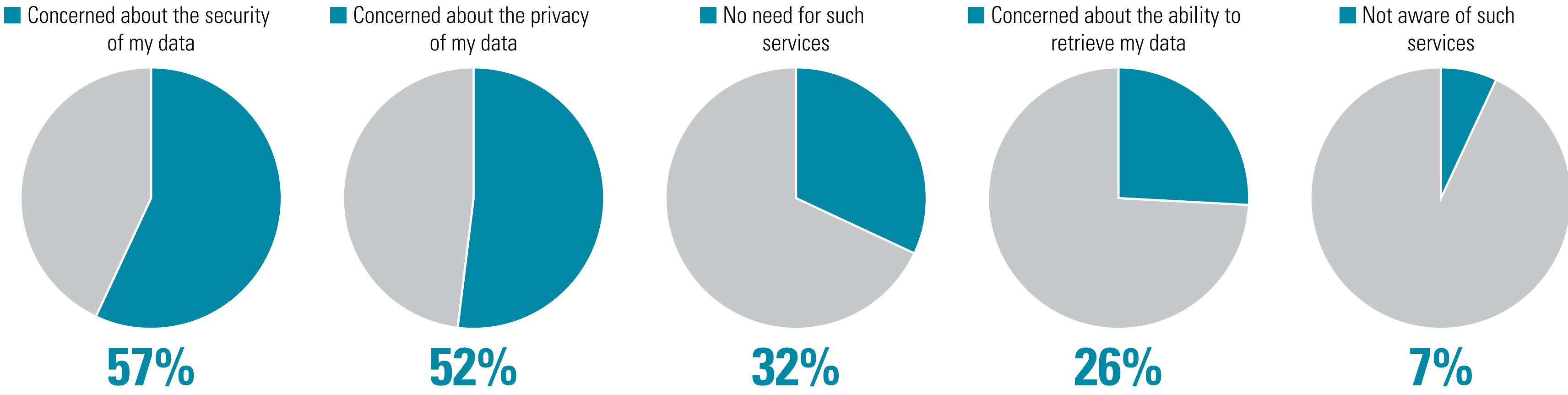
Cloud may gain significant traction as a way to enable eHealth. When asked if they would like the ability to access their personal medical information on a mobile device, nearly two-thirds of respondents said yes. However, this sentiment fell significantly in the over 65 age group, perhaps reflecting the more traditional paternalistic relationship between doctors and patients.

"Cloud has already become somewhat ubiquitous in the consumer technology environment," says **Sanjaya Krishna**. "Many consumers don't realize how often they are accessing the cloud for services like email, applications and social networking."

KEY FINDINGS

- **Sixty-five percent of consumers store some level of personal information on a remote server accessible through the internet, or 'in the cloud'.**
- **A quarter of all respondents said they were concerned about their ability to retrieve their data from online services.**
- **Nearly two-thirds of consumers suggest they would value the ability to access their medical information through a mobile device.**

Reasons for not using web-based services



n = 3325

Source: KPMG Consumers and Convergence 5, 2011

The reality of social media

It's not just hype: most people are likely to be using social networks to connect with friends, family and brands. Eighty-six percent of the consumers surveyed said that they actively engage in social networking on a regular basis - with nearly half (49 percent) of them spending at least one hour on online social networking every day.

It should come as no surprise that three-quarters of respondents prefer to access social networks from their PC, which may indicate an increased prevalence towards 'checking in' on their friends and family while at

KEY FINDINGS

- **Eighty-six percent of consumers spend time on social networking every day and more than a quarter say they dedicate more than 2 hours per day to social networking activities.**
- **PCs continue to be the primary access point for social networking with 76 percent saying they prefer to conduct these activities on a PC, versus 16 percent who prefer their mobile device.**
- **While a third of consumers admit to being influenced by 'fan pages' on social networks, almost half look to official company websites for recommendations and information.**

work or school. However, tablets have made significant inroads here: already 7 percent of consumers said they preferred to conduct their social networking activities on a tablet, versus 16 percent who gain access through their mobiles.

As a result, almost half of respondents said they have downloaded a social networking application (app) at some point in the past year; two-thirds of whom have downloaded more than one app.

However, the influence of social networking may suffer from a level of hype. Based on our survey, it seems that only about a third of respondents admit that they are influenced in their purchasing decision by 'fan pages' while almost half say that they look to company websites instead. This may merely indicate consumers' desire to see the 'technical specifications' of products, more typically found on a company's web-site rather than on 'fan pages' which are predominantly for brand-building.

> "Consumers are ahead of business by a breathtaking distance in social media," says **Malcolm Alder**, Partner with KPMG in Australia. "Too many brands are absent from the billions of hours of focused, influential time their customers spend in social media."

Integrating messages for social viewing

With consumers increasingly starting to move towards multi-screen viewing of content (where, for example, one screen is broadcasting a television show, while the other screen is being used to discuss the show on social media), content owners now have a new opportunity to amplify their messages to consumers.

Content providers are already starting to work with brands to understand the most appropriate and impactful way to capture the attention of the 'social viewer'. A growing number are looking at ways to generate additional revenue by partnering with brands to drive content and increased viewership.

> "Social media is not only about marketing, campaigns and brands", adds **Alder**. "Over time, it has the potential to help reshape the customer service cost base in many B2C sectors."

The future of commerce

For advertisers

Customer data is fast becoming the new 'gold rush'. For advertisers – and anyone else that has access to large amounts of customer data – a new business is burgeoning. According to our survey, nearly two-thirds of consumers are willing to have their online usage tracked by advertisers, up from just half when this same question was asked in 2008. But there is a caveat: consumers expect to gain some value from sharing their data, such as discounted or free content or services.

