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Technology, Media & Telecommunications India Predictions 2016

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Foreword

Welcome to the 6th edition of Deloitte's predictions for the Technology, Media & Telecommunications (TMT) sector in India. Deloitte believes that across every global industry, knowing in advance what is likely (and unlikely) to come in the TMT trends serves as a key competitive differentiator.

This publication is released in conjunction with Deloitte's global TMT Predictions report. Deloitte India's objective with this report is to analyze the key market developments over the next 12-18 months, which are likely to have a significant medium- to long-term impact on companies operating in TMT and TMT-induced developments in other industries in India.

Our endeavor is to provide a considered point of view on key industry trends. Developments in each sub-sector are now so interlinked and interdependent that TMT executives need to be cognizant of key trends across all sectors. In some cases, we seek to identify the drivers behind major inflection points and milestones while in others our intent is to explain why we are not expecting fundamental change.

There are few other industries as volatile as TMT. It is the agent that brings in a constant stream of change to business in particular and the society at large. The regularity with which computing power of processors has made its quantum leap and the exponential increase in communication channels and devices are the best examples to corroborate this. These changes can provoke massive disruption but can also strengthen existing industries. And this is where predicting gets really interesting.

Arguably the bigger challenge in making predictions about the TMT sector is not about forecasting what technologies will emerge or be enhanced, but in how they will be adopted.

It is a reminder to readers that Deloitte's aim with predictions is to catalyze discussions around significant developments that may require companies or governments to respond. Deloitte provides a view on what may happen, what could likely occur as a consequence, and the likely implications for companies.
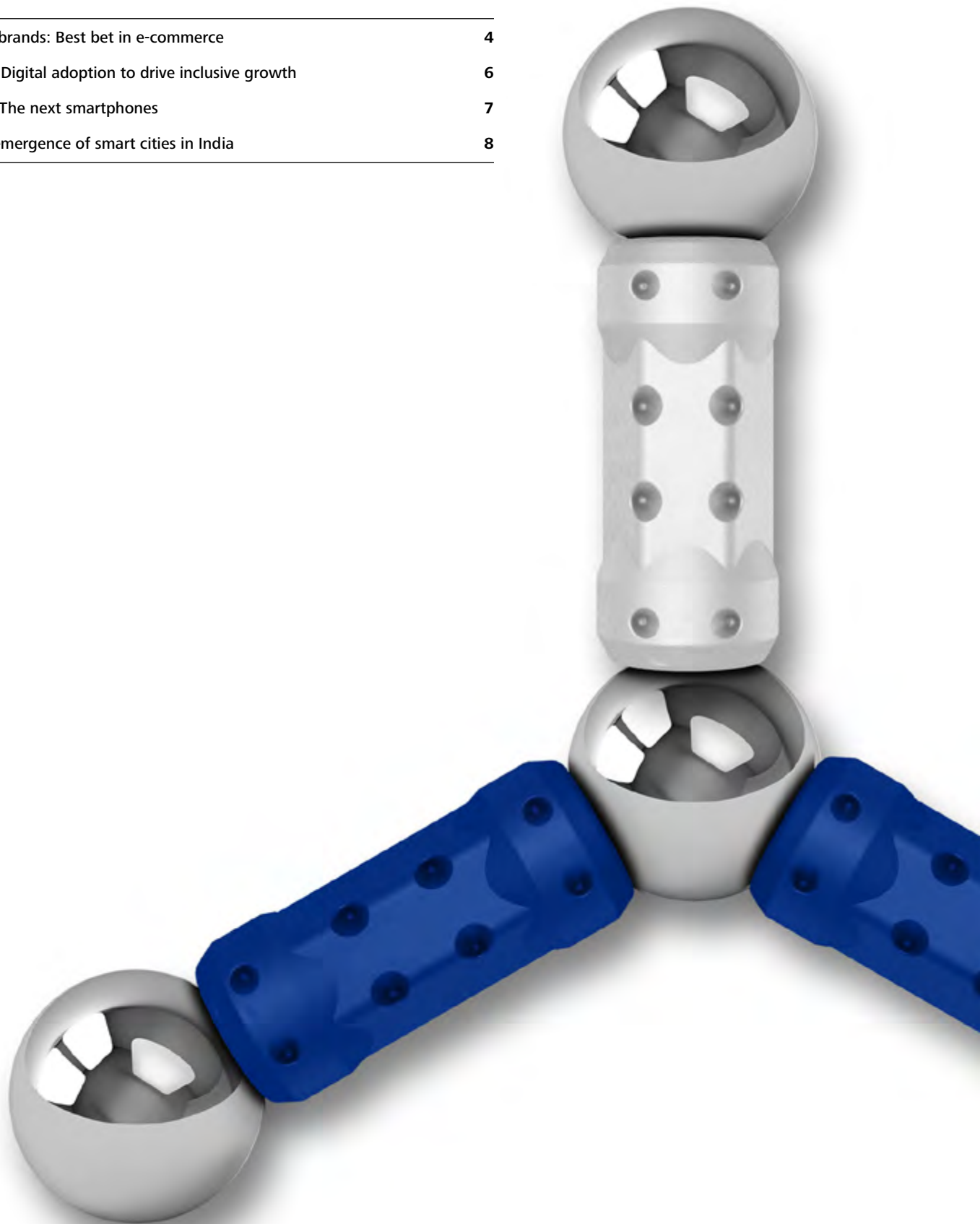
Deloitte hopes that you and your colleagues find this year's predictions a useful stimulant in your strategic thinking. We look forward to discussing these with you.

Hemant Joshi

Technology

Digital first brands: Best bet in e-commerce

With increasing adoption of e-commerce in India, we expect Digital first brands – brands that can only be purchased online – to see strong growth across categories such as fashion, furniture, jewelry, etc. These are categories where India has strong design and manufacturing capabilities, thereby allowing companies to set up an efficient supply chain and sell these products at high gross margins. Internet as a medium of sale and promotion effectively addresses a few challenges faced by traditional consumer brands. Physical retail brands need to maintain huge inventories and incur significant storage costs. Real estate costs in the country have risen so sharply that rentals in major cities in India are comparable with global metropolises like Tokyo and London. Despite such high real estate costs, the purchasing power in India is significantly lower than developed country resulting in lower cost recoveries. As per Deloitte estimates, International retailers have average sales of $120-180 per sq ft, whereas Indian retailers average $22-38. Physical retail stores also have to deal with other costs such as employing sales staff and store overheads. Considering these challenges for physical retail, Deloitte predicts wide-scale adoption of digital first brands. The advantages that digital first brands bring to the table are numerous – they have no inventory in physical stores, all the inventory is available at a centralized location therefore the supply chain is streamlined. The other advantages of an e-commerce business such as customer analytics-driven advertising, pan India reach and high gross margins set digital first businesses apart from physical retail. A massive e-tailing opportunity for digital first brands also arise from the fact that e-tailing is expected to increase ten-fold over the next 5 years.[1]

Some of the prominent digital first brands in India are:

- **Pepperfry** – The Company sells its own brand of furniture online and had a Gross Merchandise Value (GMV) run rate of ₹4 billion in 2014. It expected to cross ₹10 billion in 2015. Pepperfry has raised $128 million in total and aims to reach GMV of $1 billion in 2018-19.[2]

- **Urban Ladder** – The Company sells its own brand of furniture and has raised $77 million in total. The company was aiming to reach GMV of $100 million in 2015.[3]

- **Yepme** – The Company sells its own brand of fashion products and is targeting a GMV of $130 million in 2016.[4]

- **BigBasket** – BigBasket is India's leading online grocery portal and has launched its own brands like Fresho and BB Royal. The Company expected GMV of $300 million for FY16 and expects 1/3rd sale from its own brands.

