



India Insights

The Indian economy newsletter



May 2016

KPMG.com/in



Table of contents

Tune in

Economy bytes

Insights

Internet of Things - Rachna Nath

Spotlight

Technology sector - Akhilesh Tuteja

Market trends

Future of wearable technology -
Akhilesh Tuteja

Opinion

Changing landscape of cybersecurity
in India - Sandeep Gupta

Partner speak

Our publications

KPMG in the news

Tune in

The Fourth Industrial Revolution (FIR) and what it means for India?

The global economy stands at the cusp of a profound change, comparable in scale to the advent of the First Industrial Revolution. From the development of assembly line production to a new phase of robots that do everything to embrace and support human efficiency, technological developments are permitting even greater levels of automation. Meanwhile, the near universal ownership of smart devices in many parts of the world is leading to a degree of interconnectedness that was previously unimaginable.

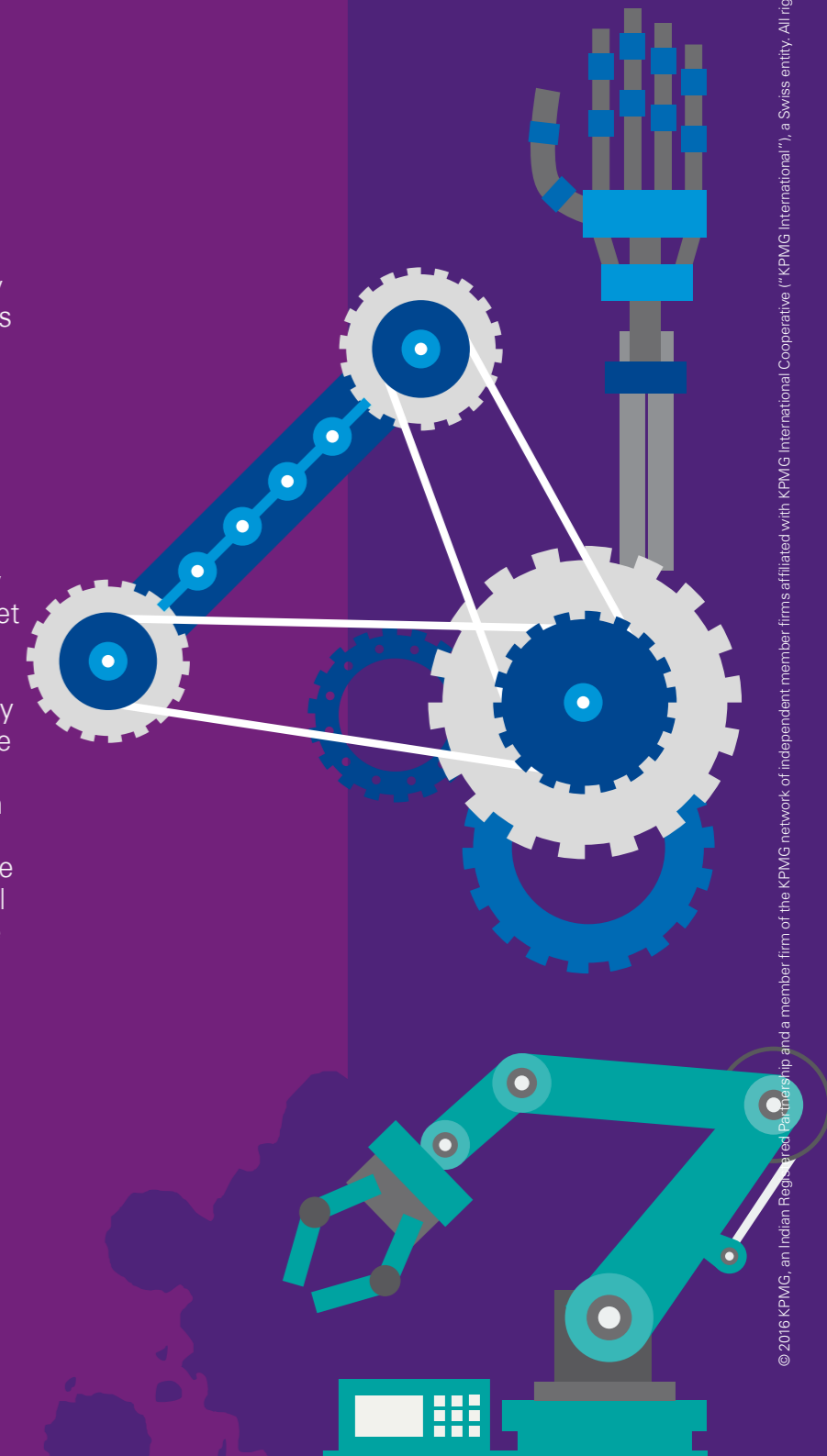
These developments, which we believe are part of the FIR, are expected to have significant implications on businesses, governments and the nations.