Interestingly, consumers are particular about which device they receive advertising on. Almost half of all respondents said that they were willing to receive ads on their PCs. But they were much more protective of their mobile device with just 38 percent saying they prefer ads to be distributed via this channel.

The consumers' age also makes a difference in their acceptance of advertising; more than three-quarters of respondents aged between 16 and 24 years indicated that they were willing to receive advertisements versus less than half (48 percent) of those over 65 years of age.

KEY FINDINGS

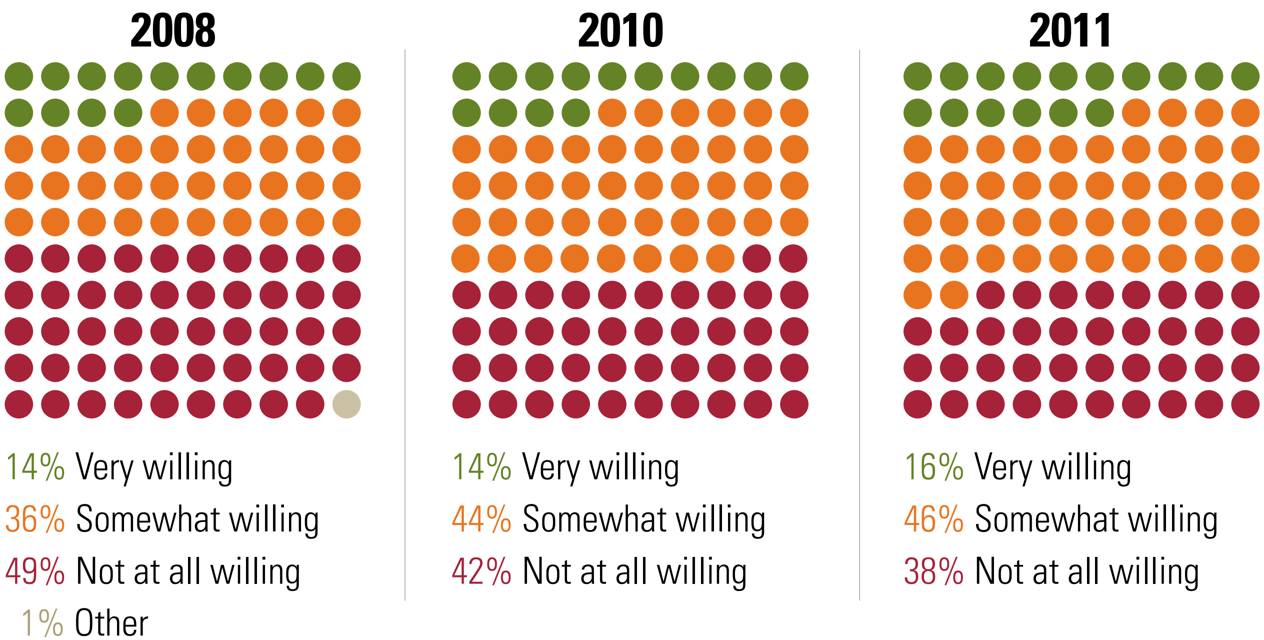
- **Almost two-thirds of consumers are willing to have their online usage tracked by advertisers, particularly when tracking provides a 'payoff'.**
- **Consumers are 10 percent more likely to accept advertisements on their personal computers or laptops than on their mobile devices.**
- **Younger consumers are twice as likely to be willing to receive advertisements as are consumers over the age of 65.**

It is worth noting that consumer acceptance of advertising overall – while still buoyant – dropped two percent over last year for both PCs and mobile devices.

As consumers show more willingness to have their online activity tracked, advertisers will start to undergo a fundamental shift from 'blast' advertising campaigns towards more personalized and value-added promotions. More importantly, it opens a new revenue stream for any company that can 'own' their customers' data and successfully monetize it in the market (see the privacy wall sidebar).

> "Those companies that can accurately track and manage their customer information are increasingly looking to monetize their data assets by sharing their findings with others," says **Tudor Aw**, Head of Technology, KPMG in the UK. "It will be interesting to see what the bigger players like Facebook and Amazon will do with the masses of customer information at their disposal."

Willingness to be tracked online in return for cheaper or free content



n = 4190 | n = 5627 | n = 9600

Source: KPMG Consumers and Convergence 5, 2011

Collecting data through "privacy walls"

With consumers increasingly willing to be tracked by advertisers, many companies are now looking for ways to collect more valuable customer data from their digital assets.

One approach is to require free registration to access content. By compelling visitors to complete a registration form, companies can collect a wealth of demographic information and preferences. Layering this information over online tracking adds exponential value to the data.

Rather than a paywall, where companies demand subscription fees or one-off payments in return for content, introducing a "privacy wall" trades a consumer's online behavior patterns and data for free or lower cost content.

Companies following this strategy must ensure that the content provided behind these "privacy walls" is compelling. Otherwise, consumers will quickly feel they are being exploited for their personal data.