We expect digital first brands to make significant advances in the unorganized retail segment such as furniture, budget fashion, and groceries. The lack of known brands in these areas presents a unique opportunity to the digital first players to become synonymous with a particular segment. Deloitte predicts a spurt in growth for digital first brands in these segments and we may see some of these brands going international as well.

Digital first brands are ideally positioned to make good use of customer-centric data analysis. E-commerce portals maintain a shopper's history and therefore preferences – leveraging this data, the brands can analyze and put to use numerous data points with respect to customer purchasing pattern that would be very difficult in a physical retail set-up. These data sets when analyzed could help digital first brands fine-tune product offerings and campaigns. It would become possible to customize the shopping experience of a buyer whereby he or she is offered products based on his or her past purchases. Data analytics can also help e-tailers rationalize their marketing spend with targeted advertising. The advances in technology that could revolutionize shopping would be very difficult to replicate in a physical retail model, hence setting digital first brands apart.

As individual digital first brands attain scale, they are likely to leverage physical stores and TV advertising to reach out to wider audiences and create stronger brand pull. Certain furniture brands have now set up physical experience stores, where potential customers can browse through the product range of the company and assure themselves of the product quality. The real state cost savings would make it possible for digital first brands to strengthen their IT framework and put in place cyber security measures.

Bottom line

The traditional consumer brands across categories like fashion and F&B are faced with significant challenges of high inventory costs, high real estate costs, and lack of targeted marketing. Digital First Brands will leverage the attributes of e-commerce such as contextual digital advertising, centralized inventory, online only purchase with easy returns, high gross margins, etc. We also expect digital first brands to start advertising on traditional media and establish some physical stores (experience stores) as they attain scale. With the right marketing and product strategies, these digital brands can attain significant scale in a much shorter time frame and with lower investments, as compared to traditional brands. We expect that these newer brands will get higher adoption from the younger generations who have regular exposure to the digital environment and for who brand loyalties towards traditional brands have not been formed. Digital First Brands could be a major success factor for e-commerce companies on account of high gross margins and their ability to push these brands to a wide customer base.

Healthcare: Digital adoption to drive inclusive growth

Deloitte expects that technology will play an increasing role in healthcare consultation, patient care and medicine delivery. We expect that digital adoption will be a significant contributor to the overall Indian healthcare market that is worth $100 billion and is expected to grow at a 23% CAGR to reach $280 billion by 2020.[5] Rural India, which accounts for over 70% of the population will be a significant contributor to India's incremental healthcare spend going forward on account of being significantly underpenetrated at present.

In the coming years, we expect significant adoption of e-commerce in the retail medicine sales market which is expected to reach $55 billion in 2020.[6] Medicine e-commerce is likely to see high growth as more players enter the segment with innovative business models, backed by global investors. These players would look to take advantage of the inefficient distribution system leading to non-availability of medicines and the issue of counterfeit drugs which currently plague the existing physical pharmacy business. Once the regulatory bodies provide guidelines for online sales of medicines, we expect the sector to get a further boost. Deloitte estimates that the market for pharma e-commerce will grow 10 times to $400 million in 2017.

Telemedicine provides an exciting opportunity in a country like India. The medical infrastructure in the country is concentrated in the urban areas, while a substantial section of the population lives in rural areas with limited access to such facilities. Through the use of technology, this divide can be bridged. Consultation through mobile devices using video, images, and audio channels can help patients who do not have access to good medical aid. In 2010, the Indian Telemedicine market was estimated to be ₹500 million and is expected to grow at 20% CAGR to reach ₹1020 million in FY15.[7] On back of high internet penetration over mobile and initiatives by various hospitals and governments, we expect to see significantly higher growth in the next 5 years.

The current telemedicine market is dominated by:[8]

- Narayana Health which has 900 telemedicine centers across 60 countries, 800 of these centers are in India.

- Apollo Telemedicine Networking Foundation has 115 centers across the country.

- Aravind Eye Care System has over 40 telemedicine enabled vision centers across Tamil Nadu.

- Clinic a specialized telemedicine venture started in 2012 has a presence across 25 locations in North and East India.[9]

We expect that India will adopt Electronic Medical Records (EMRs) in a big way, and though the large healthcare providers may adopt non compatible EMRs at the initial stages, we will see converging standards for EMRs. With adoption of EMRs, big data and healthcare analytics are expected to be game changers in the way ailments are diagnosed, monitored, and treated. Once medical records are available on a cloud platform, a patient's history can be made available to the doctor (or hospital) for better diagnosis. EMRs can also be used by specialists to establish healthcare trends (epidemic diseases, deficiencies prevalent, etc.) in the country and the digital connectivity can be used to disseminate critical information for prevention and cure.

A significant development in healthcare will be in the area of predictive healthcare analytics wherein the vital components of a human body can be monitored and any deviation that may result in a medical emergency is detected in advance. The entire process can work without human intervention through wearable devices that monitors a person's vitals and using the data available on a cloud platform to warn the patient in case of anomalies or even inform a doctor who can then monitor the patient remotely.

Bottom line

Online medicine sales will be a significant consumer trend that could revolutionize consumer healthcare sales across urban and rural areas. Currently, the pharmacy retail ecosystem is extremely fragmented with challenges of counterfeit medicines, non-availability of products, inefficient distribution system, etc. We expect the government to provide guidelines for online medicine sales shortly, which will provide a further boost to this sector. We believe that the key success factors here could be repeat sales to customers with long-term medication requirements and operational efficiencies.

Furthermore, we believe that digitization of health records will transform the way medical services are provided in India. The digitization of a patient's medical record will not only result in quicker treatment but will also help medical practitioners make more informed decisions. Medical records which are available on cloud platforms or with the patients can be used by private companies and the Government to establish healthcare trends (epidemic diseases, deficiencies prevalent, etc.) in the country. This will help channelize funds through various government and corporate programs in the right direction.

Wearables: The next smartphones

Deloitte predicts that in 2016, digital wearables would have experienced a significant adoption across consumer segments though it would primarily emanate from tier 1 and 2 cities.

The global sales of wearable devices is expected to be approximately 250 million units by 2018[10], while the major portion of the sales will be driven by North America and Europe, India is expected to have some participation in this segment. Approximately 60% of India's population are millennial / Gen Y individuals[11]; we believe this demographic would actively drive the future trend of owning multiple interconnected devices. This demographic consists of young professionals and university students and are incidentally a major constituent of India's 'tech-savvy' population. A key driver will be the ease of access to information (seamless integration with real-time mobile updates) that wearable technology provides. In terms of product functionality, we predict there will be a wider scope of utilities offered by wearable technology in the coming years. This may include and not be limited to, elementary e-commerce, optimized phone calling, messaging, and taxi hailing services.