An automated and connected world is enabling greater control of the government and enterprises over people/ employees, as they slowly establish command over the digital infrastructure. Overall, the impact of this FIR is likely to be felt in India in terms of productivity, access to competent products and services, labour force displacement, technology-driven supply chain integration, reduction in trading costs, etc. This is expected to open up new markets, increase income levels, enhance the quality of life and drive economic growth.

Way forward

To fully leverage the opportunities provided by the FIR

- India needs to invest heavily in up-skilling initiatives.
- Government should work towards an enabling policy ecosystem to ensure that legislations and regulations bolster e-innovation, as well as the design of Indian applications.
- New entrants should have the ability to create applications and services that further drive 'Digital India' initiative. This is likely to improve efficiency of the government and other services.
- The success of all the above factors hinges to a very large extent on the government's official policy on net neutrality. To put it simply, up-skilling initiatives, e-innovation and development of application that drive the 'Digital India' initiative can only happen inclusively if the internet is neutral, i.e. open, fair, and accessible to all (even in the remotest villages of the country), and has no gatekeepers. To this extent, the delays in laying out the National Optic Fibre Network (NOFN) need to be addressed. The NOFN is the backbone of the 'Digital India' initiative as it creates the infrastructural framework upon which internet connectivity shall be made available to everyone in the country.



Economy bytes

First bi-monthly monetary policy review FY16-17

In its first bi-monthly monetary policy review for FY16-17, the Reserve Bank of India (RBI), India's central bank, announced a 25 basis point (bps) cut in the repo rate from 6.75 per cent to 6.5 per cent. The Cash Reserve Ratio (CRR) on the other hand is maintained at 4 per cent¹. The accommodative monetary policy stance is a positive step, given the favourable condition with respect to inflation and fiscal stability. The rate cut, which comes in after a gap of six months, could induce a fresh round of demand and investment in the economy. The central bank is expected to continue to watch over the macroeconomic, financial and weather developments in the months ahead with a view of retorting to further policy action as the space opens up.

Liquidity measures

A number of steps were announced to ease up liquidity, which could help in the effective transmission into the lending rates by banks. The recent reduction in the small savings interest rate up to 1.3 per cent, as well as the introduction of the marginal cost of funds-based lending rate (MCLR) have provided enough room to banks to trim the lending rates². The coming days could be critical in assessing the degree of support provided by commercial banks in further stimulating the investment cycle.

Impact on individuals

- Lower Equated Monthly Installments (EMI) on loans
- Banks deposit rates may moderate
- Small savings rate may move even lower.

Impact on corporates

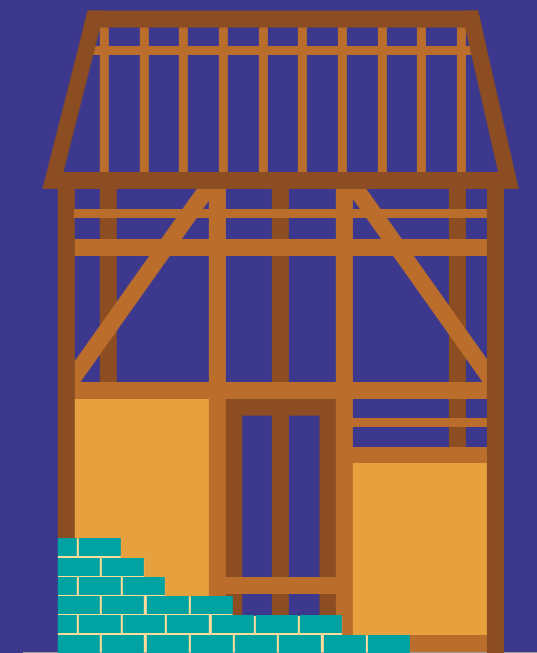
- Borrowing cost could trend down
- Balance sheets likely to get repaired
- Capex spending likely to revive.

Real Estate (Regulation and Development) Bill, 2016

The Real Estate (Regulatory and Development) Bill is finally seen the light of the day, though it is a watered down version of the initial Bill proposed in 2013. Essentially, the Bill is anticipated to establish state level bodies, seeking to regulate the hitherto largely unregulated real estate sector in India. Its provisions aim to protect hoards of home buyers across the country who face the brunt of project delays, one-sided agreements, and shoddy product delivery³. In essence, the bill intends to segregate the quality and time-focussed developers from casual operators. Further, enforced disclosures and registration could reduce black money transactions and re-instate credibility of the sector (through greater transparency and accountability).

Following are a few identified implications of the Bill:

- Developers are expected to benefit as higher transparency and accountability may improve institutional fund flow into the sector⁴.
- The incidence of tussle between home buyers and developers due to delay in project completion are likely to come down as 70 per cent of the collections from home buyers need to be deposited in the escrow account that can be used for the same project as against 50 per cent earlier⁵.
- The Bill will also put in place a unified framework for resolving disputes between developers and home buyers. This could help increase consumer confidence as well as create lasting developer brands that are strong on quality, and facilitate timely delivery of their projects.
- Over the long-term, the Bill is likely to pave the way to help the government in achieving its objective to provide 'Housing for All' through enhanced private participation.