The future of commerce

For retailers

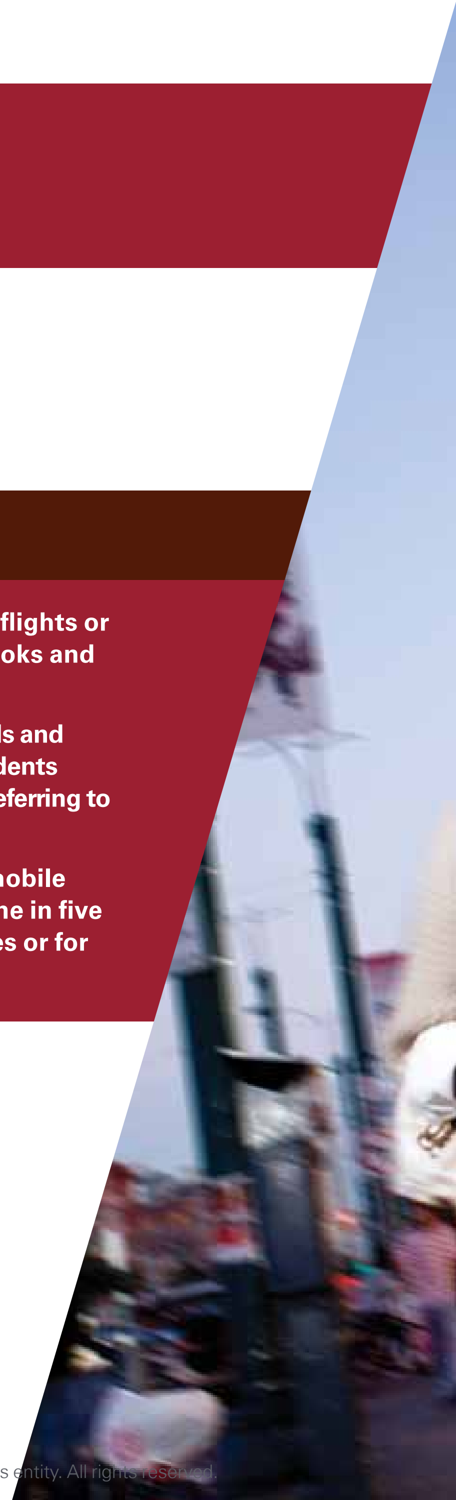
Is the weekly trip to the store about to become a thing of the past? For some retailers, the answer seems to be a resounding 'yes'. Across every category of goods, the majority of respondents said they preferred to purchase items online rather than at a physical outlet. Almost 70 percent of consumers told us that they were most likely to buy flights and vacations online and 65 percent said the same about physical CDs, DVDs, books and video games.

But this hardly spells the demise of the retail outlet, particularly for grocery and luxury goods retailers. Almost half of all respondents said they were not likely to purchase luxury goods online and four-in-ten consumers still seem to shun online grocery shopping. These trends are particularly evident in the Americas where more than three-quarters of respondents said they would book a flight online, but only 21 percent said they were likely to buy groceries without visiting the store. Clearly, consumers are more likely to want to personally evaluate the quality or authenticity of some products more than others. For these products, retailers will need to continue to offer them in stores as they strive to build consumers' confidence and trust in their online offerings.

> "The integration of the various channels is becoming increasingly important to retailers as they begin to see many of their customers move to online purchasing," says **Mark Larson**, KPMG's Global Chair of Retail."

KEY FINDINGS

- **Globally, consumers are more likely to purchase flights or vacations, electronics, or physical CDs, DVDs, books and video games online than in a store.**
- **Many consumers prefer to see and feel luxury goods and groceries before buying, with 41 percent of respondents unlikely to purchase food online, and 47 percent preferring to purchase luxury goods in person.**
- **Thirty-eight percent of respondents used their mobile device at retail outlets to access coupons, and one in five had scanned a product barcode to compare prices or for more information.**



> “The increasing use of smartphones and tablets by consumers will represent a sea-change for retailers who need to understand the opportunities and risks that mobile devices might present,” adds **Mark Larson**.”

Even within the store, the customer experience is rapidly changing. More than a third of consumers surveyed use their mobile devices to store, access and redeem coupons for in-store purchases, and retailers can expect this trend to increase. More than one in five scanned a product barcode or quick response (QR) code to obtain more information about the specific product or campaign. So while display ads and flyers are still an important part of the retail promotional mix, mobile innovations are also rapidly capturing the imagination – and attention – of consumers. Retailers are also investing more in location-based marketing, so that coupons can be sent to a consumer’s mobile device when they are in the proximity of the retailer’s store.

> “Asian consumers – led by China – are doing more of their purchasing online,” notes **Egidio Zarrella**. “Asia has also seen exponential growth in the use of mobile devices for both purchases and payments.”

The future of commerce

For content providers

KEY FINDINGS

- **Only 6 percent of consumers are willing to pay for full access to a website, a significant drop from 16 percent in 2010.**
- **Almost three-quarters of respondents currently do not pay for any of the online content that they access.**
- **If faced with a new 'pay wall', less than half of consumers say they would be willing to pay for continued access to content.**

When it comes to selling content online, consumers seem largely unwilling to pay up. Seventy-three percent said they do not pay for any content on any website they visit, and 56 percent said they would look elsewhere rather than pay for content. Of those that do pay for online content, almost half seem willing to pay for books, while 46 percent would pay for video and 44 percent for music.

Information providers, however, may face more difficulties in converting their content into revenues. Only 30 percent said they would pay for business news, while less than one-in-five indicated that they would be willing to pay for international or national news, travel information or sports news.

Interestingly, when asked why they are willing to pay for online content, 44 percent said that they ended up paying once a free trial lapsed, proving that many of the traditional techniques for gaining subscribers are valuable in the online world as well. More than half (55 percent) also said that they would pay if they believed the quality of the content was better online.

And while mobile apps seem to be a runaway success, more than six-in-ten consumers said they were more likely to pay for content on their PC or laptop and only one-in-ten said they would pay for content on a tablet. This figure may rise as tablets get more widespread in the market.

Of course, online subscribers also offer content providers with a new revenue stream in the form of customer data. In much the same way as advertisers (see pages 14/15), this rich source of data can often be collected and shared with other organizations that rely on trending and demographic data. A number of content providers are already looking at approaches for monetizing their 'digital residue' (see call out box on page 19) to drive new sources of revenue.

> “Building a strong and sustainable revenue stream continues to be the biggest challenge for most content providers,” believes **Paul Wissmann**, Head of Media, KPMG in the US. “There are a number of revenue models being tested in the market but – ultimately – it is the consumer that will decide what they are willing to pay for and when.”