According to Counterpoint Research, sales of wearable devices such as smartwatches and fitness bands totaled 100,000 units in India in the year 2014 and are estimated to grow beyond a million in 2015. Furthermore, the analysts indicated that the Indian market reached 0.30 million units by end of the second quarter of 2015, out of which activity trackers market share was 85% and smartwatches contributed to rest of 15%.[12]

The critical challenges that will be addressed by developments in wearable technology, according to Deloitte, are factors including battery life, sub-optimal functionality with messaging and emails, and the industry still being at a point of low product maturity with high associated costs. Deloitte predicts that developments in this field will not only lead to a more improved and optimized product offering but will also harbor positive adoption rates due to the utility offered by wearable technology. Pushing the current boundaries from basic messaging and emailing will ensure that wearable devices will become the ideal 2nd technology consumers may purchase.

Steering away from the smartphone-assisted usage, fitness monitors are the most popular wearable technology devices both globally and in India. Wearable devices can now track information on food and water intake, calories burnt, sleeping patterns and motivate users towards activity goals. We believe that factors such as consumer health consciousness (from mainly working populations) and relative low cost could be the major growth drivers in the area of health-related wearable technology in India. Recent entrants into the Indian fitness wearables market include: Mi, GOQii, FitBit, and Lechal. The shift towards digital healthcare will ensure for better outcomes and results, furthermore, insights from IDC indicate that by 2018 there will be large worldwide investments made into consumer-facing technologies, including apps, wearables, remote monitoring, and virtual care. Based on these points, we expect low priced wearable bands from the international brands such as Mi to see very fast adoption in the coming years.

Globally many companies are also looking at safety and security features that wearable technology can provide. Though safety devices are currently a small portion of the wearable technology pie, the focus on child and women safety could ensure that safety devices become an important part of this sector in the years to come. The high cost of these gadgets, as they presently serve the added purpose of being a fashion accessory (bracelets, necklaces, rings, etc.) has perhaps restricted the growth of safety devices.

Bottom line

We believe that fitness trackers and smartwatches will see mass adoption in the coming years and expect safety devices geared towards location tracking and emergency assist to also see significant adoption. The current moderate rate of adoption in wearable technology has mainly been due to the low product maturity and high cost.

We believe that the growth for wearables will be driven by relatively low-priced fitness monitors / bands and safety devices with GPS capabilities. For smartwatches, we believe that improved battery life and form factors, coupled with lower price points will trigger mass adoption. We believe that certain activities like email and browsing will always be a challenge on wearables. However, many activities like handling phone calls, text messaging, taxi-hailing, and elementary e-commerce could move to wearables over the coming years.

2016: The emergence of smart cities in India

Population in urban centres is expected to increase from 350 million to approximately 700 million over the next 10 to 15 years, putting severe pressure on infrastructure, city finances, roads, facilities, and resources. These urban clusters will emerge as the centres of economic growth and contribute over 75% of India's GDP by 2030. To meet this demand, the government has initiated two programs with an initial outlay of $7.5[13] billion each – "Smart Cities Mission" for 100 new cities and the "Atal Mission for Rejuvenation of Urban Transformation (AMRUT)" for the upgradation of 500 existing cities.

The 100 new smart cities have been allocated to states based on the proportion of urban population and the number of towns. Consequently Uttar Pradesh (13), Tamil Nadu (12) and Maharashtra (10) have been allocated the highest number of smart cities.[14] Selection of smart cities will happen over three years through a two-stage evaluation process to be carried out every year.

Deloitte estimates that $150 billion needs to be invested in the development of smart cities in India over the next few years.[15] Of this, the private sector contribution is expected to be 80% (~$120 billion).

Figure 1: Identification schedule for smart cities in India
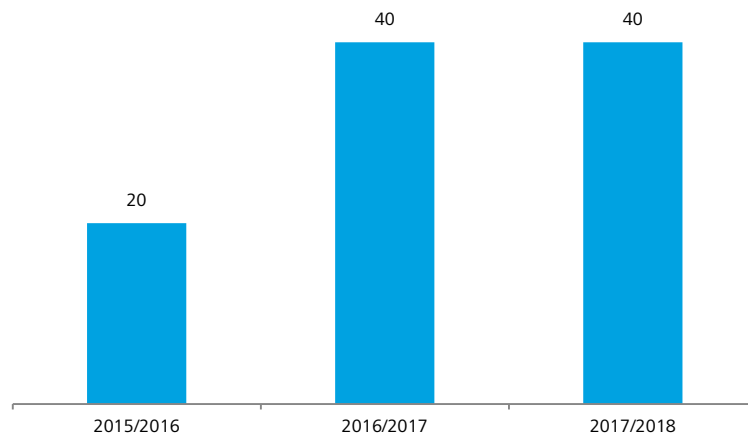
Source: Smart cities India website, Confederation of Real Estate Developers' Associations of India Website, NASSCOM

Figure 3: Expected expenditure in the development of smart cities ($ billion)
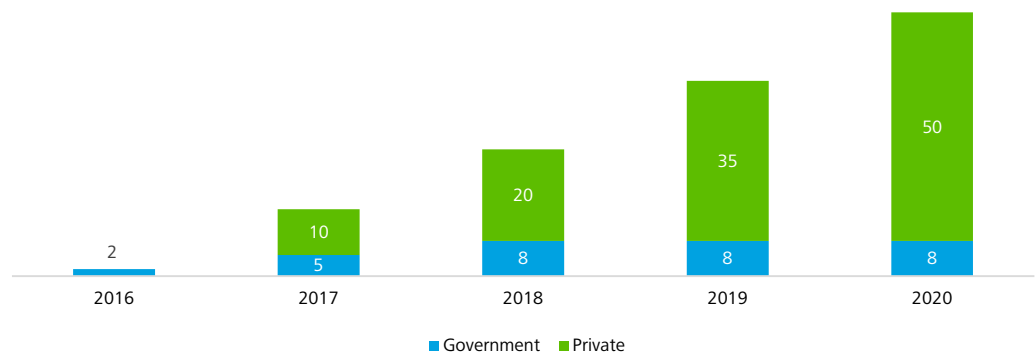
Source: Deloitte Analysis

Smart cities initiative are an attractive opportunity for the private sector across a number of areas:

- Citizen services - Digitization of records and taxation, DBT

- Safety and Surveillance – Video, policing, crime records management

- Smart Buildings – Intelligent Building Management system, digital HVAC

- Education – Remote education, online education, skills development

- Healthcare – Remote healthcare, connected devices

- ICT infrastructure – Fibre, Wi-Fi and communication equipment, backhaul networks

- Sustainability – Pollution management, disaster management, NOCs, waste management

- Energy & utilities – Smart grids, solar power plants, street lighting, water

- Smart transportation – Electric vehicles, intelligent parking, and traffic management solutions

Based on the Indian context, we believe that certain smart city product solutions are likely to see faster adoption than others driven by ease of implementation and impact.