1. 'First Bi-monthly Monetary Policy Statement for the year 2016-16', Reserve Bank of India, https://www.rbi.org.in/Scripts/BS_ViewBulletin.aspx?id=16161, accessed on 5 April 2016;
 2. 'Banks await RBI policy before cutting rates', Moneycontrol, http://m.moneycontrol.com/news/economy/banks-await-rbi-policy-before-cutting-rates_5953941.html, accessed on 20 March 2016
 3. 'Real Estate Bill To Safeguard Rights of Home Buyers: Industry Body', NDTV Profit, <http://profit.ndtv.com/news/real-estate/article-real-estate-bill-to-safeguard-rights-of-home-buyers-industry-body-1287841>, accessed on 16 March 2016;

4. 'Real Estate Bill to Facilitate Foreign Direct Investment in the Housing Sector'; The Indian Express, <http://www.newindianexpress.com/business/news/Real-Estate-Bill-to-Facilitate-Foreign-Direct-Investment-in-the-Housing-Sector/2016/03/20/article3337338.ece>, accessed on 20 March 2016
 5. 'What impact will real estate bill have on developers and home buyers?', The Economic Times, <http://reality.economicstimes.indiatimes.com/news/industry/what-impact-will-real-estate-bill-have-on-developers-and-home-buyers/51348523>, accessed on 10 March 2016

Please elaborate on the adoption challenges that you foresee?

There are a number of issues that make adoption of IoT an issue, however a few key ones are:

- **Inter-operability** – lack of standard architecture and protocols makes machine to machine communication and scalability an issue.
- **Last mile connectivity** – India still tends to lack a reliable infrastructure for a larger integration of machines on a real-time basis.
- **Security** – as more and more devices connect to each other, protecting these devices and the underlying data against external attacks is critical.
- **Managing the volume of data** – as devices generate data, it is not only the bandwidth to the cloud that is key, but the space required to store the volume of data generated as well.
- **Power** – analysts predict the number of connected devices to be far more than human beings on the planet by 2020. As this increases over a period of time, these devices may have to run on sustainable and unconventional energy sources to make IoT a practical solution for its users.

What is your take on the current state of net infrastructure in the country? Could this create a digital divide?

The state of infrastructure in India is such where last mile connectivity has been an issue. However, with the government's focus on 'Digital India' and 'Make in India' initiatives, there is a greater emphasis on improving the infrastructure. Regulatory changes, coupled with the increased penetration of 3G and 4G could help strengthen the ecosystem. In fact, with the penetration of smartphones in India, and technology being able to work in both online and offline mode, the digital divide can only lessen.

Which industries have been the early adopters of the IoT eco-system in India? What difference has it made?

Industries such as, manufacturing, energy and natural resources, that have largely been asset heavy have been the early adopters of IoT. They have used IoT to manage not only the performance of these assets, but also coupled it with predictive analytics to do it smarter. They have created integrated command and control centres to manage this centrally and made device-to-boardroom visibility of assets possible.

A few companies (e.g. tyre companies) are using IoT to manage their inventory at least till the distributor level. Others in the automotive sector have married IoT with augmented reality to create virtual dealerships.

Lately, industries such as insurance, and now healthcare, are using IoT to drive new business models or convenience for their consumers. Healthcare industry is using IoT to expand its business to patients' homes, now that it is possible to track a patient's vital statistics remotely.

In what ways are start-ups causing disruptions in the IoT space?

Start-ups are not only inventing/redefining the underlying technology of IoT but are also creating new business models that provide related services to their clients. With new technologies emerging faster than ever, it would be counter-productive for enterprises to own and manage these technologies in-house. We may see more and more Financial Technology (FinTech) companies emerge in this area of IoT where the 'consuming' company collaborates with these start-ups to get agility in their processes, without the hassle of requiring to update and upgrade the application every time a new version or a new technology comes in play.

Disruption is not only that which these start-ups create, but in the way larger enterprises adopt it as part of their model to the market, to increase revenue, reduce cost or bring in efficiency.



Spotlight

Technology sector

India continues to be a leader in the global Information Technology-Business Process Management (IT-BPM) arena and underlines its distinctive position as one of the few countries that offers hardware and software manufacturing, as well as IT services. The industry is pegged to grow at a rate of 8.5 per cent in FY16 over the previous year to reach USD143 billion.⁶ Exports are expected to touch USD108 billion in FY16⁶, further signifying the crucial role of the technology sector in the economy.

