

Digital Megatrends 2015

The Role of Technology in the New Normal Market



Preface

This overview provides a summary of the key economic and technology megatrends reshaping the global marketplace. To ensure the rigor of our research, we relied on a blend of quantitative and qualitative analysis, including:

- A global survey of 363 C-suite level executives representing over \$256bn of global turnover and covering a broad range of industries, including financial services, retail and consumer goods, manufacturing, life sciences and TICE (technology, information, communication and entertainment).
- Oxford Economics' integrated global economic and industry models to forecast trends, explore alternative scenarios and gauge economic impact. We also drew on Oxford's extensive databases containing 25-year forecasts and 30 years of historical data on 190 countries and 85 industrial sectors.
- A series of personal interviews and panel discussions (in New York, London and San Francisco) with over 25 senior executives, partners and consultants involved in digital strategy and corporate decision-making, including heads of marketing, IT, strategy, finance and operations.

We would like to thank all the executives who took part in both the survey and the qualitative research. We would also like to thank AT&T and Cisco for the use of their Telepresence suites and advanced virtual technology to host our thought leadership panel discussions.

AT&T, Cisco, Citi and SAP sponsored our research program. We are grateful for the inputs of senior staff at each of these organizations, including:

- Bennett Ruiz and Stephane Leyvraz at AT&T
- Stuart Taylor at Cisco
- Gary Greenwald at Citi
- Kevin Cox and Linda Scenna at SAP

Oxford Economics carried out the research. The results of the study are the sole responsibility of Oxford Economics and do not necessarily represent the views of the sponsors. The full white paper, which will include detailed case studies and deeper industry information, will be released in May 2011.

March 2011



oday's global economy is forcing executives, governments and consumers to adopt a new way of thinking. The financial crisis and deep recession that ended in 2010 caused a seismic shift that has reshaped the global business landscape. No longer can companies rely on credit-fuelled domestic markets for growth. Indeed, the need for households, banks and governments to regain their balance will dampen growth opportunities in many advanced economies. Instead, we are seeing the emergence of what has been called a "new normal economy" characterised by several key factors discussed below.

The US government is currently borrowing at roughly \$47,000 per second, which will push its debt to over 100% of GDP by 2015.

Sluggish growth in advanced economies

The developed world is weighed down by excessive public- and private-sector debt, and by weakened banking sectors. The US government, for example, is currently borrowing at roughly \$47,000 *per second*, which will push its debt to over 100% of GDP by 2015. And the pressures on governments in Greece and Ireland threaten the biggest sovereign debt default since the 1930s—which could even undermine the European Monetary Union.

Figure 1: The "new normal" global economy

20%

From a personal perspective, to what extent do you agree or disagree with the following trends? (% stating agree or agree strongly)

Customers have become more cost-conscious and demanding as a result of the global financial crisis

Emerging market economies will continue to grow strongly despite the impact of the global financial crisis

Economic growth rates will be lower in Western economies as a result of the global financial crisis

The global recession will hasten the shift of economic power from the West to emerging markets

The uncertain economic outlook will lead companies to be more cautious in making new investments

Government has lost touch with the challenges facing private-sector businesses

40%

60%

80%

0%

100%

"Everybody thinks they are going to grow in someone else's backyard—the developed countries think they will grow in the developing countries; the developing countries think they will grow in the developed countries."

John Sviokla, Principal, Diamond Advisory Services Advanced economies are trying to find their footing in the new normal economy as they sidestep a maze of obstacles: increased competition from emerging markets, fiscal austerity, persistently high unemployment, cash-constrained consumers, aging populations and rising commodity prices. As Bank of England Governor Mervyn King has put it: "The next decade is likely to be a sober decade—a decade of Savings, Orderly Budgets, and Equitable Rebalancing."

It is no wonder, then, that over 60% of executives surveyed believe that economic growth rates will slow in Western economies over the next five years, and that companies will be more cautious in making new investments. Worryingly, a majority of survey respondents think that government has lost touch with the challenges facing business, suggesting little confidence that politicians will be able to engineer successful new growth strategies.

Survey demographics

This global survey of 363 business executives was conducted in December 2010. Of the respondents, 19% hailed from the US, 20% from the UK, 15% from India, 14% from Japan, and 8% each from China, Brazil, Mexico and Australia. The survey represented a broad range of industries, including financial services (26%); manufacturing (19%); technology, information, communication and entertainment (18%); retailing and consumer products (15%); and life sciences and healthcare (11%). More than half (52%) of respondents worked at firms with revenues of more than \$1bn; 25% had revenues of \$500m to \$1bn; and 23% had revenues under \$500m. About 46% held c-level titles; 27% were senior vice presidents, vice presidents or directors; and 27% were heads of their business unit or department.



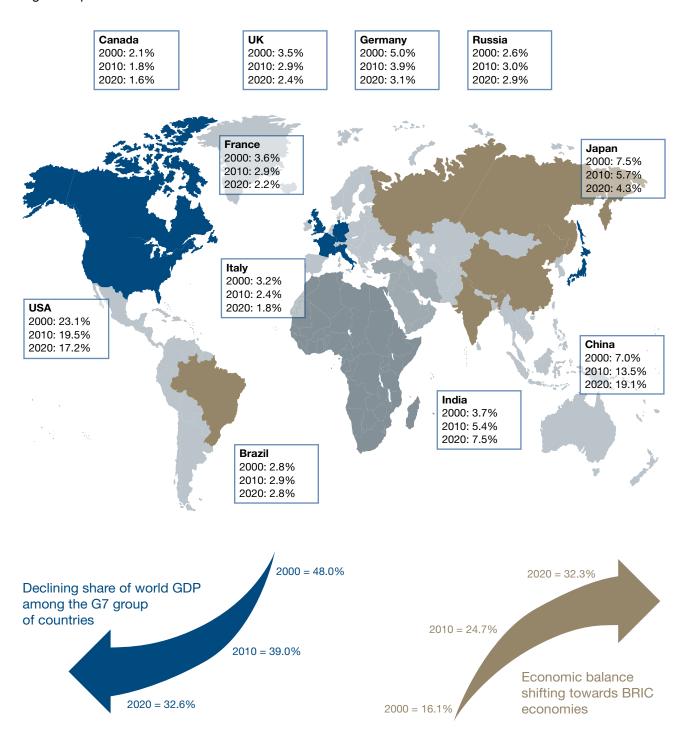
A shift in economic power to emerging markets

Largely free of the debt and banking problems that have plagued advanced economies, and cash-rich from trade surpluses, foreign exchange reserves and sovereign wealth funds, many emerging markets have become economic powerhouses. By 2015, the BRIC (Brazil, Russia, India and China) economies' share of global GDP will be 17%, nearly double what it was in 2000. And China will surpass the US to become the world's biggest economy by 2018, when measured by purchasing power parity.

Companies from the emerging world are increasingly becoming major players in global markets—the BRICs now account for 75 of the Fortune 500, compared with just 29 in 2005. And where previously emerging markets were largely recipients of foreign-direct investment (FDI), in the new normal economy they are becoming major international investors. Foreign direct investment by Chinese and Indian firms is expected to double to total \$650 billion over the next five years, as they make acquisitions to gain access to both markets and intellectual property. The new global dynamics are well expressed by John Sviokla, a principal with Diamond Advisory Services (a subsidiary of PricewaterhouseCoopers): "Everybody thinks they are going to grow in someone else's backyard—the developed countries think they will grow in the developed countries; the developing countries think they will grow in the developed countries."

Figure 2: Emerging markets take a bigger slice of the world pie

Figures represent % of world GDP.





More value-driven consumers

Consumers in advanced economies can no longer rely on credit to fund their spending, and are likely to be hit by higher taxes. Lower- and middle-income households everywhere are being squeezed by increasing prices for food, gasoline and other essentials. As a result, consumers have become more value-conscious when they shop, according to 80% of executives surveyed. This is true in both advanced and emerging markets. "In developing economies cost is important," says Nick Brown, senior vice president of strategy for the mobile applications group at SAP, "but what people really look for is value."