Table 1: Expected smart cities services portfolio uptake over the next 5 years

	Short Term (< 2 years)	Medium Term (2-5 years)	Long Term (> 5 years)
SMART Energy	• SMART grid, meters • Energy Storage Solutions	• Solar rooftop systems	• Renewable energy plants
SMART Public Utility Services	• SMART street light - LED • SMART water meter • Pollution sensors, leakage detection	• Water treatment • Sewage treatment (SCADA) • SMART bins; recycling • RFID based solid waste mgt. • Rainwater harvesting	• Waste to fuel, energy, compost • SMART waste management • Ground water monitors • Waste water recycling
SMART Buildings	• Green buildings • Connected homes • SMART appliances • Security & surveillance	• Retrofitting of old buildings	• Redevelopment • Underground utility tunnels • Low income housing
SMART Transport	• Cycling/ walking tracks • Smart public transport • SMART cards, toll, parking • Traffic management • Smart vehicle tracking	• Wider roads • Intra-city connectivity/ Info. system enabled by SMART apps • Usage based insurance	• Integrated multi-modal transport (metros, railways, road etc.) • Use of electric vehicles
SMART ICT	• Wi-Fi hotspots – 3G/4G, high speed broadband	• Internet of things • Small cells	
SMART Healthcare	• Remote healthcare • Wearable devices	• Digital medical records • Telemedicine	
SMART Education	• Remote education	• Skill development	
SMART Governance	• E-governance – citizen services	• Digitization of records	• Data/ workflow management systems
Others	• Entertainment • Integrated payment solutions	• Disaster management	• Infrastructure development - high speed rail, airports

Source: Deloitte analysis based on numerous government websites and press sources

Several cities have initiated deployment of smart solutions, more are expected to incrementaly implement these solutions over the the next 5-10 years. Brownfield deployments include:

- Smart Policing (Bangalore Police) - Automated FIR registration in ~100 malls

- Smart Traffic management (Bangalore Police) – Monitoring of traffic violations on a Blackberry systems (e-challan), automated traffic monitoring and finger print identification system[16]

- Smart Public Transport[17] (Ahmedabad) - Bus Rapid Transportation System (BRTS) with Integrated Transportation Management, Advanced Vehicle Tracking System, Fleet Management, Automatic Fare Collection, Passenger Information Systems

- Smart Water Management[18] (Pimpri) - Real time data (electrical efficiency, flow, pressure level, valve operation, filter operation) is available to engineers through a SCADA system

- Smart Waste Management[19] (Greater Hyderabad) - Mobile monitoring of more than 1,000 dustbins, 2,000 solid waste management workers

- Wi-Fi Infrastructure (New Delhi) – Wi-Fi implementation was completed in Connaught Place in central Delhi. City-wide Wi-Fi implementation is currently underway

Service Providers (SPs) have initiated investments in smart city solutions including satellite-based vehicle tracking and fuel monitoring systems, mGovernance solutions, and security solutions video surveillance. SPs are also increasingly partnering with application developers and ICT equipment vendors to create a value chain for development of digital content and services.

We expect SPs to play one of the following roles in smart cities:

1. Owner – by leading / participating in a consortium which takes ownership of the end-to-end deployment and operations of the smart city

2. Operator – by managing critical components and services like NOC, Security & Survelliance

3. Enabler only – by providing telecom infrastructure and services to the city / SPV

In 2016, we expect SPs and OTTs to invest heavily in city-wide Wi-Fi networks which will be the back-bone for smart city services. Reliance Jio is likely to roll out Wi-Fi services across 50+ cities in 2016. Bharti and Vodafone are deploying Wi-Fi through a joint venture company, Firefly. Facebook is working with BSNL to deploy Wi-Fi in 100 areas in rural India, while Google has announced a partnership with the railways to provide hotspots in 400 railway stations by 2016.

Bottom line

Several challenges remain with respect to the development of smart cities including those related to project funding, project management, government decision making and policy & regulatory framework. While several cities have made incremental investments in smart solutions, the challenge will be to replicate these on a larger scale. Based on the Indian context, the relative ease of deployment, and likely adoption, we believe that the first set of services expected to be digitized in the "Smart" cities will be the following:

- Smart grids
- Public lighting and utilities
- Security & surveillance
- Government services
- Wi-Fi
- eHealthcare, eEducation, and Entertainment services

Deloitte expects that despite existing challenges, service providers will increase investments in the development of smart city solutions. Major SPs will also continue to invest heavily in infrastructure solutions relevant for smart cities (e.g., Wi-Fi, fibre networks, and backhaul networks).

As "Smart" solutions are heavily dependent on ICT, SPs will play a significant role in smart cities. In 2016, SPs will participate in (and lead in many cases) consortiums for responding to RFPs for smart / digital solutions for various city and state governments.

To achieve higher network monetization and to avoid commoditization (of their networks), SPs will lead in the development and deployment of services in smart cities. SPs have started partnering with software and hardware vendors for the co-development and POC deployments of these solutions.

Over the next 10-15 years, these cities will emerge as key technology, economic, and social hubs for the country. We believe that SPs that expect to be serious players in smart cities will take a center-forward position in leading consortiums in the development of smart cities.