Recycling digital residue

Whereas traditional data collection largely relies on ‘opt in’ tracking of customer activity, the collection of digital residue (analytic data collected on visitors to a website) often happens in the background and is rarely conducted with consent.

Clearly, this strategy opens businesses and consumers up to a range of new challenges. Time and again through this survey, consumers have indicated a significant concern about the unapproved use of their personal data. For companies, taking stewardship of the data that makes up the digital residue requires serious planning and consideration; the collection and sale of digital residue has been the subject of much media scrutiny and legislative action in recent months.

As a result, companies are exploring new approaches to collecting and using digital residue. MicroStrategy’s Gateway product, for example, gives brands direct access to consumers’ social graph on Facebook, allowing brands to personalize their pitches and conduct rich analytics on consumer preferences and trends.

The future of commerce

For mobile operators

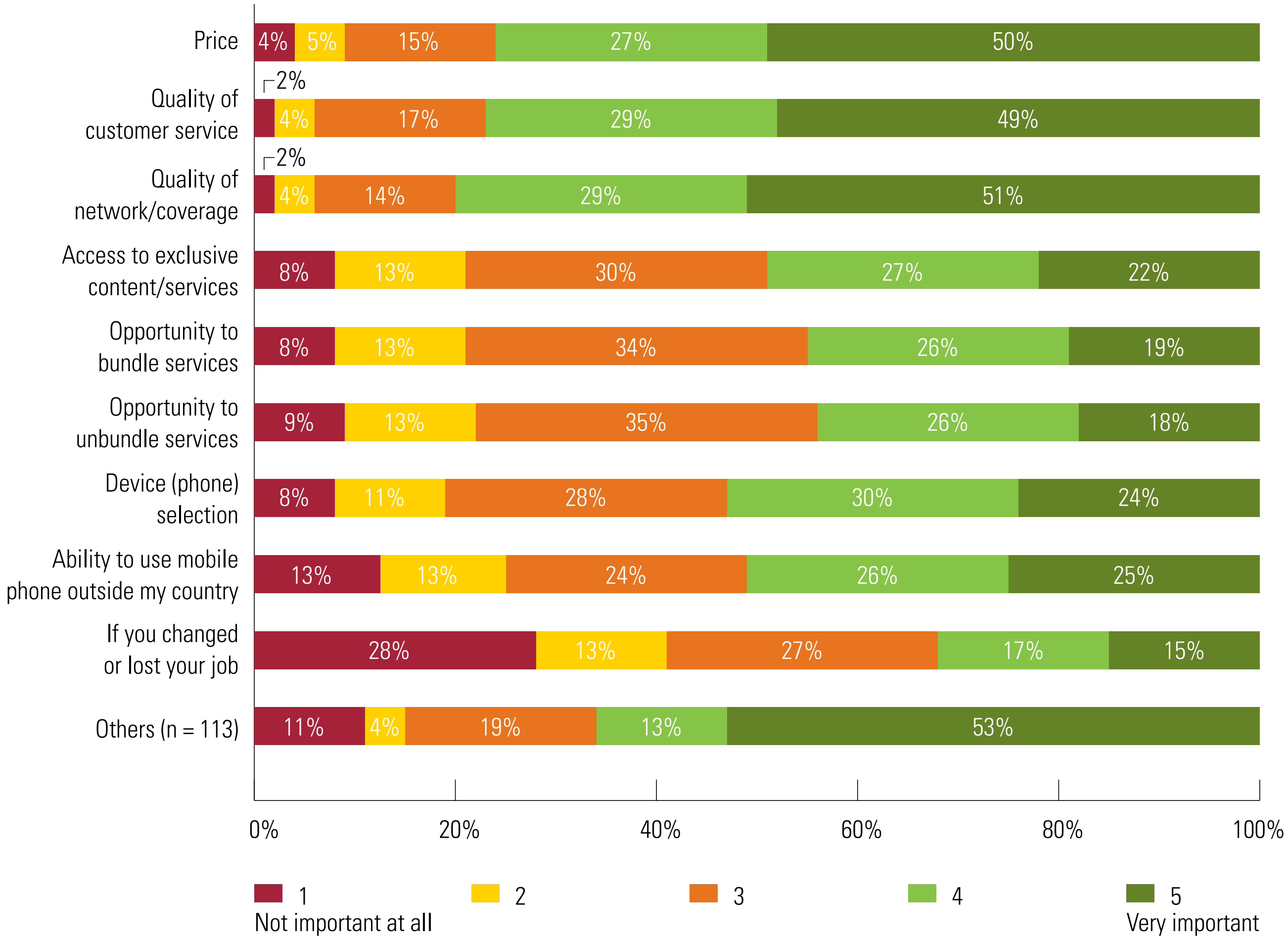
When it comes to consumer selection of mobile operators, it seems that the availability of popular devices and access to exclusive content mean less to consumers than the 'basics': coverage, service and price.

The quality of an operator's coverage (cited by 80 percent of respondents), the level of customer service (78 percent) and price (77 percent) were – almost universally – identified as the most important factors. Perhaps surprisingly, less

KEY FINDINGS

- When selecting a mobile operator, consumers were most influenced by the operator's coverage (80 percent), quality of customer service (78 percent), and price (77 percent), rather than the availability of a specific device (54 percent).
- While 88 percent of respondents reported downloading a mobile application (app) to their mobile device, 41 percent did not pay for any of them and 39 percent had paid for less than a quarter.
- Almost half of all respondents cited a very high level of concern regarding security (48 percent) and privacy (48 percent).