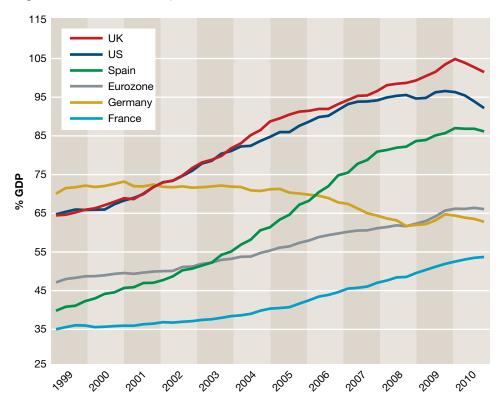
At the same time, consumers are more informed than ever before. Technology has provided customers with a wealth of data that allows them to compare prices, research products and connect with others to leverage their buying power. As Matt Gierhart, head of social strategy for Oglivy & Mather, notes: "Consumers are faced with more opportunities and more information about products. Whether it is a luxury good buyer or a cost-conscious consumer, they are spending more time in the research and investigation phase."

The value-driven consumer is a force to reckon with in both advanced and emerging markets. In fact, in emerging markets, because of lower wealth levels, consumers are often more price sensitive. Furthermore, we are witnessing the emergence of a new set of customers. "In the last five years the consumption of the very poor has increased," says Isabelle Lescent-Giles, an associate professor of international business at San Jose University. "Now we are hearing about micro-franchising, really building a whole new business model around a market of people who are the 'have-nots'."

"Consumers are faced with more opportunities and more information about products. Whether it is a luxury good buyer or a cost-conscious consumer, they are spending more time in the research and investigation phase."

Matt Gierhart, head of social strategy, Oglivy & Mather

Figure 3: Household Debt, % GDP



An era of heightened risk and uncertainty

Given the magnitude of uncertainty from these economic shifts, companies, governments and investors will remain hyper-sensitive to risk. Indeed, John Lipsky, first deputy managing director of the International Monetary Fund, recently warned that the debt burden of developed nations in 2011 will be the highest since World War II. In Mr. Lipsky's words: "The fiscal fallout of the recent crisis must be addressed before it begins to impede the recovery and create new risks." And recent events such as the political uprisings in the Middle East and North Africa, natural disasters such as the recent earthquake and tsunami in Japan, and commodity fluctuations due to greater demand among emerging markets all serve to encourage increased risk aversion, particularly in advanced economies.

Moreover, while the shift in the balance of economic power to emerging markets will help to support global growth, it will do little to reduce the risks to the business outlook. As well as macroeconomic and geopolitical uncertainty, companies face enhanced risks operating in many emerging economies as a result of inefficient bureaucracy, unpredictable changes in regulation and taxation, poor infrastructure and other local obstacles. Equally troubling, the growth of emerging economies will put further strains on the world's scarce resources and lead to supply disruptions and price volatility.

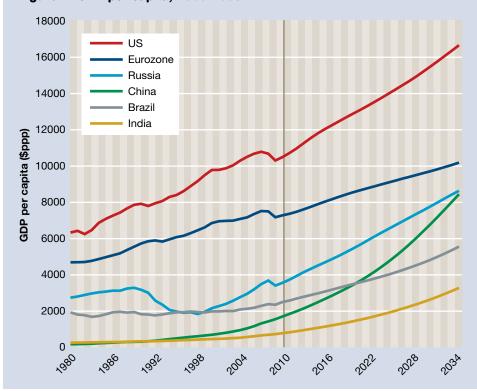
"The fiscal fallout of the recent crisis must be addressed before it begins to impede the recovery and create new risks."

John Lipsky, first deputy managing director, International Monetary Fund

Advanced economies: Still the global drivers

Economic growth in emerging markets may be growing very rapidly and China may soon overtake the US as the world's largest economy, but don't write off the advanced economies. It will take decades for average living standards in developing economies to catch up with those in the West—even in 2020, average GDP per capita (in purchasing power parity) in the US will be more than three and a half times higher than in China and Brazil, and over nine times higher than in India.

Figure 4: GDP per capita, 1980-2035



Capitalism revisited

The sweeping changes ushered in by the new normal economy mean that companies around the world must rethink their approach to business, in many cases shifting their strategies, business priorities and even their primary markets to ensure long-term growth. This, opines Mr. Sviokla, is the start of a third wave of capitalism:

- The first wave, he contends, centered on the creation of shared stock, allowing firms to grow without placing too much risk on a single person.
- The second wave, brought on by the development of the telegraph and the expansion of railroads, focused on distribution of goods and services, expanding customer reach and developing the management of supply and demand.
- In the third wave, companies must contend with new forces—the internet, explosive growth of data and globalization.

Digital technologies now form the operational foundation for virtually every market, and they are crucial to create the flexibility and speed required for success in this new environment. As Mr. Sviokla observes, "the better businesses will be those that figure out how to organize their production and people to mirror the new structure."

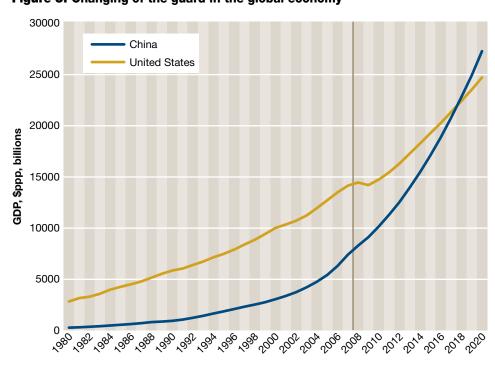


Figure 5: Changing of the guard in the global economy

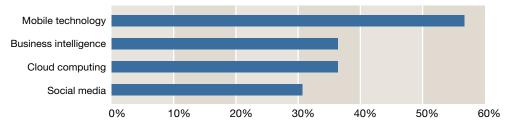




he shift to the new normal economy alone would be enough to trigger a major transformation of global business trends and strategies. But it has coincided with a wave of new digital technologies that will themselves be equally transformative. In many ways, the new normal economy is spurring adoption of these new tools and approaches, because they help companies achieve greater flexibility at lower costs. Survey respondents identified four key digital megatrends that are redrawing the business landscape.

Figure 6: Greatest positive impact on business

Which do you believe will have the greatest positive impact on your business over the next five years?



More than 50% of respondents within each sector surveyed say their firms will invest heavily in mobile technologies over the next five years.

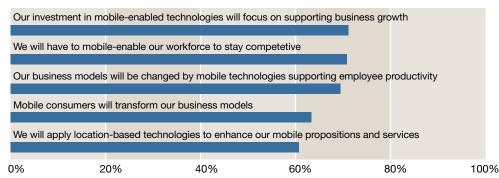
1. Mobile devices reach ubiquity

In a global marketplace, where companies are competing for new customers in unchartered markets, the mobile phone offers a valuable new marketing channel. Indeed, with more than five billion mobile subscribers across the globe today, mobility of communications and computing power is dramatically improving connectedness, making the world a smaller place and opening new market opportunities. As such, respondents say that mobile technologies are more likely to help business over the next five years than any other technology. ABI research, for example, expects the global market for mobile commerce to reach \$163bn by 2015. Respondents across all sectors, in firms of all sizes, and in both the developed and emerging world consistently rated it as a game changer—in fact, more than 50% of respondents within each sector surveyed say their firms will invest heavily in mobile technologies over the next five years.

Figure 7: The importance of mobile technology to business

How strongly do you agree with the following statements for your business over the next five years?