Media
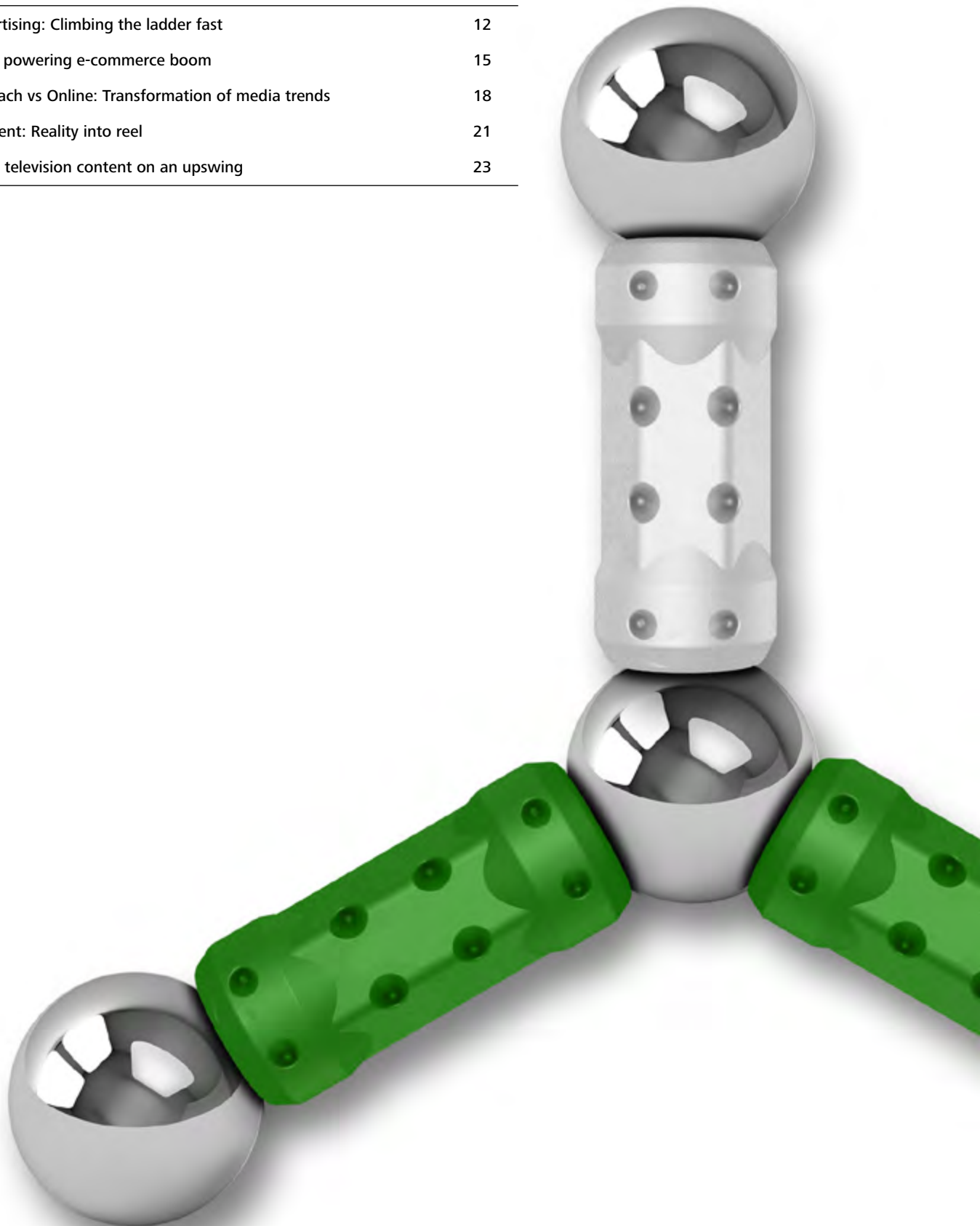
Mobile advertising: Climbing the ladder fast

Deloitte predicts that the future of e-commerce is expected to be m-commerce. Mobile ad spends are expected to grow from current 2-4% to 15-20% of the overall media expenditure by 2020.

India's digital population has grown at a rapid speed from 10 million users to 100 million in a decade and from 100 to 200 million in just three years.[20] The estimated number of smartphone users in India will be 651 million by 2019, a near five-fold jump from 140 million in 2014.[21] The number of people, who are online and on social media, are increasing with every passing day. Due to this, companies are betting big and investing a lot in India. 2015 was a big year for mobile. Google announced that mobile traffic finally overtook desktop traffic in 10 different countries. They also released the "Mobilegeddon" algorithm update to phase out sites not optimized for mobile. Mobile advertising in India has expanded from $25 million market in 2011 to $70-$80 million in 2015, growing at 60-70% annually, according to industry estimates.[22]

New trend in advertising

Southeast Asia is one of the fastest growing smartphone regions in the world. Specifically India, where broadband internet is limited and mobile penetration is high. The number of people owning a mobile device is expected to grow with more than half of these mobile users connecting to the web.

Mobile advertising in India is fastest growing among all segments in the digital advertising space. It is gaining momentum through various apps and mobile sites. Mobile advertising has evolved from SMS and call-based marketing into a more sophisticated phenomenon that includes mobile web, in-app ads, mobile search, and social networks. Google has used its latest version of the Android operating system, Marshmallow, to deliver customized advertisements on the locked screen of a smartphone, silently pushing the ad while the device is being charged.[23]

Apps operate in a similar way as websites do, but in a more intuitive and convenient way. Spectrum of apps has a larger reach and are spreading wider, ranging from apps to remind you to drink water to apps to pay your bills. 9 billion apps were downloaded in India in 2015.[24] Users spend significantly more time in apps than they do on mobile web. India ranks third with respect to app downloads from GooglePlay.[25] Globally, Android devices contributed more to mobile ad traffic as compared to iOS. Ad impressions on Android increased to 63% in 2014 and ad impressions on iOS fell to 27%.[26] This disparity is evident in India as well which is attributed to availability of affordable Android phones.

Brands are capitalizing on this consumer trend, pushing for larger in-app budgets in the coming years. The increasing number of formats being explored every day on this medium gives every advertiser a chance to experiment. Marketers are seeing mobile display ads as the new customer relationship management (CRM). It is expected that in-app advertisement would be the highest contributor followed by mobile videos and mobile ads. For example, BookMyShow expects to generate up to $4 million in high-margin advertising sales this year and add more video-related content on its website and app.[27]

Companies have also started developing advertising technologies that are tempting people with ads that mimic computer games. With increasing internet speed, brands and publishers are expected to make greater use of gamified ads on mobile devices as these are more interactive. About 10% of all Vserv campaigns are based on gamification.[28]

The consumers heavily rely on mobile and their interaction with mobile is generating petabytes of data. This data is analyzed and transformed into more targeted and customized advertisement content. 2016 will see a surge in startups offering big data, predictive analytics & audience targeting solutions to all the stakeholders in the digital adverting landscape.[30]

Figure 4: Mobile internet ad spending by year ($ billion)

2013	2014	2015	2016	2017	2018	2019
0.03	0.08	0.17	0.35	0.59	0.94	1.23
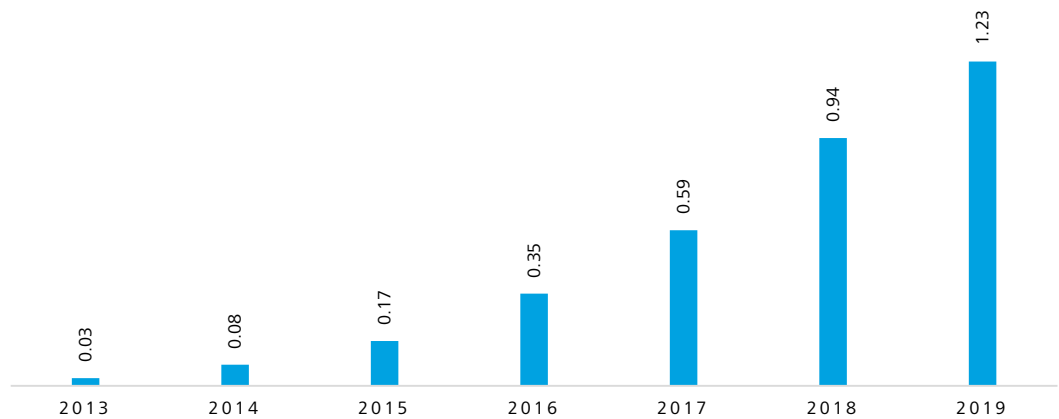
Source: eMarketer, March 2015[29]

Advertisers across industries will be able to re-target consumers based on their historical usage patterns. For instance, Facebook is focusing on capitalizing on the shift to mobile, growing the number of Facebook marketers, and making its ads more relevant and effective.