Factors driving consumers to change mobile service provider



*Percentages might not add up to 100 due to rounding off

Source: KPMG Consumers and Convergence 5, 2011

n = 9562

than half of all respondents suggested that the opportunity to bundle or unbundle services (45 percent) was an important factor when changing mobile service providers. For mobile businesses the message seems clear: unique content may differentiate your service, but it will not drive customer acquisition in the same way that price will.

And while many mobile service providers are using apps to drive revenue and customer retention, it seems most customers are simply not willing to pay for them. There is no doubt that consumers love apps: almost nine-in-ten report having downloaded at least one to their mobile device recently. But getting consumers to pay for the apps is anything but simple: 41 percent say they have never paid for an app (up from 36 percent in 2010) and a similar number (39 percent) say they paid for only one-in-four.

However, it is also clear from evidence in the market that – when offered the right app at the right price – consumers are willing to pay. Rovio's Angry Birds® recently surpassed the 500 million download mark.

Proving privacy credentials

The vast majority of consumers are concerned about their data getting into the wrong hands. Around 90 percent of respondents indicated that they were either somewhat or very concerned about the potential for their credit card information to be intercepted from their mobile phone and an equal number voiced some level of concern about the threat of unauthorized parties accessing their personally identifiable information when using their mobile devices.

But by developing, deploying and promoting robust security and privacy controls, organizations can instead build trust with consumers so as to encourage more sharing and allow more tailored service.

From our experience, customers tend to have greater trust for organizations that meet or exceed regulations. This might include compliance to the EU Cookie Directive, or certification against international standards like ISO27001. Regardless, mobile service providers that can prove their credentials will ultimately gain more trust from customers and – if security is tightly managed – enhance their online reputations.

"With new regulation and industry standards now coming to the fore, mobile operators will need to redefine their future business models," says **Carl Geppert**. "It is no longer a case of 'if you build it they will come'. Today it is a matter of 'if you build it **who** will come' and – more importantly – who will pay?"

The future of commerce

For banks

> "While many banks have launched mobile banking services, few are ready for the change that mobile payments will bring," says **David Sayer**, Global Head of Retail Banking at KPMG. "Banks will need to work with retailers, mobile operators and technology companies to develop a mobile payment solution to meet the growing demand of consumers."

KEY FINDINGS

- **In 2011, more than half of all respondents said they had used some form of mobile banking in the past 6 months, an increase from around 40 percent in 2010 and just under 20 percent in 2008.**
- **Thirty-eight percent were unaware that their bank provided mobile banking services.**
- **Secure payment sites such as PayPal™ are a more preferred method of online payment than credit cards for consumers in Europe and the Middle East.**

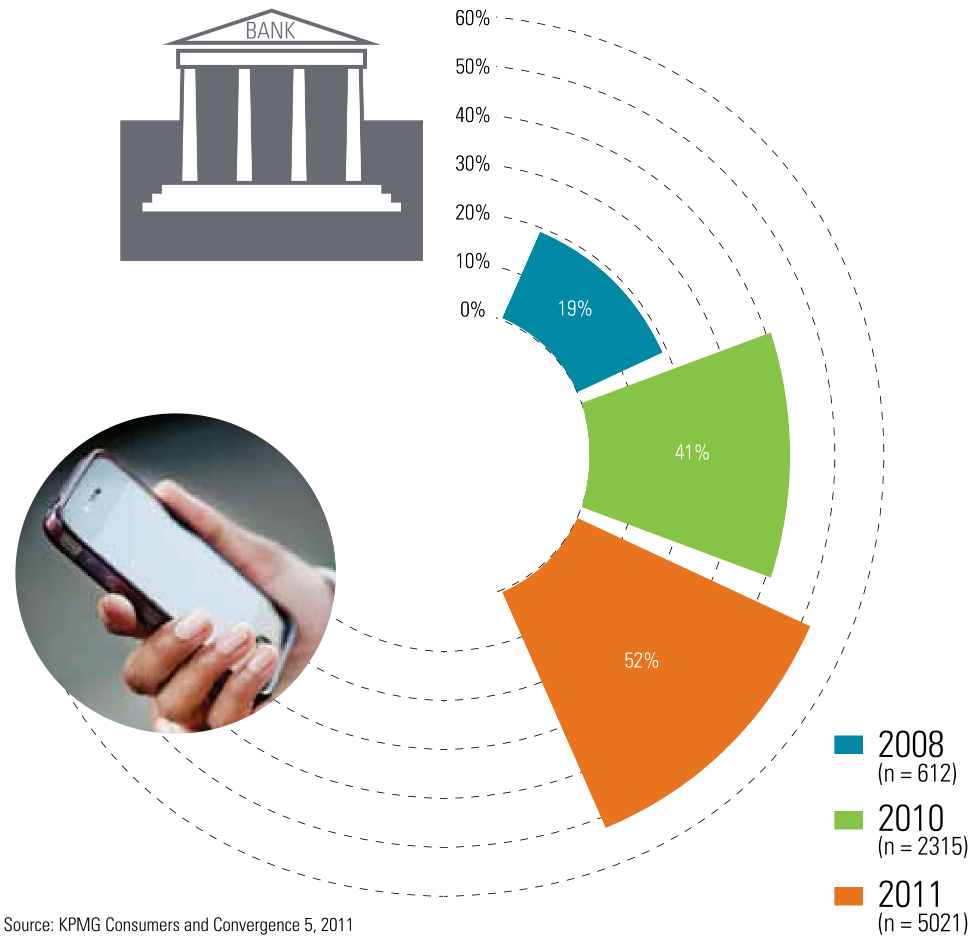
In our first Consumers and Convergence survey in 2006, the majority of respondents indicated that they did not have access to mobile banking services and – even if they did – were reluctant to utilize such a service. This has changed dramatically over the last 5 years, and now 62 percent of respondents are aware that their bank offers mobile banking services. What's more, more than half of respondents to our survey indicated that they had used mobile banking services within the past 6 months, proving that consumers are very open to using their mobile devices to conduct every-day transactions.