(% stating agree or agree strongly)





No consumer technology has spread as fast around the world, and no widely available consumer device has ever allowed consumers to connect with each other so easily as the mobile phone. This is true not only of consumers in developed markets. Mobility of communication and computing power is dramatically improving connectedness and opening new market opportunities in developing economies, where the falling costs of mobile telephony have accelerated adoption in low-income areas. According to the World Bank, for example, every 10 additional mobile phones per 100 people in a typical developing nation results in GDP growth of roughly 0.8%. "We have also seen a shift in the banking sector," says Kelly Beaver, a principal consultant at Coffey International Development Limited, an international development consulting company. "Where previously there was a large proportion of unbanked in sub-Saharan African countries, that proportion is changing as a result of mobile telephony."

Texting for money

M-Pesa ("Pesa" is Swahili for money; "M" stands for mobile), a joint venture between Safaricom and Vodaphone, is the biggest success story in mobile applications in East Africa. Conceived in 2005 and initially sponsored by the UK-based Department for International Development (DFID), the service allows subscribers to make payments and transfers via text messaging over their mobile phone. Since its launch in March 2007, the uptake of M-Pesa has been very impressive: Within the first nine months, M-Pesa boasted a subscription base of one million users; by January 2010, it had registered more than nine million customers across Kenya, Tanzania and Afghanistan.

M-Pesa can be used by anyone with access to a mobile phone and subscribed to the Safaricom network; all that is needed is an authorization, transaction code and proof of identity. Safaricom has been using M-Pesa system as a loyalty product to aid in retaining and acquiring new customers. Beyond payments and transfers, M-Pesa can now be used to purchase goods and airtime.

Another benefit of mobile phones as a marketing tool is that for many people, "the cell phone number is more stable than their home address," says Mr. Sviokla of Diamond Advisory Services. Kerry Langstaff, executive director of marketing at TriNet, an HR outsourcing services firm, agrees, observing that "even in a very low-income district, where most of the children are on food stamps, they all have smartphones."

Mobile technology will open up a huge range of business opportunities and applications. Of these, executives surveyed agree that location-aware services will have the greatest potential impact over the next five years, and many will be moving advertising sales promotion and entertainment to the mobile platform. Mobility will also drive new types of embedded machine-to-machine technology and sensor-based networks. SIM-enabled sensors, RFID technologies and smart codes will become common. And smart networks will trigger innovation across many industries—smart grid networks in energy and transportation; chronic disease monitoring networks in healthcare; mobile aware tagging in retail.

Mobility will transform the workforce as well. In fact, more than 60% of respondents say that mobility will be key to improving flexibility and working conditions at their firms. But this shift will not happen overnight: Executives remain rightfully concerned about the security of mobile devices and the ability to protect sensitive company information—60% of respondents rated this as a top risk. Meanwhile, the proliferation of mobile devices such as smart phones and tablets will create headaches for the information technology (IT) department, which must take a fresh look at its policies and practices for supporting and securing devices. As Kevin Taylor noted in a February post to the GSMA's Mobile Business Briefing blog: "It seems just about every CEO of a Fortune 500 company got an iPad for Christmas and asked the IT department to make it secure for use on the corporate VPN."



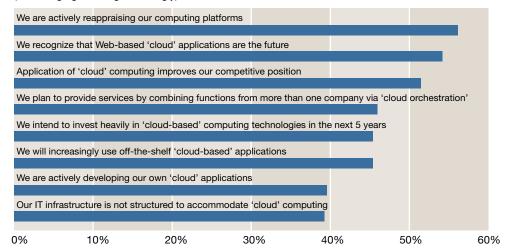
2. Cloud computing comes of age

Cloud computing—the metered provisioning of business applications over the internet or a private network—is not a new phenomenon. In the new normal economy, however, cloud computing takes on a far more critical role: Faced with tightening budgets and growing competition from new global players, companies will need access to more powerful software tools than they can afford under traditional annual software licenses. In the cloud, companies can pay for services as needed—whether it is for several months or only a few hours. "I can be a small business that can suddenly serve 20 or 30 million customers all around the world," says Ashish Agrawal, group product manager in the digital enterprise solutions group at Adobe. The flexibility of the cloud enables companies to enter new markets quickly while slashing overhead costs.

Analysts have estimated that IT professionals spend 70% of their time maintaining systems and only 30% of their time creating strategic value. Particularly for companies in emerging markets, the ability to access software and computing power through public and private clouds means that many firms will not need to build proprietary systems or purchase expensive hardware. This frees the IT department from legacy issues and allows it to focus on innovative ideas to create competitive advantage. In essence, cloud computing could give emerging market companies an opportunity to leapfrog over their rivals in developed countries.

Figure 8: Corporate attitudes to the 'cloud'

Please indicate the extent to which you agree or disagree with the following statements. (% stating agree or agree strongly)



Seventy percent of firms in the developing world are re-appraising their cloud platforms, compared with only 46% of firms in the developed world.

But on-demand computing may not always be the best avenue for IT service delivery. Over the long term it may be less expensive to buy traditional software licenses than a pay-per-use model. And executives remain concerned about the security risks inherent in putting their data into the cloud, a fear cited by almost half of respondents. "Regardless of how you approach it, security cannot be overlooked," says Bennet Ruiz, executive director of global segment marketing for AT&T. "Often in the rush to get to the cloud, some organizations look only at the internet, and that can be risky for mission-critical applications." Incompatibility with existing computing platforms, the lack of clear open standards and the inconsistency of supply are also worries for over one-third of executives.

Executives from businesses in developed countries appear more cautious about the opportunities that cloud computing bring to the business than their entrepreneurial counterparts in emerging regions. Survey figures show that 70% of firms in the developing world are re-appraising their cloud platforms, compared with only 46% of firms in the developed world. In fact, technology research firm Gartner estimates that the global cloud computing market will reach \$148.8 billion by 2014 (a tremendous increase over 2010, when the market was \$68.3 billion). Half of those revenues are expected to be generated outside the US. The appetite to embrace cloud technology is greatest among respondents from the financial, manufacturing and TICE (technology, information, communication and entertainment) sectors.



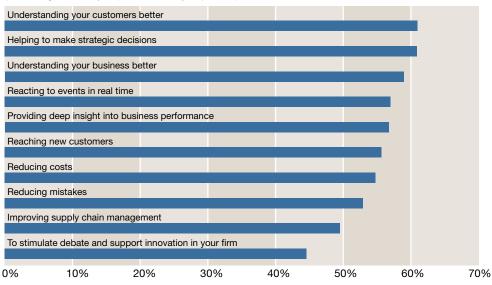
3. The rise of on-demand business intelligence

Companies are drowning in the sea of information they collect about customers, competitors and the global landscape. Much of this data is fragmented, collected from a variety of sources in inconsistent formats and stored away in separate departmental databases. Gathering internal information is challenging enough, but then extracting it from operational systems, structuring it in a separate analytical system and turning it into useful business intelligence is a slow grind for many firms. Add to that the growing desire to mine the web for intelligence on competitors and customers, and the business intelligence (BI) task becomes daunting to say the least.

In the new normal economy, data underpins nearly every aspect of business operations, from supply chains to marketing strategies to risk management. To succeed under these new dynamics, in which speed to market is critical, global companies must move closer to operating in real time. As such, the ability to analyze information rapidly to inform decision-making will be essential. Emerging developments such as in-memory analytics, in which summary data is stored in RAM rather than databases, may help in this effort. "The important thing," says Stuart Taylor, managing director in the internet business solutions group at Cisco Systems, "is what you do with all this data and how you get intelligence from it. There is a whole level of analysis we're just scratching the surface of."

Figure 9: The value of business intelligence

How important will business intelligence be to the following aspects of your business? (% stating extremely important or very important)





Survey respondents cite data overload, a lack of sufficient BI skills and tools, and conflicting departmental priorities as challenges to developing a cogent BI strategy.