The companies have started using videos for advertising over the digital and mobile platform as they seem to be more effective than just text and images. Publishers can insert video ads within the mobile content i.e., articles, videos. This way the publishers can maximize revenue by running video ads on any display inventory, gaining five to six times the revenue for the same ad inventory. InMobi focuses on mobile displays, a category that constitutes about 50-70% of the mobile advertising market.[31]

As per the Internet and Mobile Association of India (IAMAI) study, 60% of internet users in India access the internet via their mobile phones now. The number is expected to reach 315 million by 2017. A recent report from comScore revealed 100% growth in online video consumption in India in the last 2 years. All this leads to advertisers spending their dollars on video ads on hand-held devices in 2016.[32] There are specialized companies that deliver mobile video ads programmatically. Advertisers are likely to think mobile first when making their digital advertising strategy. With more telecom operators in India ready to launch 4G services in 2016, video consumption on mobile will rise further thus pushing ad spends on mobile video ads.
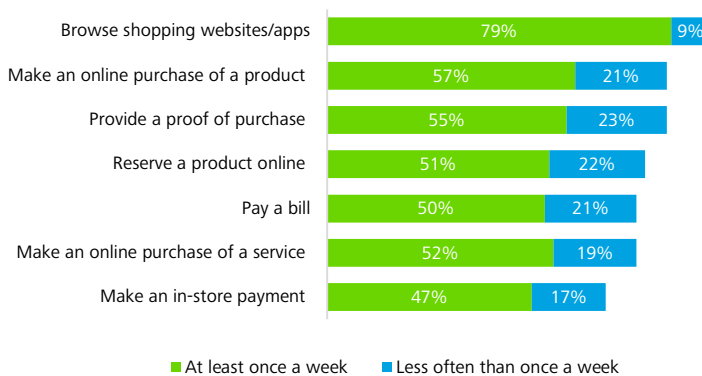
E-commerce and mobile advertising

Mobile, in its true sense, is not only an advertising platform, as its capabilities go beyond advertising. Mobile is expected to be the most influential aspect of e-commerce. Mobile has huge potential across the board from a media reach and targeting perspective. People are discovering products at costs that are lower than they've ever seen before, and they are getting products that were not available in their market before. According to IAMAI, India has overtaken the US in terms of internet users, standing second behind China. A major chunk of this growth is being driven by the mobile.

Mobile advertising is like to have couple of significant shifts:

- Not just product views but product purchases will also increase via mobile, exceeding those on desktop

- Purchases/transactions will shift from mobile web pages to mobile apps

Figure 5: Mobile usage for shopping related activities

	At least once a week	Less often than once a week
Browse shopping websites/apps	79%	9%
Make an online purchase of a product	57%	21%
Provide a proof of purchase	55%	23%
Reserve a product online	51%	22%
Pay a bill	50%	21%
Make an online purchase of a service	52%	19%
Make an in-store payment	47%	17%

■ At least once a week   ■ Less often than once a week

Snapdeal, one of India's largest e-retailers, now gets more than 50% of its sales from mobile-based transactions.[33] Besides metros, tier 2 and tier 3 cities have shown positive growth trend with increased mobile transactions. Some brands are experimenting with mobile-only and mobile- led campaigns. Once the user has installed an app on the phone, the app can send a push notification anytime it wished to do so. Just like SMS messages of earlier era, push notifications are extremely powerful as they are immediately visible on the user's screen even if the app has not been launched. Push notifications if not actioned upon are at least noticed by the user.

Flipkart and Snapdeal are amongst the biggest advertisers. They are also partnering with ad technology companies to create contextual ad content - all known as native advertising. The company in recent past had decided to roll out a platform for its 30,000 sellers to advertise on its website and mobile app.[34]

According to analysts, spending on native ads will reach $7.9 billion this year and grow to $21 billion in 2018, rising from just $4.7 billion in 2013.[35] Native ads are gaining popularity because of their non-intrusive nature and immunity to ad blockers. Even, social native advertising is growing at a fast pace. Content marketing and native ads will go hand in hand. Advertisers will have to create appealing native content to generate more clicks.

Bottom line

- With an increasing number of mobile users and app downloads, mobile advertising is growing rapidly among all segments in the digital advertising space in India.

- It is expected that in-app advertisements would be the highest contributor of advertising revenue followed by mobile videos and mobile web ads.

- The future of e-commerce is likely to be m-commerce. Not just product views but product purchases will also increase via mobile, exceeding those on desktop.

- Besides metros, tier 2 and tier 3 cities have shown positive growth trend with increased mobile transactions.

Social media powering e-commerce boom

Deloitte predicts that social media is likely to become the need of every business. Social media channels will also follow suit, leading to a rise in e-commerce transactions. Marketing efforts today rely heavily on two-way communication between the enterprise and the target audience. Social media enables this two-way communication and active engagement.

According to a Frost & Sullivan report, two out of three e-shoppers refer to social media before buying online. 56% of consumers research a brand on Facebook before purchasing while 71% go online first whenever they have a problem with a product while 90% of consumers regularly research products online before buying.[37]

India's e-commerce industry is presently pegged at $17 billion and is growing at a CAGR of 35%. It is one of the fastest growing e-commerce markets in the world. E-tailing is expected to grow by 2020 to $50 billion.[38]

The global e-commerce industry generates over $1.2 million revenue every 30 seconds with Facebook, Pinterest, and Twitter contributing $5,483, $4,504, and $4,308, respectively, and social networks contribute significantly to the growth of e-commerce business revenue.[39]

Growth statistics
Internet users increased by 44% from 2014 to 350 million. Social media users have increased by 26% to 134 million. Mobile social media users increased by 5% from 2014 to 97 million in August 2015.[40]

Indian users on an average spend nearly 5 hours online every day and social media takes up more than half of that time which is 26% more than viewing television. Social media continues to grow however, currently, barely 10% of the country is "socially active". The number of social media users is increasing approximately at a rate of one user per second, but at this rate it will be significant time before substantial population of the country becomes socially active.[41] Deloitte predicts that this will significantly change due to a behavioral shift in the mobile usage.

72% of social media users in India log into their social accounts using a handheld device[42] and this is poised for a surge as mobile internet access accelerates with the telecom operators foraying into launching 3G, 4G and hi-speed Wi-Fi services which will provide faster connectivity and users become accustomed with online shopping. Value of online purchases in India, which was $12.5 billion in 2014, is expected to grow as more and more people use services which are internet based to research products and purchase online.[43]

As mobile-based internet connections grow, which will also fuel a growth in social media users, e-marketers will have to devise their strategies factoring in the digital surge.

Influencing the marketing trends
Today, technology is advancing at tremendous speed and e-commerce companies are continuously adopting newer and innovative techniques and strategies to cater to buyers and sellers for experiencing a unique and seamless buying and selling experience.