India has been rapidly moving upwards on the technology adoption curve to innovate and deliver leading services. It has excelled in business delivery and served as one of the most attractive offshore delivery centres among other nations. It also serves as a hub for budding start-ups, focusing on developing innovative solutions and collaborating with larger firms to meet the current needs of the industry. The Indian government showed a keen interest in start-ups by introducing new initiatives such as 'Digital India', 'Smart Cities' and 'Make in India', which have attracted huge investments from IT giants and government bodies, worldwide. This year, in a bid to foster growth in the start-up landscape, the government aims to facilitate the registration of companies within a day.⁷ The current focus of the IT sector is on the use of artificial intelligence and cloud-enabled services. With the increased need for automation, the threat in the coming years is expected to be on the reduction of the human resource demand in the BPO industry. Also, cybersecurity has become one of the prime focus areas for the Indian IT industry, which is why several organisations are working on

building cybersecurity as a key capability. It has become necessary for the government, citizens and businesses to safeguard themselves from the rising cybercrime.

Challenges faced

There is an amalgamation of factors that pose a concern for IT service companies in India. These include visa issues in the U.S., changes proposed in the migration policy of the U.K., a limited number of work visas, and an increased threshold of minimum salary for skilled workers. In the past, some of the major challenges faced by Indian outsourcing providers in Europe have been language barriers and data privacy directives. This has limited the amount of work that can be moved to the country. For the last few years, India has been eager to sign an agreement with the U.S., while the U.S. is of the view that India's social security system is not compatible with their system, in terms of coverage.⁸ There is an urgent need to include these issues in the World Trade Organisation (WTO) and Free Trade Agreement (FTAs) as well.



Akhilesh Tuteja

**Partner and Head
Technology
KPMG in India**

⁶ NASSCOM Strategic report 2016
⁷ Technology, Union Budget 2016, Post-Budget sectoral point of view; KPMG in India; <https://www.kpmg.com/IN/en/services/Tax/unionbudget2016/Documents/Technology.pdf>, accessed on March 2016

⁸ 'India, U.S. totalization agreement on the right track', Business Standard, http://www.business-standard.com/article/economy-policy/india-us-totalization-agreement-on-the-right-track-115101300626_1.html, accessed on 16 March 2016



Market trends

Our technology expert – on the future of wearable technology

Wearable technologies have moved beyond being functional to fashionable, in the consumer market. India may not be leading the adoption race, but lately, there has been an explosion of health bands and smart watches in the Indian market. Smart devices let you measure the calories burnt at every step, monitor your heartbeat and even synchronise your sleeping pattern along with a dedicated personal health advisor allocated. According to Gartner, 274.6 million wearable electronic devices will be sold globally in 2016, generating a revenue of USD28.7 billion⁹.

Sensing the potential, many companies have started to market wearables at much lower prices and have grabbed the attention of people in the marketplace, while others are working behind the scenes to come up with cheaper alternatives. Early signs of the adoption of wearable technology have been seen in the Indian market in the last one year. Expectedly, some start-ups are likely to follow the course of replication of existing products, while others may follow the path of innovation to come up with improved variants. As India is a price-sensitive country, the market has been deluged by affordable and lower-priced models. There is a whole spectrum of fields, across which wearable devices have made their debut in the Indian start-up ecosystem. These involve sports, entertainment, health, fitness, safety, and Internet of Things (IoT).

Changing consumer demographics adds to the quick adoption of wearables. In the last few years, people have become more health conscious, and have begun to seek a greater fitness quotient. However, lack of

time and hectic schedules are the biggest challenges faced by consumers. In today's times, the consumer is restless and is reluctant to wait. Hence, wearable technology and Internet of Things are fast becoming an integral part of the ecosystem. According to Digital Consumer Tech survey 2014, about 80 per cent Indians were most active in purchasing smart health trackers to manage their personal health.

Wearables is an upcoming market. Thus, there is no clear set of guidelines for dos and don'ts for the companies that exist in this space or the ones that want to enter this market. One of the biggest challenges that the industry faces is low awareness and lack of knowledge about wearable technology. Despite the fact that there is a significant number of wearable products being launched in the market, there remains a granule of hesitation around the adoption of this technology. Companies need to invest more time in increasing awareness about the benefits of these smart products. Another key challenge is acquisition of the right kind of talent to work on research and development. This can be attributed to the newness of the wearable technology.

In India, manufacturing of wearable devices can open a plethora of opportunities for start-ups as well as renowned technology companies. The last few years have seen tremendous growth in the wearable technology market around the world. The next few years could also see a marked difference in the IT landscape, owing to the prevailing success of this technology.



Akhilesh Tuteja

**Partner and Head
Technology
KPMG in India**

⁹ 'Gartner Says Worldwide Wearable Devices Sales to Grow 18.4 Percent in 2016', Gartner, <http://www.gartner.com/newsroom/id/3198018>, accessed on 2 February 2016