Indeed, strategies that allow executives to analyze data quickly—and on any device—is an important first step. But more and more executives are looking to incorporate predictive analysis and scenario planning to help companies plan for the future and ensure business continuity. Indeed, senior management in a number of leading multinational firms, such as GE and Shell, are including multiple scenarios and contingency plans in their strategies. And financial institutions are extending in-house models to stress test their investment and lending portfolios.

The survey reveals a wide range of ways in which firms benefit from business intelligence. Around 60% of executives cite its important role in better understanding their business and customers. A similar proportion believes it helps them make strategic decisions and react in real time to market events. These benefits transmit to all aspects of the new normal business: Reaching new customers, reducing costs and errors, and improving supply chain management.

But companies need to tread carefully. Decisions based on faulty or incorrect data can have lasting consequences. And survey respondents cite data overload, a lack of sufficient BI skills and tools and conflicting departmental priorities as challenges to developing a comprehensive BI strategy. Companies must provide their employees with proper training to ensure that information is properly analyzed and shared across departments. The development of solid processes will help companies move toward more accurate decision-making based on real-time data, accessible anywhere and over any device.



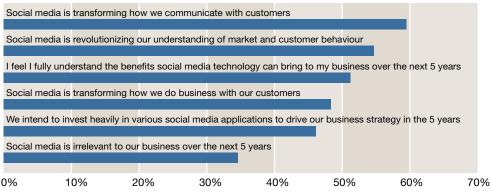
4. Social media and collaboration become the norm

Social media has become a cultural phenomenon during the last decade. Whether connectivity is via 'traditional' internet or over a mobile device, the message is clear. Social media is, by any measure, vast and fast growing. Facebook, with over 650 million users in March 2011, is seeing its user base expand at over 40% a year, rapidly displacing the national social networks that were previously popular in Europe, Latin America and most parts of Asia (including India). Twitter's volume of unique visitors is growing at over 80% a year. Groupon, the online sales promotion couponing firm, has more than 50 million subscribers, and yet it is seen as a relatively new kid on the social media block.

Despite this tremendous growth, survey results reveal a debate among executives over the business value of social media. For one-third of respondents, the use of social media to engage with customers and other communities is already an integral part of their firm's corporate communications strategy. And over 40% of companies are using social media on occasion. Still, one-fifth of respondents report that their company is not using social media at all-and one-third of respondents consider social media irrelevant to their business. Among sceptics, the concerns center on a loss of control over messaging and difficulty measuring ROI.

Figure 10: How social media is transforming business

To what extent do you agree with the following statements? (% stating agree or strongly agree)

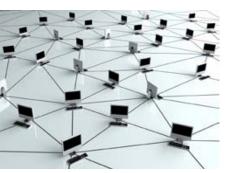


For a number of firms, particularly those in retail, consumer goods and technology,

"Organizations are taking the principles that make social media tools successful ... and applying them to their own internal system,"

Dave Coplin, National Technology Officer, Microsoft there is a convincing case to be made for the business use of social mediaespecially in reaching new markets. Ema Linaker, the former global head of online engagement for AVG, an internet security software firm, notes that AVG "noticed a huge uplift in Indonesia and Malaysia and also Latin America, including Mexico and Costa Rica," mainly through the firm's social media channels. In fact, in those markets AVG gains most of its consumers through its English Facebook page. "Seventeen percent of those are from Indonesia," says Ms. Linaker, "and it's not even in their local language."

For other companies, such as those in manufacturing and financial services, the benefits of social media for customer engagement are not as clear. Yet there may be value in looking at how social networks can improve internal operations-connecting employees with one another as well as external partners. "Organizations are taking the principles that make social media tools successful-things like reputation from eBay, microblogging, and discussion groups, and applying them to their own internal system," says Dave Coplin, Microsoft's national technology officer.



Firms that have seen success with their social media strategies have largely focused on building communities. To do this, executives must be willing to cede a certain amount of control—it is impossible to police thought and opinion communicated instantly across the globe. Instead, executives must build social assets and communities, encouraging and facilitating conversations. Of course, creating a community is not always easy, particularly if the conversation isn't a socially popular one. "Security software is not 'Diesel Jeans'," Ms. Linaker says. Still, it can be done—provided that companies target the right people with the right conversations. "We have worked very hard over the past 18 months to create around what is essentially a rather boring topic, and now have an engaged community of over half a million people across Twitter, LinkedIn, YouTube and of course, Facebook."

Dell's social media experiment

When companies think about a social media strategy, they generally create a Twitter feed and a Facebook fan page, and then hire an intern or two to keep an eye out for interesting developments. But Dell has taken social media one step further. Between 2008 and 2009, the company estimates, its Twitter feed has generated more than \$6m in orders, and has nearly 1.58m followers.

In December 2010, Dell announced the launch of its Social Media Listening Command Center, which it uses to track more than 22,000 daily posts related to the company, including posts on Facebook and Twitter. It is one of the first companies to launch a formal effort to track social networks—and it is doing so in 11 languages. Already, the effort has led to engagement with more than 1,000 customers per week, and a 30% reduction in negative comments about the firm.

Meanwhile, as companies transition into the new normal economy, they will need to be more nimble in connecting far-flung employees and enable virtual teaming. Tools such as wikis, group calendaring, text messaging, virtual conferencing facilities, unified communication platforms and knowledge management programs are becoming essential in helping firms improve collaboration among employees. They not only help to improve productivity; they allow companies to think more strategically about how they find talent and manage human capital, regardless of location.

Businesses can embrace collaborative tools to encourage innovation, anticipate market needs, and connect far-flung colleagues who can join together virtually to solve problems. Insurance giant AXA has been building new collaborative processes to generate ideas, create products and address everyday business problems. It asked its employees to create its own knowledge sharing system, which resulted in a tool called Mind Touch. The program helps employees share information and collaborate on ideas and solutions to business challenges. A separate section of the program focuses specifically on solving customer-related issues. "We have hundreds of successes as a result of this system," says Chris Denison, managing partner of the innovation hub at AXA insurance.



xecutives around the world agree that today's new market realities are here to stay. The shift from West to East, the rise of the value-driven customer and the heightened level of risk are not just short-term aftershocks from a deep recession, they are tectonic shifts that are creating a new normal market. The winners in the new global playing field will be those with the foresight to see what lies ahead and the ingenuity to find the right solutions for their business. Taking only small steps will not be enough—executives will need to challenge their current strategic thinking and future-proof their business strategies, models and practices.

Although a large part of the solution will revolve around organization and culture, because of the pace of digital change, most executives see technology as an essential part of the equation. Indeed, our research shows that companies will be making massive investments in their digital arsenal: 77% will increase their spending on business intelligence, 74% on mobile technology, 71% on cloud computing and 56% on social media. Their reasons for doing so vary somewhat by industry, but for most, the main purpose is to reduce the time needed to complete specific tasks and provide more responsive customer care. Respondents in manufacturing are focused on improving employee productivity, while in the retail sector firms are investing in technology to make it easier to reach new customers.

Figure 11: Why firms are investing in digital technology

How important do you consider Digital Transformation will be to the following aspects of your business? (% stating very important or extremely important) Most important Second-most important

	Total	Financial Services	Life Sciences	Manufacturing	Retail & Consumer	TICE
Reducing the time required to complete various tasks	60%	68%	55%	49%	70%	64%
Providing more responsive customer care	60%	63%	71%	46%	64%	68%
Improving employees productivity	58%	60%	63%	50%	64%	62%
Making it simpler to reach new customers	56%	66%	50%	34%	75%	61%
Reducing costs of doing business	56%	65%	61%	46%	57%	56%
Improving innovation in the business	56%	62%	47%	38%	58%	53%
Making working conditions more flexible	53%	59%	55%	49%	53%	53%
Eradicating functional silos to enable end-to-end process excellence	52%	57%	50%	37%	62%	58%
Redefining markets and terms of competition	50%	59%	47%	41%	57%	55%
Making it easier for suppliers to do business	48%	50%	47%	38%	58%	53%

The CEO agenda

Beyond industry specifics, however, there are several key imperatives that executives should consider as they prepare their businesses for the new normal economy.