The key trends that are being witnessed and will continue going forward are[44]:

• There will be a shift towards an inbound sales techniques rather than outbound

• The introduction of flash sales and daily deals has brought forward innovation and technology in retail industry

• Content marketing will gain prominence

• Spotlight will be on original and informative content than generic content

• Social media marketing will diversify

The increase in digital activities supported by an improved internet network will result in enormous data being populated which can be analyzed by e-commerce companies for formulation of innovative e-commerce strategies which in-turn will affect the designing and re-designing of business models and accelerated growth of the companies.

Advantages of social media marketing in e-commerce[45]

- Increase in awareness about brand recognition – social media sites are being considered as an effective medium for promoting brand's voice and content.

- Connecting with customers about product updates – e-commerce companies have social media links on their websites which allow their existing and potential customers to reach their official pages and stay updated about future promotions, product updates etc.

- Increase in customer base and higher conversion of prospective customers – with increase in advertising on social media channels by e-tailers, chances of conversion become high if there is a positive word about the product on social media as prospective customers would like to rely on reviews of users.

- Considerable decrease in marketing costs – social media marketing is a very powerful and cost effective medium to connect to the users as it costs far lesser than conventional ways of marketing.
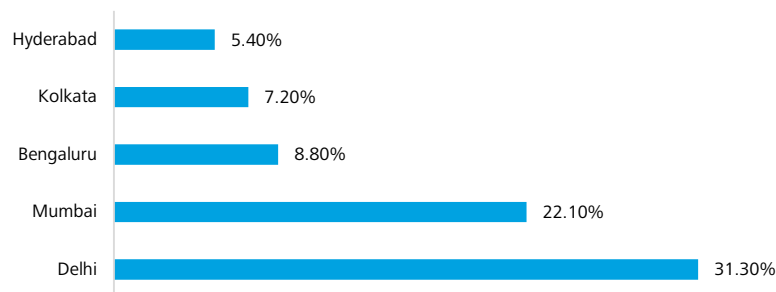
- Virtual showcasing of products – product photos, specifications, etc. can be showcased on the sites which will make it easier for the prospective buyer to analyze the quality and features of the products.

Social media is driving the spending habits in India

Social media is contributing in a very big way to channelize the online shopping trends in the country. According to annual Global Online Shopping Study, Indians, at approximately 27%, are in the forefront in accepting the idea of buying products online through social media.[46]
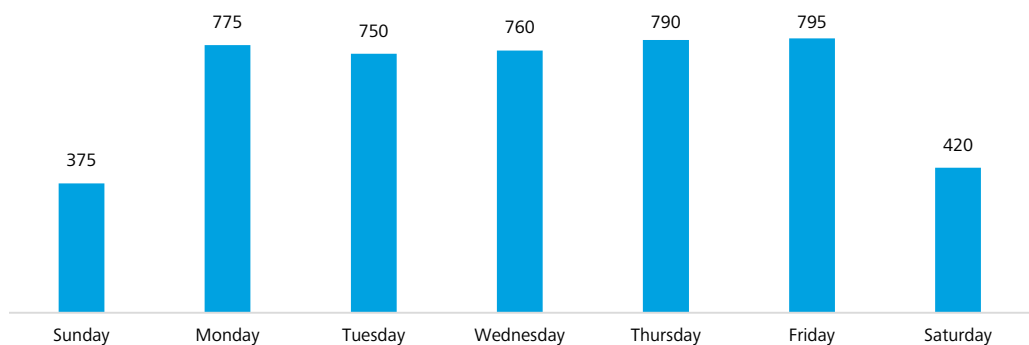
Twitter has reported that in the past one year, there have been 6.4 million tweets around e-commerce with Delhi leading the pack of the cities followed by Mumbai.[47] The maximum number of tweets have been between noon and 4:00 pm. Weekends have witnessed fewer tweets as compared to the weekdays. Daily conversation about e-commerce has continuously seen an upward trend in the past 12 months, indicating that the future of online shopping looks bright.[48]

Figure 6: Tweets about e-commerce in the past 12 months were 6.4 million

City	%
Hyderabad	5.40%
Kolkata	7.20%
Bengaluru	8.80%
Mumbai	22.10%
Delhi	31.30%

Source: Twitter report

Figure 7: Tweets by day (in 000's)

Day	Tweets
Sunday	375
Monday	775
Tuesday	750
Wednesday	760
Thursday	790
Friday	795
Saturday	420

Source: Twitter report

Bottom Line

Social media is expected to become the need of every business as it has become an international obsession from just a passing trend. Change is the only constant and marketers will have to come up with different and interesting content and concepts to connect with people.

The number of digital buyers are expected to reach 41 million by 2016[49] and with this increase, the number of social media users will also increase which in-turn is expected to fuel a surge in retail e-commerce sale from 0.9% of all retail sales in India in 2015 to 1.4% in 2018.[50]

With the continuous growth of sites like Facebook and Twitter, social media will continue to help e-commerce companies to reach its potential customer base with more content than ever.[51]

Social media will increasingly gain importance and will help the e-commerce companies in creating awareness about the products, resulting in a positive word of mouth and analyzing user behavior.[52]

E-commerce will influence marketing trends with e-commerce players continuously adopting new techniques to connect both, buyers and sellers, which will accelerate the growth of Indian e-commerce market.[53]

Indian e-commerce companies will use the power of Social, Media, Analytics and Cloud (SMAC) to boost their competitiveness and e-commerce social media battle between e-tailers will get more competitive with the companies trying to attract maximum potential customers.[54]

It is expected that companies will use automation tools better and effectively to simplify their tasks like email scheduling, contact segmentation, automated social media posting, content management, and tracking the lifecycle of consumers in marketing funnel.[55]

Broadcast reach vs Online: Transformation of media trends

Deloitte predicts that in coming years, digital platform, like digital audio and video on demand service, will see increased activity, and hence getting the right business model will be very crucial for success. The media industry in India is rapidly changing as new technologies are being deployed which span from capturing to storage and management of media, including broadcasting global content to the Indian audience. There is a wave of consumers preferring online content to the broadcast content, thus developing a new content ecosystem slowly. Instead of sitting at home and watching the broadcast on TV, the consumers prefer to go online which allow them to connect anywhere, anytime with any device.

However, online content delivery requires an efficient infrastructure to facilitate seamless delivery. With greater 4G rollout, the delivery of online content will be growing faster than ever. 4G will bring the complete transformation of the current television viewing experience and mark a shift in the control from the broadcaster to consumers. Further, low-cost smartphones bundled with low mobile tariff will help in boosting the internet usage in India over the coming years.