This is particularly true in developing world countries where vast portions of the population are 'unbanked' and have adopted mobile payments as a quick and reliable way to transfer money across geographies. In Africa, for example, Safaricom took advantage of rapid mobile adoption rates and a strong demand for safer, more convenient ways to send remittances by launching M-Pesa, a mobile payment service. By the start of 2011, M-Pesa had signed up more than 8 million customers in Kenya, equivalent to 40 percent of the adult population.

One of the biggest barriers to the broader adoption of mobile banking seems to be concerns over security and privacy. Of the respondents who had not used mobile banking, almost half (48 percent) cited this as a barrier to their own personal adoption of mobile banking. This echoes the findings of a recent KPMG survey of banking executives *(The Evolution of Mobile Payments)* where 71 percent said that security was a leading concern when developing their mobile service.

Trust also continues to be a major challenge for the financial services industry. When asked who they trust the most with their data, a majority (56 percent) of respondents identified their banks, but 30 percent said they trust secure payment sites such as PayPal™ rather than their traditional financial service provider.

Have used mobile banking in the past 6 months



Source: KPMG Consumers and Convergence 5, 2011

"Trust is a significant issue for banks as they move into the digital world," says **David Sayer**. "A growing number of banks are looking to social media to enhance their brand reputations and build stronger relationships with their customers."

Interestingly, while security and privacy was – by far – the most-often cited reason for not using mobile banking in 2010, this year's survey indicated that consumer behavior might also be impacted by device preference rather than security: more than half of those who do not use mobile banking say that they prefer to conduct their banking on their PC rather than mobile device. However, this data may also indicate that consumers might continue to pay their bills and conduct transfers on their PC, yet prefer to use their mobile devices for retail or other 'on-the-go' transactions.

One should anticipate that – in our next Consumers and Convergence report – new technologies will be introduced that will further revolutionize the banking and payments industry. Near Field Communications (NFC) capabilities – a technology that enables contactless payments through mobile devices – are widely anticipated to be embedded in future smartphone releases, and m-Wallet initiatives have already been introduced by both traditional and non-traditional players alike. Clearly, much change is still ahead for the banking industry.

Online banking becomes more secure

According to a recent study by Financial Fraud Action UK, the incidence of online banking fraud in the UK has significantly dropped in the past 2 years. Online fraud in the UK fell by 36 percent in 2010, and dropped a further 32 percent in the first half of 2011.

This shows that banks have made significant progress in combating the risks associated with online banking and – if they are able to translate these gains into the mobile world – should be well placed to tackle mobile banking fraud as well.

Of course, there is anecdotal evidence showing that part of this reduction may also be a result of the changing face of cyber-crime. Many of the more sophisticated organized crime syndicates seem to have set their sights on companies that hold large volumes of personal data and payment credentials, but do not maintain the same rigorous security of most banks.

The future of commerce

For television

> "The emergence of alternatives to television further highlights consumers' desire to access the content they want, when they want it, on their choice of devices," comments **Carl Geppert**. "This signals a significant shift in consumer behavior that may have far-reaching implications for video service providers."

KEY FINDINGS

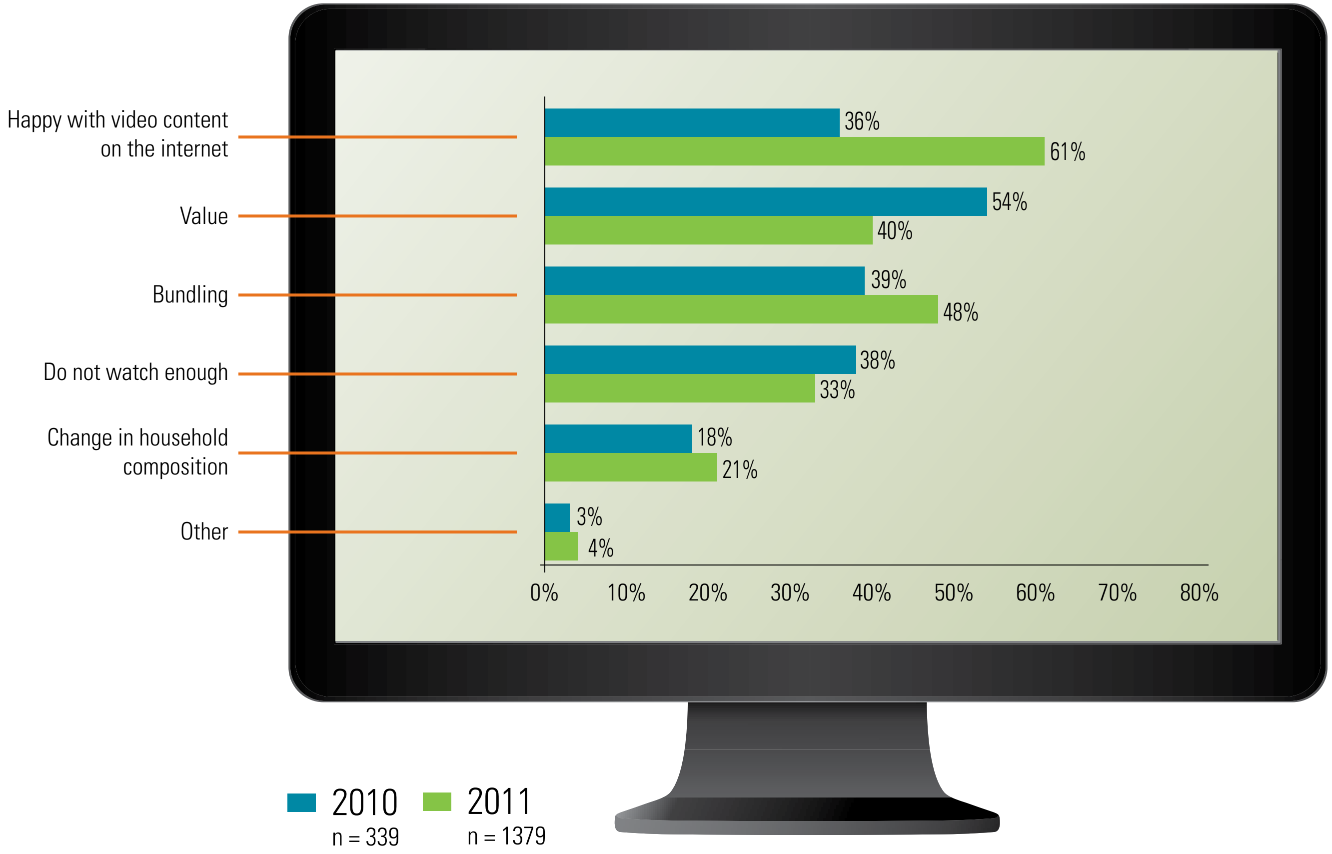
- **Sixteen percent of respondents that currently pay for television subscriptions say they will cancel their subscriptions within the next twelve months, with the most significant numbers in India and China.**
- **More than 60 percent of consumers say they are happy with the quality of the video content they receive on the internet, up from around 35 percent in 2010.**
- **Consumers are starting to see more value from their TV subscriptions, with only 40 percent citing value as a reason for discontinuing services versus more than 50 percent twelve months ago.**