Prepare to compete with companies in emerging markets—in your backyard as well as theirs. While their economies, markets and infrastructure may remain more volatile than that of developed nations, the emerging economies are producing swaths of new customers, as well as new competitors. And they are not content to focus on customers in their home markets, either—companies from fast-growing markets like India and China are quickly building a presence in the developed world.

More than 70% of respondents agree that their firms will need to enable a mobile workforce to remain competitive.

Partly because they suffer less from legacy infrastructure, companies in emerging markets are generally more attuned to the potential benefits of technology than those in advanced economies. For example, 81% of respondents from emerging markets say that investment in mobile technology will focus on enhancing business growth, compared with 64% for respondents based in the developed world. And the numbers extend beyond mobile telephony—across the board, executives in developing nations see technology as more vital to their business than those in the developed world. For these companies, this digital divide could help them leapfrog over their competitors.

Untether your workforce. The buzzwords of flexibility and nimbleness have often been seen as the strength of smaller businesses and the weakness of bigger ones. But technology is now eroding this size distinction; by empowering the workforce and improving internal communications, previously over-hyped flexibility is becoming a reality.

A majority of respondents expect operations to change over the next five years by technologies that support employee productivity and facilitate a mobile-enabled workforce—these include mobile devices, cloud computing and collaborative tools. This untethering of employees allows them to work remotely while staying in easy contact with colleagues as well as internal systems. In fact, more than 70% of respondents agree that their firms will need to enable a mobile workforce to remain competitive. In particular, survey figures indicate that the financial services, life sciences and manufacturing sectors are most likely to support a virtual workforce over the next five years. While technology certainly enables a mobile workforce, executives must remember that the key challenges will be organizational—building trust in a virtual environment, maintaining the corporate culture and ensuring performance controls.



Take your business into near-real-time. Given the increasing connectedness of customers, companies and partners, product lifecycles are becoming shorter. The result is that business now moves at a much faster pace than ever before—and will continue to speed up over the next five years. "Speed has just gone through the roof," says Andrea Traversone, a partner at Amadeus Capital. "Speed used to be in the realm of small, nimble companies; now we actually see very large companies moving at the same speed as start-ups. That is totally redefining the landscape for technology investing for us."

As the pace of business accelerates, the deluge of information increases and the cost of data storage falls, companies are developing strategies that will allow them to quickly analyze data and disseminate it effectively across the organisation. The result, among other things, will be better, faster decision-making, more accurate demand forecasting and improved marketing efforts: Roughly 55% of respondents say that the goal of their business intelligence strategies is to be able to react to events in real time. Of course, all of this hinges on a workforce that is trained to properly analyze and use information.

"The recession has really focused people on value for money, and firms that succeed are those that focus on providing that value"

Isabelle Lescent-Giles, Associate Professor of International Business, San Jose State University Engage the hyper-informed customer. The new normal customer will be hyper-informed, value-driven and increasingly located in emerging markets. To be successful, companies will need to rethink their marketing, sales and relationship strategies, and even business models, to keep customers loyal and penetrate new market segments. This will place new pressures on business, both in terms of providing information on products and services but also in managing performance feedback and brand image integrity. Advertising, market testing, product design, and after sales care are all stages of the business cycle undergoing transformation in response to more empowered customers. "The recession has really focused people on value for money, and firms that succeed are those that focus on providing that value," says Isabelle Lescent-Giles, associate professor of international business at San Jose State University. Real-time response, personalized customer service and rewards for loyalty are expectations of the "new normal" customer.

Smart companies will turn this into a competitive advantage. Over the next five years, as social media tools proliferate, customers will increasingly supply companies with critical insight regarding improvements to products, services and operations. Firms that can develop more sophisticated strategies for mining the insights generated from such activity will win market share—and loyalty.

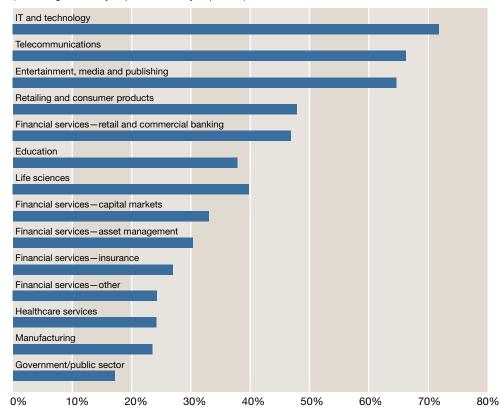
Reinvent your business model—before your competitor does it for you. Long before Netflix sent movies streaming over the internet, it maimed Blockbuster with a few simple innovations—fast delivery, and no late fees. Technology, a hugely disruptive force in business, has turned the entertainment and publishing industries upside down, and will have a similar effect on other sectors. Cloud computing is transforming the traditional license software model. Mobile commerce is shaking up the banking sector, particularly in emerging markets. Real-time business analytics will lead to new approaches for manufacturers. Across all industries, existing business models will be disrupted, destroyed and rebuilt by the application of new technologies.



Figure 12: Better information technology transforming business

In your view, which of the following business sectors will be most transformed (for the better) by information technology over the next 5 years?

(% stating extremely important or very important)



"Technology is a new word for innovation. It has the power to transform business."

Bruce Rogers, Chief Brand Officer, Forbes

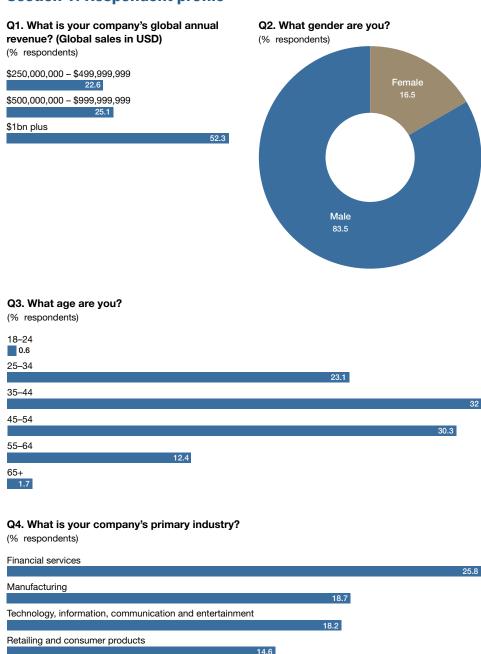
At the same time, new opportunities will be created as business models undergo change. "It's the calculus of commerce," says Mr. Sviokla of Diamond Consulting. "The speed of innovation is increasing, and so business models are aging faster." Over the past decade technology has been at the heart of new models that were unheard of before the turn of the century—mobile applications, digital music and video streaming services are but a few examples. "Technology is a new word for innovation," says Bruce Rogers, chief brand officer at Forbes. "It has the power to transform business. It will be a great time for entrepreneurs who can take advantage of new technology to take on incumbent companies and create new value."



By 2015, the global economy is forecast to be growing strongly (averaging 3.9% per annum over the 2012-2015 period) with Western economies finally seeing their public borrowing under control and the private sector growing on the back of robust world demand. Technology will continue to rise to the challenge of scarce resources, contributing new solutions to diverse problems including energy supply and delivery, transport management, healthcare provision and national security. The spare capacity in Western economies is expected to be slowly re-absorbed, with help from opportunities presented by new technologies. The pace of recovery, particular in the West, will be slow, hampered by restrictions in public and consumer finance; nevertheless, growth will bring a return of confidence across business, consumers and the restructured public sector. Looking at the road ahead, CEOs will want to rethink their business strategies and use of technologies to address the new market realities. The forthcoming whitepaper will outline these issues in greater detail and discuss the strategies executives should consider to thrive in the new normal market.