Opinion

Changing landscape of cybersecurity in India

Background

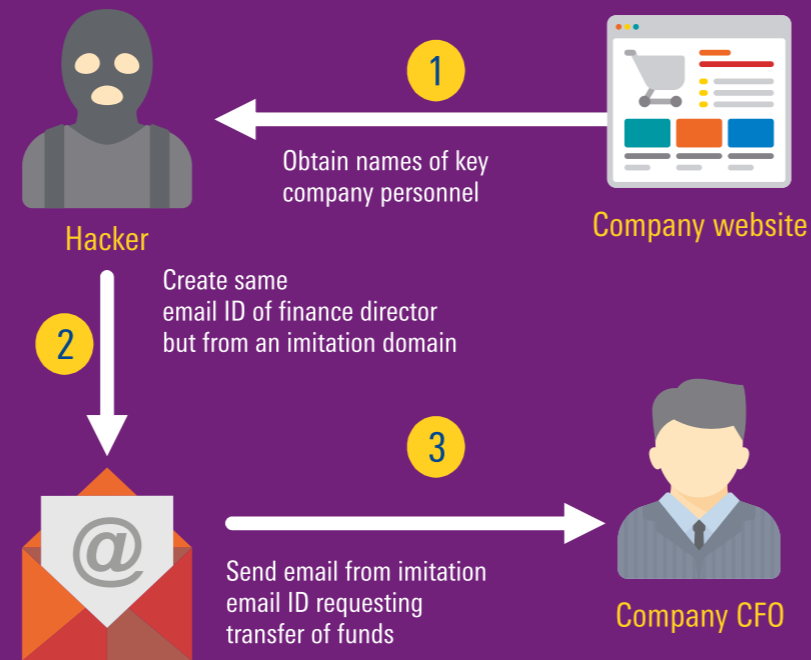
With changing technology, the types of crime are also evolving. In the past, fraudsters used to forge documents and swindle funds, but now, technology has opened up more options for executing fraud, giving rise to borderless cybercrime. KPMG in India's Cybercrime Survey Report (2015) revealed that 94 per cent of the respondents from Indian organisations feel that cybercrime is a major threat to their business.¹⁰

Recent trends in cyber attacks

Cybercrime has various forms, and is classified based on the means, modus operandi or the type of attack. Some illustrative typical techniques used by criminals to target corporates in India are as under:

Spear phishing

The typical modus operandi of fraudsters is to first identify potential target companies and gather information about key personnel (usually from websites, social media sites). They register a domain name that looks similar to the target's domain address. An email account is then hosted and used to send forged emails posing to be the CFO or CEO which are sent to the finance directors or managers instructing them to do fund transfer to an international bank account and charge the amount to admin expenses. Fraudsters typically target hundreds of companies with customised emails. A few corporates eventually do fall prey to this type of attack.

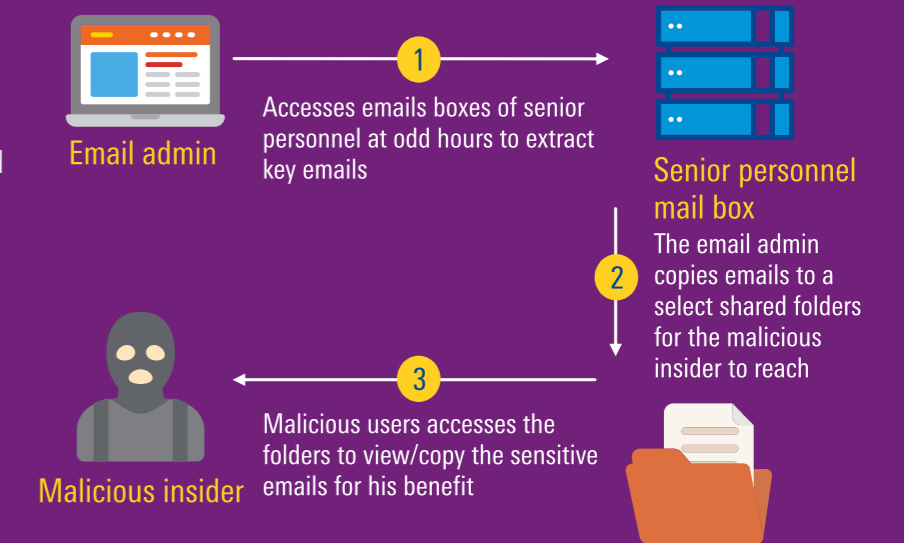


Source: KPMG in India's analysis, 2016

Corporate espionage

There have been incidents where internal employees (with high amount of access privileges) are asked to provide sensitive/business critical data such as emails, technical plans, blue prints etc., to unauthorised personnel or outsiders. These incidents are normally identified by monitoring controls (such as Data Loss Prevention (DLP) alerts, access logs etc.) or through whistleblower complaints.