A growing number of consumers seem ready to jettison their traditional television services. Already, one-in-ten respondents told us that they do not currently subscribe to a TV service at home, and 52 percent said that they already either download content online for viewing later or access their favorite television shows through internet streaming services. This represents a great opportunity for programmers that are able to deliver video to their customers across a variety of mediums and devices.

Our survey indicates that consumers are increasingly happy with the quality of online video content. In our survey in 2010, slightly more than 35 percent of respondents who were considering cutting their TV service cited the quality of internet content as the prime motivator; today, more than 60 percent say the same. Clearly, consumers have now experienced the improving quality of internet video options and – if offered the opportunity to gain greater convenience, price or quality – will likely move away from traditional television services in the future.

As a case in point, 16 percent of those who currently have TV services at home said that they planned to terminate their subscription within the next year.

Reasons for eliminating home TV subscription



Source: KPMG Consumers and Convergence 5, 2011

Pricing is clearly a driver in the move from cable subscriptions. But the survey shows that the majority of consumers may not be willing to pay for videos or programs accessed online either. Only 31 percent of respondents say they pay for videos they download for later viewing, and 41 percent pay for access to video streamed on the internet. Juxtaposed against the 84 percent that say they pay for their cable TV service, it becomes clear that driving revenues from online video will require TV companies to rethink their business models.

There is every indication that this trend will continue as seamless internet content viewing becomes a reality and content aggregation and navigation is simplified. However, pricing will also be a concern as these new business models develop. To maintain their dominance, existing providers will need to find ways to differentiate themselves, likely based on quality of content, ease of use and price.

> "With more consumers starting to watch TV through non-traditional channels, content-providers will need to rethink their business models," says **Carl Geppert**. "We will likely see much more experimentation with ad-supported models such as brand-ready content and on-air product placements."

Ten key takeaways for businesses

There should be no doubt that technology is rapidly reforming the way businesses interact with their customers. Throughout our report, we have identified trends and shifts in consumer preferences that are already changing the very fundamentals of revenue creation and generating new opportunities for businesses to expand their footprint and drive exponential growth.

At the same time, traditional business models – particularly in the music, publishing, advertising and broadcast television sectors – are fast evolving. Any business that is not already preparing for significant change will almost certainly find the next few years to be challenging, to say the least.

So how will businesses adapt to the constantly changing environment? Based on our experience and findings in this report, we have identified ten key takeaways that will be critical to businesses across every sector and geography.

> "I am astonished when I see that data privacy and security is not only the most critical issue among consumers worldwide, but that year over year those concerns increase," says **Tudor Aw**. "This is a key issue that should have been addressed by now."

1. **Privacy and trust:**
   Organizations engaging with customers over digital channels must focus on building trust and ensuring the security and privacy of their customers' personal data. Trust will soon become the most significant differentiator for online businesses.

2. **Willingness to pay:**
   Across all sectors, customers are looking for ways to reduce the cost of their technology without jeopardizing quality. From television service providers to mobile operators and ISPs, businesses will need to rethink their revenue models and price points.

3. **Impact of mobile devices:**
   From mobile coupons to location-based advertising, mobile devices offer a wealth of new opportunities to businesses. Far from simply 'optimizing' web assets for the mobile platform, businesses will need to rethink the way they interact with their customers.

4. **Value of data:**
   As customers increasingly start to expect customized services, businesses will focus more and more on identifying, capturing and analyzing customer data to gain greater insight into their preferences and demands. The challenge will be in finding the right price to both appeal to customers and achieve profitability.

5. **Owning the customer:**
   As more technologies converge, businesses are fighting to decide who 'owns' the customer (and their data). The issue is particularly fraught in the banking and retail sectors, where businesses hope to establish themselves as a conduit to a range of other services.

6. Multi-channel convergence:

Many consumer-facing businesses are putting increased focus on integrating their various channels to create a consistent and compelling brand presence across multiple mediums. Multi-screen viewing will offer new opportunities to converge messaging for businesses.

7. Mobile payments:

The introduction of mobile payments will fundamentally redraw the relationship between banks, retailers, telecom providers and device manufacturers. Adoption by retailers and banks will only increase as more customers demand the convenience of mobile payments.