Appendix

Section 1: Respondent profile



Note: Numbers may not total 100% due to rounding

Life sciences

Other

Government and education

Q5. Which of the following best describes your role?

CEO/President/COO
6.6
CFO/Finance Director

(% respondents)

CMO/Marketing Director

CIO/CTO/Technology Director

Other C-level Executive or Equivalent

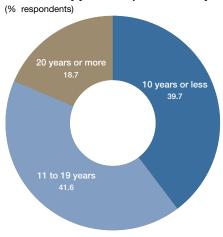
8

Director of Strategy/Planning/Corporate Development

SVP/VP/Director/Head of Business Unit or Department

27.2

Q6. How many years of experience have you had in this and similar roles?

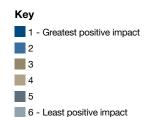


Section 2: Macroeconomic trends

Key Q1. From a personal perspective, to what extent do you agree or disagree with the following trends? Strongly agree (% respondents) Agree Economic growth rates will be lower over the next 5 years in Western economies as a result of the global Neither agree nor disagree Disagree Strongly disagree Emerging market economies will continue to grow strongly over the next 5 years despite the impact of the global financial crisis on Western economies The economic and business outlook has become more uncertain and this will lead companies to be more cautious in making new investments over the next 5 years The global recession will hasten the shift of economic power over the next 5 years from the West to emerging markets Government has lost touch with the challenges facing private-sector businesses Customers have become more cost-conscious and demanding as a result of the global financial crisis Q2. Again from a personal perspective, which of the trends mentioned above will have the Kev largest impact on the level of investment in new information and communications 1 - Greatest impact technologies in your company over the next 5 years? (% respondents) Economic growth rates will be lower over the next 5 years in Western economies as a result of the global financial crisis 4 28 Emerging market economies will continue to grow strongly over the next 5 years despite the impact of the global 6 - Least impact financial crisis on Western economies The economic and business outlook has become more uncertain and this will lead companies to be more cautious in making new investments over the next 5 years The global recession will hasten the shift of economic power over the next 5 years from the West to emerging markets Government has lost touch with the challenges facing private-sector businesses Customers have become more cost-conscious and demanding as a result of the global financial crisis Key Q3. Which of the following trends will be the largest obstacle to the adoption of new information and communication technologies over the next 5 years? 1 - Largest obstacle Economic growth rates will be lower over the next 5 years in Western economies as a result of the global financial crisis 25 16 4 Emerging market economies will continue to grow strongly over the next 5 years despite the impact of the global financial crisis on Western economies 6 - Smallest obstacle The economic and business outlook has become more uncertain and this will lead companies to be more cautious in making new investments over the next 5 years The global recession will hasten the shift of economic power over the next 5 years from the West to emerging markets Government has lost touch with the challenges facing private-sector businesses Customers have become more cost-conscious and demanding as a result of the global financial crisis

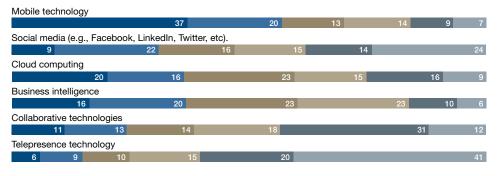
10

Section 3: Digital trends



Q1. Thinking again of the main digital technologies that were described in the survey introduction, which do you believe will have the greatest positive impact on your business over the next 5 years?

(% respondents)





1 - Greatest investment

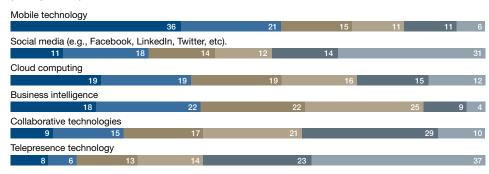
2 3

4 5

6 - Least investment

Q2. Thinking again of these main digital technologies, which do you believe your company will be investing in most over the next 5 years?

(% respondents



Key

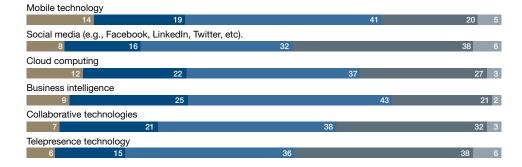
Above 50% 21%-50%

0%-20%

No change

Decrease

Q3. Thinking of all digital technologies (e.g., collaborative technologies, business intelligence, mobile technology, social media, cloud computing, telepresence technology), do you expect your company's expenditure to increase, stay the same, or decrease over the next 5 years? (% respondents)



Extrem Very s

Extremely significant

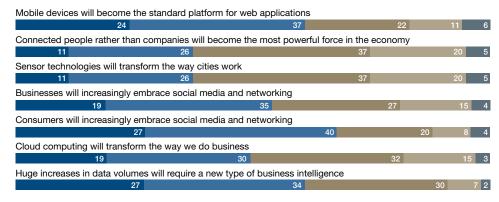
Very significant

Moderately significant

Slightly significant

Not at all significant

Q4. How significant do you believe the following technology trends will be over the next 5 years. (% respondents)



Section 4: Mobility

Key Strongly agree

Agree

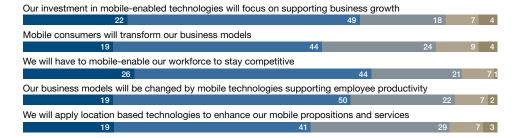
Neither agree nor disagree

Disagree

Strongly disagree

Q1. How strongly do you agree with the following statements for your business over the next five years??

(% respondents)



Kev

Extremely important

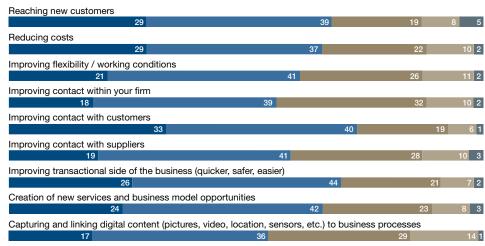
Very important

Moderately important

Slightly important

Not at all important

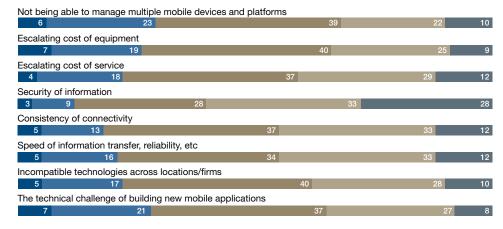
Q2. How important to your business will the following mobility features be over the next 5 years? (% respondents)

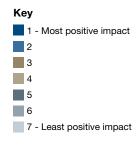




Q3. To what extent do you consider the following factors as risks to the adoption of mobile technologies in your firm?

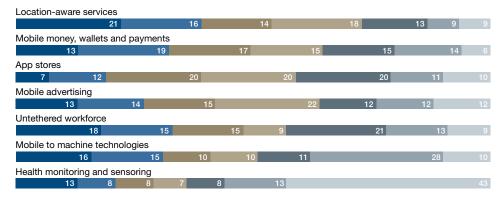
(% respondents)





Q4. What are the key emerging applications of mobile technologies that may have the most positive impact your business in the next 5 years?

(% respondents)



Section 5: Social media

Q1. Does your company use social media (e.g., Facebook, LinkedIn and Twitter, etc.) to engage with customers and other communities?

(% respondents)



Key

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Q2. To what extent do you agree with the following statements?