The Modus Operandi



Source: KPMG in India's analysis, 2016



Sandeep Gupta

Partner
Forensic
KPMG in India

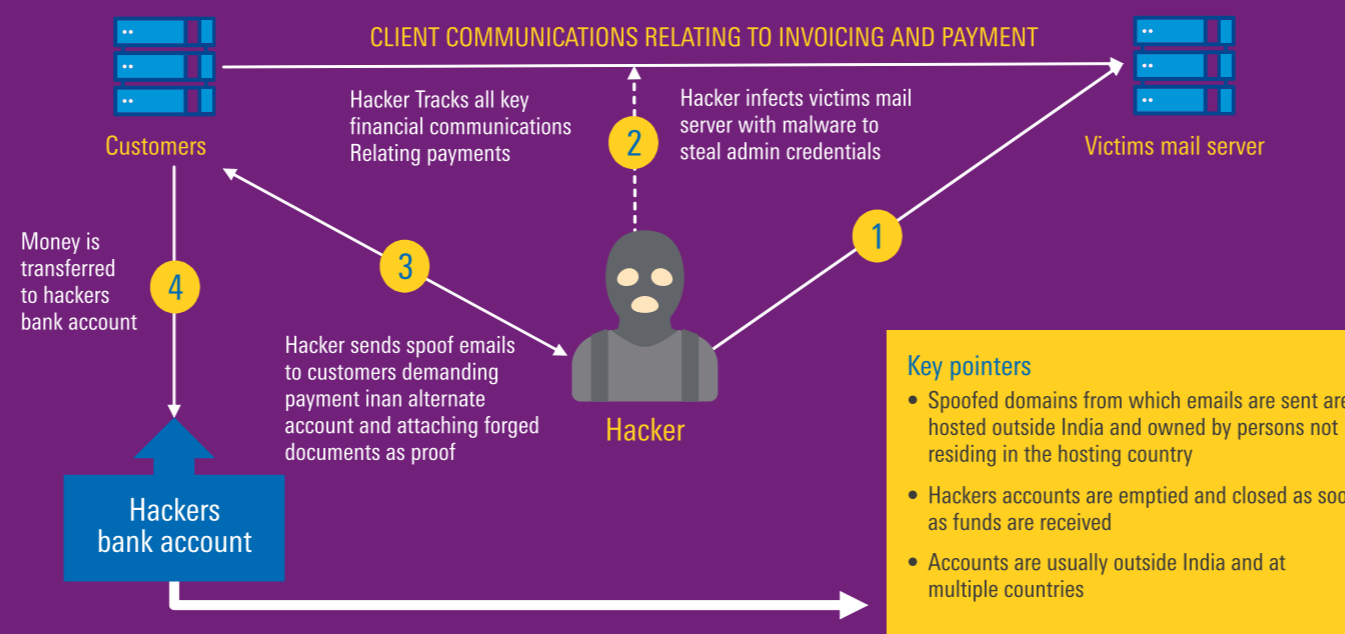
10. 'Gartner Says Worldwide Wearable Devices Sales to Grow 18.4 Percent in 2016', Gartner, <http://www.gartner.com/newsroom/id/3198018>, accessed on 2 February 2016

Fund diversion attacks

The typical modus operandi of this attack involves implanting Trojans in the computers of key personnel in the accounts receivables department or the companies' email server with a view to obtain the credentials of their email accounts. Using the Trojan, cyber fraudsters monitor the email flow between victims and customers over a period of months. At an opportune time, hackers strike by impersonating victims and directly communicating with customers asking them to remit funds into an account of their choice, which is instantly emptied out using an international laundering syndicate.

Apart from the above, multiple forms of attacks such as those using ransom ware as well as those affecting Supervisory Control And Data Acquisition (SCADA) networks and IOT devices have started gaining prominence.

The Modus Operandi



Source: KPMG in India's analysis, 2016

Conclusion

Corporates must bear in mind that cybersecurity is not a one-time activity, but a continuously evolving one that involves a whole cycle of activities that needs to be carried out at periodic intervals, including:

- The development, enhancement and assessment of a cyber-fraud policy framework
- Design and review of cyber fraud controls
- Cyber incident investigation.

While the above is a sound framework for cyber risk management, the key ingredients for the success of such a framework are:

- Boards/senior management of organisations must take cognisance of the internal threats in their organisations
- Adequate support from the management
- Development of an adequate cyber response mechanism.

Lastly, the sustainability of such cyber risk management programmes requires tireless effort to be put into the continuous awareness among end users, as an organisation is only as strong as its weakest link.