8. Social media:

There is ample evidence that businesses utilizing social media to communicate with customers are building stronger, more trusting relationships. With consumer use outpacing business use, many organizations will need to play catch-up if they hope to meet the expectations of their consumers.

9. Online viewing:

The move towards viewing video content online is changing the business model not only for content providers, but also for advertisers and technology companies. Businesses operating in this arena would be wise to rethink their mix of traditional versus online offerings.

10. Meeting customer demand:

The converged lifestyle has empowered consumers who are increasingly vocal about their preferences and demands. Businesses that are able to gauge and respond to this evolving consumer relationship will ultimately build stronger relationships and gain critical trust with their customers.

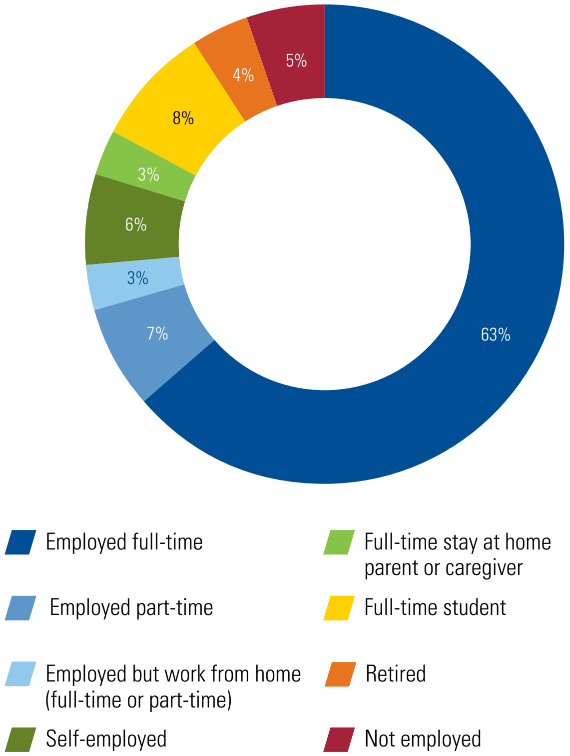
Why KPMG?

The pace of change is quickening. Emerging technologies, shifting customer demands, evolving regulations and new revenue streams are all bursting onto the business scene at an astounding speed. KPMG firms understand the complexities of change. We work closely with business leaders, government agencies and technology providers to identify and develop new approaches to business that help our clients cut through the complexity of the change around them. And with hands-on experience across multiple industries and deep insight into consumer trends, we know what it takes to thrive in this rapidly changing and highly volatile environment.

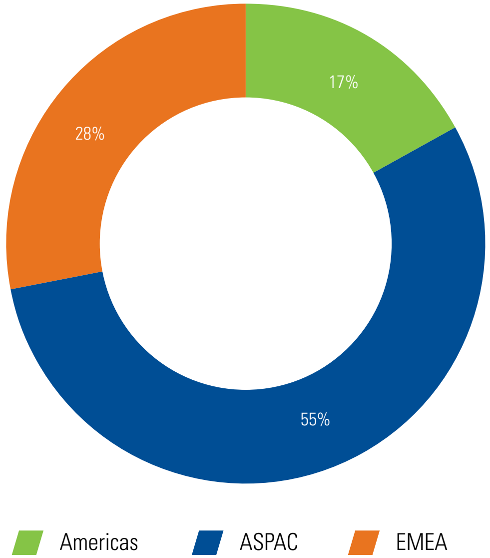
We encourage you to contact your local member firm or the authors of this study to learn more about KPMG firms' service offerings and experience.

Demographics

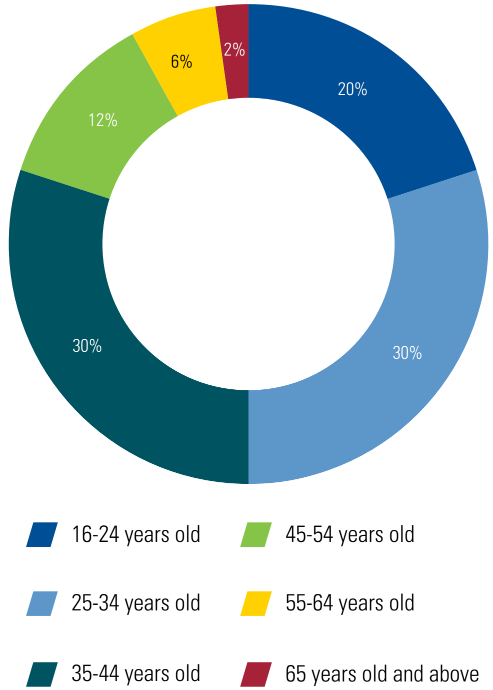
Employment status



Region



Age



n = 9600

Source: KPMG Consumers and Convergence 5, 2011

Methodology

This survey was conducted in the summer of 2011 and included 9,600 consumers across 31 countries. All surveys were conducted online, except in Nigeria and Saudi Arabia where telephone interviews were conducted. All respondents had to own either a laptop/notebook computer, tablet computer, smartphone or mobile phone. Data was weighted against mobile phone subscribers in each country to provide a more relevant population sample. Results have been compared across regions and age groups, and to prior year surveys where applicable.

Participating countries	
Australia	Ireland
Brazil	Philippines*
Canada	Poland
China	Portugal*
Czech Republic	Romania
Denmark*	Russia
Dubai*	Saudi Arabia*
France	Singapore*
Germany	South Africa
Hungary	South Korea
India	Spain
Italy*	Sweden
Japan	Switzerland*
Mexico*	UK
Netherlands	US
Nigeria*	

*markets that are new to the survey this year

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