(% respondents)

Key

Strongly agree

Agree

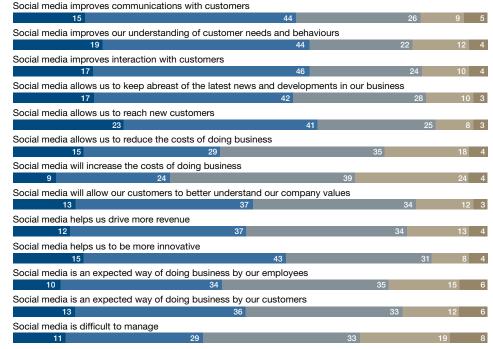
Neither agree nor disagree

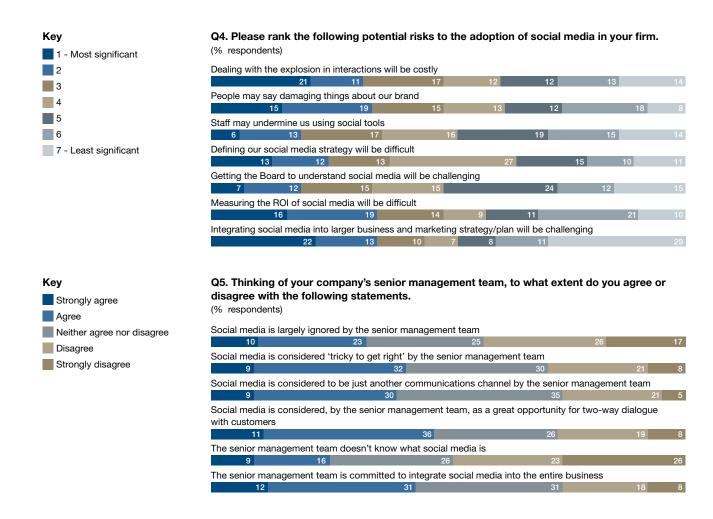
Disagree

Strongly disagree

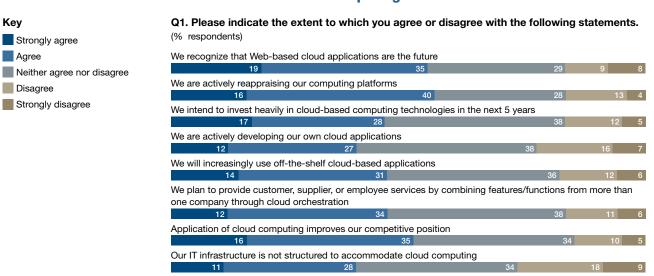
Q3. Please indicate the extent to which you agree or disagree with the following statements.

,





Section 6: On-demand computing



Key

Agree

Disagree



Extremely important

Very important

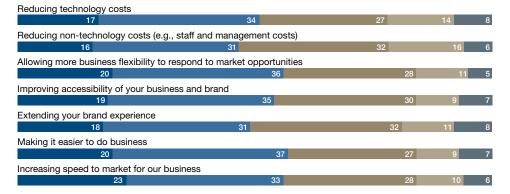
Moderately important

Slightly important

Not at all important

Q2. How important do you consider on-demand or cloud-based computing to the following elements of your business over the next 5 years?

(% respondents)



Key

Significant risk

Large risk

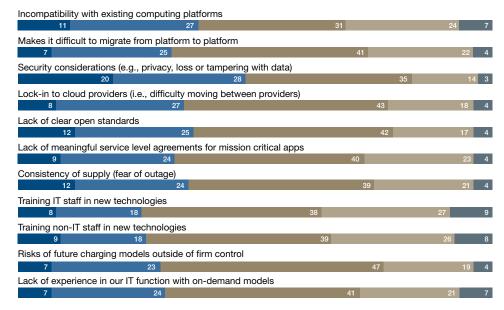
Moderate risk

Slight risk

No risk

Q3. To what extent do you consider the following factors as risks to the adoption of on-demand computing in your firm?

(% respondents)



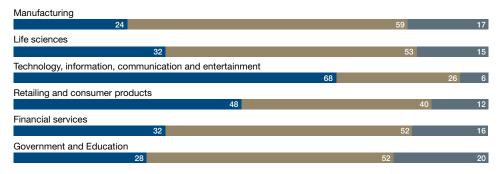
Kev

- Greatly transformed
- Somewhat transformed
- Not at all transformed

Section 7: Digital transformation of key industries

Q1. In your view, which of the following business sectors will be most transformed (for the better) by information technology over the next 5 years?

(% respondents)



Key

- Extremely important
- Very important
- Moderately important
- Slightly important
- Not at all important

Q2. How important do you consider Digital Transformation (that is ever-increasing role technology plays managing and integrating business activities) will be to the following aspects of your business?

(% respondents)

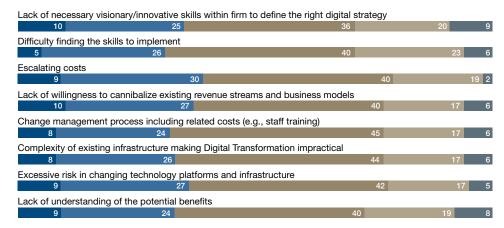


Key

- Significant risk
- Large risk
- Moderate risk
- Slight risk
- No risk

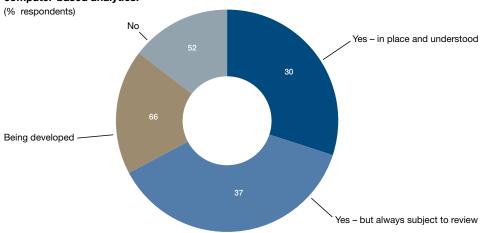
Q3. To what extent do you consider the following factors as risks to the Digital Transformation of your business?

(% respondents)



Section 8: Business intelligence

Q1. Do you have a business intelligence strategy? By business intelligence strategy we mean a clear set of business processes to improve business performance based on formalized computer-based analytics.



Key

Extremely important

Very important

Moderately important

Slightly important

Not at all important

Q2. How important do you consider business intelligence will be to the following aspects of your business?

(% respondents)

Reaching new customers			
21	34	22	15 7
Understanding your business better			
20	39	24	12 5
Reacting to events in real time			
16	41	29	11 3
Providing deep insight into business performand	ce		
15	42	28	12 3
Reducing mistakes			
21	32	31	11 4
Understanding your customers better			
23	38	24	12 3
Helping to make strategic decisions			
25	36	27	10 2
Reducing costs			
22	33	34	9 2
Stimulating debate and supporting innovation in	n your firm		
15	30	35	16 4
Improving supply chain management			
15	34	32	14 5

Key

Significant risk

Large risk

Moderate risk

Slight risk

No risk

Q3. To what extent do you consider the following factors as risks to the development of your business intelligence strategy?

(% respondents)

Not knowing what to track becau

Not knowing what to track because of business change		
7 23	38	23 9
Not having business intelligence tools that can respond in real time		
9 26	40	21 4
Dealing with a deluge of data		
12 30	38	15 4
Different parts of the business having different priorities		
11 32	38	14 5
Not having appropriate tools to do the job		
9 26	40	20 5
Lack of sufficient skills to collate and interpret the information		
10 31	37	18 5
Government regulation of information gathering and sharing		
9 25	35	21 10
Inability to aggregate data across siloed IT systems		
9 29	40	17 6