Partner speak

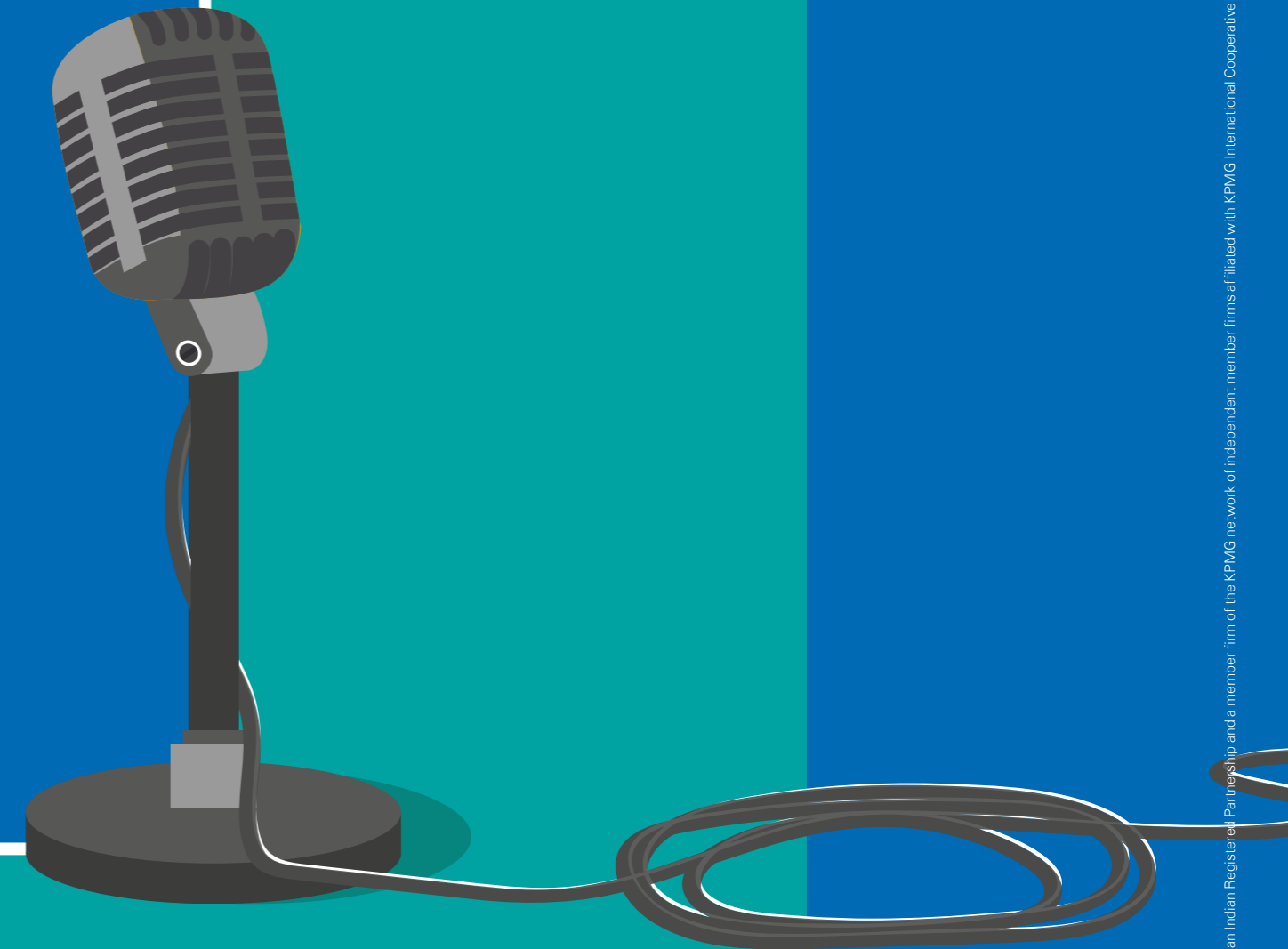
Future outlook of technology in the banking space

The banking sector is finally receiving the traction it should have. Banking products initially considered core to banks are now offered by FinTechs, especially payments, lending and investments. Robotics, artificial intelligence and allied technologies are progressively finding a home within use-cases for automated investment management, simplifying consumer interactions and targeted marketing for up-sell, cross-sell and customer acquisition opportunities. Data analytics is likely to play an integral role in assimilating unstructured data generated via social media, which could help segregate banking services that are getting commoditised. Anytime, anywhere banking, coupled with the emergence of new class of banks (small finance and payments) is expected to accelerate financial inclusion by making the last-mile access more cost-effective. To epitomise, the outlook for India is not just exciting, but transformative.



Eric Anklesaria

Partner
Management Consulting
KPMG in India



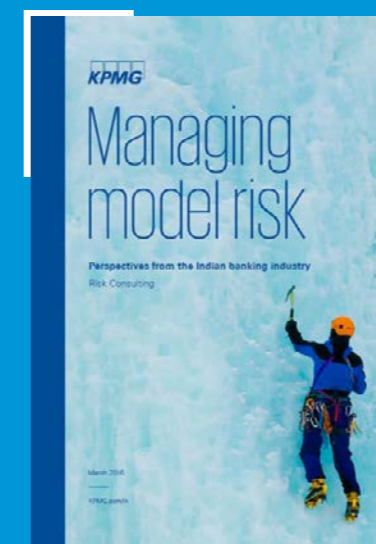
Our publications



Advent of GST: A necessity for make in India

The 'Make in India' initiative aims to propel the much needed growth of the manufacturing sector, while also aiming to raise its contribution in GDP from the current 15 per cent to 25 per cent by year 2022. Under the backdrop of this initiative, the white paper looks at the impending GST legislation as a key enabler to the success of this initiative. It drives through the point that organisations would have to get 'GST ready' and revisit their operating model and business processes. From the supply chain perspective, the paper discusses the critical elements of disruption within the network and its impact on a few sectors.