Summary of key economic indicators, 2011–2015 average

	Growth (real GDP)	Inflation	Industrial production	Jobless rate	Fiscal balances as % of GDP
Argentina	4.03	7.17	4.62	7.08	-0.34
Australia	3.41	2.52	1.92	4.99	-0.07
Austria	2.05	2.05	3.83	4.30	-3.20
Belgium	2.09	2.11	2.99	6.96	-2.87
Brazil	4.46	4.33	4.84	4.93	-1.78
Bulgaria	5.38	3.34	7.81	6.50	-1.93
Canada	3.32	2.43	3.55	7.22	-2.36
Chile	4.89	3.05	6.14	6.21	0.58
China	8.78	3.50	8.16	4.13	0.40
Czech Republic	2.93	2.63	5.60	7.38	-3.43
Denmark	2.21	2.13	3.15	6.18	-3.10
Finland	3.02	1.99	5.29	7.09	-1.48
France	1.95	1.91	2.42	8.42	-4.64
Germany	2.05	1.94	3.47	6.90	-2.31
Greece	0.37	1.69	0.24	15.09	-6.13
Hong Kong	5.02	2.99	3.01	3.50	0.49
Hungary	3.28	3.08	5.68	9.54	-2.47
India	8.39	5.20	8.74	8.04	-3.88
Indonesia	6.18	5.61	5.13	5.58	-0.28
Ireland	1.77	1.18	3.59	14.10	-10.22
Italy	1.34	2.04	2.62	7.81	-3.13
Japan	1.72	0.52	3.22	4.42	-7.01
Korea	4.27	2.96	5.74	3.48	0.25
Malaysia	4.82	3.06	5.11	2.43	-4.33
Mexico	4.48	3.48	4.52	4.13	-1.17
Netherlands	1.94	1.99	2.39	4.85	
Norway	2.70	2.30	1.83	3.63	8.83
Philippines	4.92	4.44	4.81	6.65	-1.99
Poland	4.06	2.99	5.17	10.06	
Portugal	0.89	1.54	1.45	10.82	-3.90
Romania	4.34	3.53	5.68	6.44	-4.32
Russia	4.56	6.49	5.35	6.90	-2.11
South Africa	4.34	4.83	4.35	23.79	-4.65
Singapore	4.81	1.89	3.33	2.52	0.50
Slovakia	3.76	2.63	6.39	11.10	-3.47
Spain	1.45	1.79	2.25	19.06	-4.85
Sweden	3.08	2.03	3.51	6.78	0.23
Switzerland	2.00	1.44	6.37	2.67	0.35
Taiwan	4.14	1.80	5.49	3.79	-2.02
Thailand	5.06	2.67	6.18	0.78	-0.99
Turkey	5.96	4.79	6.98	9.77	-1.82
UAE	5.11	2.94	5.65	3.68	1.38
UK	2.62	2.31	1.59	7.48	-5.52
US	3.39	2.31	4.35	7.19	-7.67

World GDP forecast

% change on previous year							% of world GDP (in 2010 US\$)		% of world GDP (in 2010 PPP)		
	2010	2011	2012	2013	2014	2015	2010-15	2010	2015	2010	2015
US	2.8	3.2	3.3	3.7	3.5	3.3	3.4	23.7	23.2	19.8	18.7
Japan	4.0	1.3	2.0	2.0	1.8	1.4	1.7	8.8	8.0	5.9	5.1
Eurozone	1.7	1.4	1.7	2.0	2.0	2.0	1.8	19.6	17.9	14.4	12.6
of which: Germany	3.5	2.3	1.8	2.1	2.1	2.0	2.1	5.3	4.9	4.0	3.5
France	1.5	1.6	2.0	2.1	2.0	2.0	2.0	4.2	3.8	2.9	2.6
Italy	1.2	1.1	1.2	1.3	1.4	1.8	1.3	3.3	2.9	2.4	2.1
UK	1.3	1.8	2.5	3.0	3.0	2.8	2.6	3.6	3.4	2.9	2.8
China	10.3	9.5	8.8	8.8	8.6	8.3	8.8	9.5	12.0	13.6	16.6
India	8.6	7.9	8.8	8.9	8.4	8.0	8.4	2.6	3.3	5.4	6.5
Other Asia	6.9	5.5	5.9	5.9	5.7	5.6	5.7	8.9	9.7	15.0	15.8
Mexico	5.5	4.5	5.2	5.0	4.0	3.7	4.5	1.7	1.7	2.1	2.1
Brazil	7.5	4.2	5.1	4.6	4.0	4.1	4.4	3.4	3.5	3.0	3.0
Other Latin America	5.1	4.0	4.7	4.3	3.9	3.7	4.1	5.9	6.0	7.2	7.0
Eastern Europe	3.4	3.9	4.8	5.0	4.6	4.2	4.5	5.4	5.6	6.8	6.7
MENA	5.1	4.9	5.6	5.4	5.2	5.0	5.2	4.2	4.4	5.4	5.5
Advanced economies	2.8	2.4	2.7	2.9	2.9	2.7	2.7	66.6	62.6	52.0	47.7
Emerging economies	6.6	6.1	6.3	6.4	6.1	5.9	6.2	33.4	37.4	48.0	52.3
of which BRICs	8.8	7.8	7.8	7.7	7.4	7.1	7.6	17.9	21.4	25.1	29.1
World	3.9	3.5	3.8	4.0	3.9	3.7	3.8	100.0	100.0		
World (PPP)	4.7	4.3	4.6	4.8	4.6	4.5	4.6			100.0	100.0

World GDP growth by sector

	% с	% change on previous year						% of world	
	2010	2011	2012	2013	2014	2015	2010-15	2010	2015
Agriculture, forestry & fisheries									
Advanced Economies	-5.9	0.1	-0.2	0.1	0.3	0.4	0.1	47.4	43.9
Emerging Economies	2.8	3.1	2.8	2.7	2.6	2.5	2.8	52.6	56.1
World	-1.9	1.5	1.2	1.3	1.4	1.4	1.4	100.0	100.0
Extraction									
Advanced Economies	-9.1	0.3	0.3	0.4	0.3	0.3	0.3	42.8	36.7
Emerging Economies	6.0	5.2	5.7	5.4	5.2	5.0	5.6	57.2	63.3
World	-1.4	2.8	3.2	3.2	3.0	3.0	3.1	100.0	100.0
Manufacturing									
Advanced Economies	3.2	3.8	4.6	3.7	2.8	2.3	3.5	69.0	65.3
Emerging Economies	10.0	7.5	7.0	6.8	6.5	6.2	7.3	31.0	34.7
World	4.6	4.6	5.1	4.4	3.7	3.2	4.4	100.0	100.0
Utilities									
Advanced Economies	-1 .9	1.2	1.0	1.2	1.4	1.5	1.3	66.4	61 .9
Emerging Economies	7.5	5.7	5.7	5.5	5.1	4.8	5.7	33.6	38 .1
World	0.4	2.3	2.2	2.4	2.4	2.4	2.4	100.0	100.0
Construction									
Advanced Economies	-4.3	1.7	3.3	3.1	2.7	2.5	2.7	73.2	69.0
Emerging Economies	5.4	7.4	7.8	7.8	7.2	6.5	7.9	26.8	31.0
World	-2.7	2.7	4.1	4.0	3.6	3.3	3.7	100.0	100.0
Distribution services									
Advanced Economies	-2.0	1.8	1.9	2.6	2.6	2.5	2.3	72.9	69.2
Emerging Economies	7.5	5.9	6.4	6.5	6.3	6.2	6.7	27.1	30.8
World	-0.4	2.5	2.7	3.3	3.3	3.3	3.1	100.0	100.0
Transport & communications									
Advanced Economies	-0.9	2.6	2.7	3.3	3.4	3.4	3.2	73.0	69.6
Emerging Economies	7.4	6.5	6.8	6.8	6.4	6.2	7.0	27.0	30.4
World	0.5	3.3	3.4	3.9	4.0	3.9	3.8	100.0	100.0
Financial & business services									
Advanced Economies	-2.3	2.4	2.4	2.8	3.0	3.0	2.8	80.4	78.0
Emerging Economies	5.4	6.1	6.4	6.5	6.2	6.0	6.7	19.6	22.0
World	-1.7	2.7	2.7	3.1	3.3	3.3	3.1	100.0	100.0
Non-market services									
Advanced Economies	-3.4	0.3	0.3	0.8	1.2	1.3	0.8	78.7	75.5
Emerging Economies	6.1	5.4	5.8	5.7	5.5	5.5	5.9	21.3	24.5
World	-2.5	0.8	0.9	1.4	1.7	1.8	1.3	100.0	100.0
GDP									
Advanced Economies	2.8	2.4	2.7	2.9	2.9	2.7	2.7	66.6	62.6
Emerging Economies	6.6	6.1	6.3	6.4	6.1	5.9	6.2	33.4	37.4
World	3.9	3.5	3.8	4.0	3.9	3.7	3.8	100.0	100.0



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