[Click here for the report](#)



Managing model risk Perspectives from the Indian banking industry

With an aim to understand the current model risk management environment in the country, KPMG in India conducted a survey titled 'Model risk management survey 2015-16'. This report contains our findings of the survey and provides key insights into the challenges faced by Indian banks in a global context.

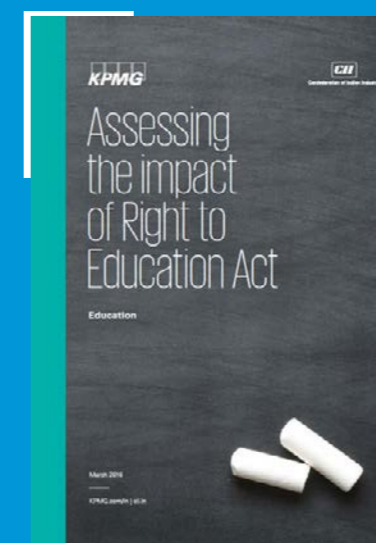
[Click here for the report](#)



The Future: now streaming

The year 2015 was a seminal year in many ways for the Media and Entertainment (M&E) industry. A year that sparked excitement and renewed hope, but at the same time a year in which reality came to roost. This was a year in which the global economy saw a big drop in commodity prices, with crude oil dropping from a high of nearly USD100 in October 2014 to below USD30 in January 2016. While this volatility rocked many economies around the world, it was a blessing for India. Lower commodity prices, lower inflation and lower borrowing costs are likely to drive consumerism in the country – benefitting the media industry.

[Click here for the report](#)



Assessing the impact of Right to Education Act

The CII-KPMG report on the Right to Education Act takes stock of the progress of the Act. Education is one of the key drivers of growth which can help develop human potential. Defining and measuring learning outcomes are likely to be an important step in achieving a quality learning environment, bringing contemporary pedagogy, faculty transformation and accountability at school level.

[Click here for the report](#)



KPMG in the news

India in a good spot compared to other emerging economies – The Economic Times¹¹

India is comparatively in a good spot compared to other emerging economies. You have got a pretty young population, you have got innovation happening and there are a lot of good things happening in India. The government is putting itself in the right direction. The risk that comes with this is that India needs long-term sustainable capital. And to attract long-term sustainable capital you need fundamental improvements in ease of doing business, improvement in governance and transparency.



Jitendra Sharma

Global Leader
Risk Consulting
KPMG in the U.S.

11. India in a Good Spot Compared to Other Emerging Economies; The Economic Times; <http://economicstimes.indiatimes.com/markets/expert-view/india-in-a-good-spot-compared-to-other-emerging-economies-jitendra-sharma-kpmg/articleshow/51706392.cms>; accessed on 6 April 2016

India's cyber doors are left wide open – The Economic Times¹²

The two biggest problems facing cybersecurity today are skill set and information sharing. Lack of information sharing about cyber-attacks and adequate skills around cybersecurity are the biggest hurdles to effective prevention from cyber-attacks in India, even as organisations around the world are working towards building a common vocabulary around cyberattacks.



Malcolm Marshall

Global Head
Cyber Security
KPMG in the U.K.

12. India's cyber doors are left wide open; The Economic Times; <http://tech.economicstimes.indiatimes.com/news/internet/indias-cyber-doors-are-left-wide-open/51692329>; accessed on 5 April 2016

A one-size-fits-all approach to change processes is counterproductive: Mark Spears – The Business Standard¹³

The more you engage and talk to employees and get them involved in shaping change, the less fear it generates.

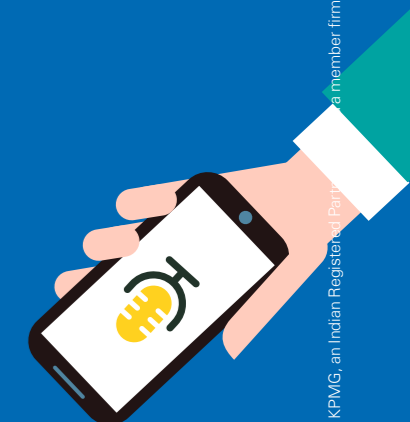
Being able to understand what is going on in your industry, your sector is really important so that you can get ahead of the curve. You almost need to be on constant change-watch to see what's going on in your market, because if you are not careful then the market you had disappears.



Mark Spears

Global Head
People and Change
KPMG in the U.K.

13. A one-size-fits-all approach to change processes is counterproductive: Mark Spears; Business Standard; http://www.business-standard.com/article/management/a-one-size-fits-all-approach-to-change-processes-is-counterproductive-mark-spears-116032000657_1.html; accessed on 21 March 2016



KPMG in India contact:

Nitin Atroley

Partner and Head

Sales and Markets

T: +91 124 307 4887

E: nitinatroley@kpmg.com

KPMG.com/in

Follow us on:

kpmg.com/in/socialmedia



Download the KPMG India application:



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2016 KPMG, an Indian Registered Partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. All rights reserved.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.

This document is meant for e-communications only. (003_NEW0416)