Over-the-Top (OTT) is likely to bring the new dynamics in digital media. People have been watching TV for decades and they will continue to watch. The

Figure 8: Average total time spent online each week for personal purposes, via any device (in hours)
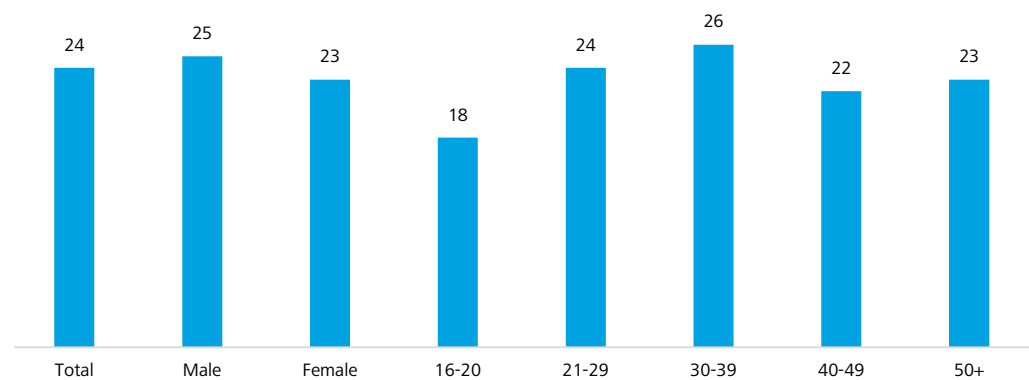
Source: Nielsen and Videology research[56]

Internet is playing a crucial role in changing the industry dynamics. India has become the third largest country in terms of internet users. The total number of Internet subscribers had reached to 319.42 million by the end of June 2015.[57] According to Internet and Mobile Association in India (IAMAI) report, India's internet economy will grow to $200 billion by 2020 and will contribute 5% to the GDP of the country. The report also mentioned that the country's internet user base will cross 500 million by 2018, with rural internet users alone being almost 210 million.[58]

However, internet access still is not evenly distributed. Rural users account for 35% of the India's internet community despite representing more than 60% of the country's population. Deloitte predicts that, with the changing environment and India becoming a digital platform, even the rural users will prefer to go for online content.

importance of direct TV is not fading from OTT, although it is bound to affect pricing model. Traditional TV services are well accepted and Direct TV is still the chosen option, but OTT is the new consumer reality which is changing ways of TV consumption for large masses. Indian online video remains largely driven by YouTube and popular social networking sites. As per the report issued by Media Partner Asia (MPA), India's active OTT video subscribers in 2014 were 12 million and is expected to grow to 105 million by 2020. Though OTT media is growing faster, there is quite a long way to go.

However, in recent years, India has witnessed the emergence of several niche players like ErosNow, Bigflix, BoxTV, etc. which are trying to gain credible subscriber base. These players have key content offerings in Bollywood movies, regional content and broadcasted TV shows with little or nil live and sports content. Various models are being tried by on-demand content providers. While currently, most of the OTT players are generating revenue through ad supported models. OTT players are devising product and service offerings that lure free users to become paid subscribers. Informa Telecoms and Media estimate that smart TV penetration in India will reach 14% by the end of 2016.[59]

A few reasons why OTT will gain market share in coming years:

- The three C's of convenience, content and control will be the driving factor.

- Rich content with affordable prices since the Indian market is price sensitive.

- Technology – speed of 4G will boost the market.

TV broadcasters are also gearing up their own OTT platforms with innovative models to increase their distribution reach towards targeted audience through e-commerce, retail, OEMs partnerships, etc.

OTT unlocks a completely new way for operators to generate revenue from video on demand (VoD), catch-up TV, and interactive applications, etc. Currently, the content industry is supported by subscription TV which is delivered through the set-top box. The emerging digital video content sector is likely to affect telecom operators' efforts in establishing robust and profitable IPTV services in the future. OTT players are keen to establish a strong presence on a variety of connected consumer electronics devices being installed in consumers' homes, given the revenue opportunity that these devices present.

Majority of OTT content is consumed through smartphones and PC and hence, at the moment, there is less demand for OTT enabled devices like internet enabled TV's, etc. However, once better bandwidth by way of 4G is available and appropriate content is programmed, this platform can see reasonable growth in the coming years. The trend is also catching up with content creators and production houses, who are looking for innovative business models to promote their content using the new platform and technologies.

Another area that would be in demand is the regional content which helps content providers to engage with their customers. According to a survey conducted by Vuclip, 78% of the users prefer watching content in their native languages.[60] English is the most commonly used language in the world as well as in India. However, Google data shows 94% growth rate in Hindi content consumption. According to a latest study conducted by IAMAI and IMRB International, regional content availability can boost the growth of Internet in India by 24%.[61]

Video on demand (VoD) is another segment which is getting established in the online media industry. Despite the low penetration, India has experienced a burst of entrepreneurial activity over the past few years. Media companies like Star, Eros and Reliance Entertainment have begun offering OTT video on demand. The latest example is Star's Hotstar app that registered 7.9 million views of Pepsi IPL 2015's inaugural match.[62] Deloitte believes that apart from traditional broadcaster, OTT VoD remains the win-win situation for both customers and service providers.

With increase in 4G services along with affordable smartphone, preference of music lovers is changing from physical to online. According to the study conducted by JuxtSmartMandate, listening to music online is third most preferred activity of urban users in country following by email and social media.[64]

Since the Indian market is highly price sensitive, the paid music concept is catching up slowly. However, with the advent of superior quality smartphones with high quality audio output, the users are willing to pay for storing songs on their devices.

Figure 9: Frequency of viewing VoD

Daily	About every other day	Few times each week	Once a week	Other
52	17	21	8	11
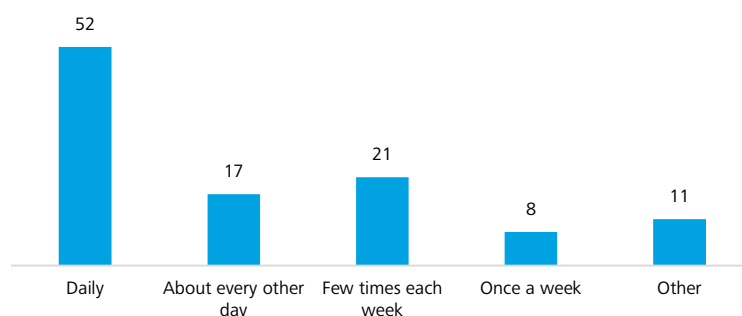
Source: Nielsen and Videology research[63]

Bottom Line

In the coming years, three factors - reach, affordability and awareness will increase the consumption of digital media in India. This increase can be credited to the improvement in mobile devices technology and internet connectivity, which has provided the viewers with the option of accessing digital media content on the go.

Music streaming is emerging as the preferred consumption mode in India. The new music listener generation in India prefers anytime, anywhere and on the go music in comparison to carrying their music with them. The subscription model is expected to increase its reach as the listeners' propensity to pay for the digital content improves with time.

Video is increasingly becoming part of other online content including news, advertisements and social media. Video streaming growth is primarily driven by over-the-top providers like YouTube.

As digital penetration increases, there will be an increase in the amount of time spent on digital platforms through mobile devices. Traditional media players have an inherent opportunity to take advantage of these trends, and the players that move quickly are likely to have competitive advantage (assuming they provide a good product) in user familiarity and loyalty.

We expect that internet user profile is going to evolve significantly over the next few years, not only opening a new challenge but also providing new opportunities for all the stakeholders involved. There could be an opportunity to create bundled offerings in which both operators and content owners benefit.

Cinema content: Reality into reel

Deloitte predicts that content will be the king and theme experimentation like biopics, reality will be the way forward in 2016 for Indian Cinema particularly Bollywood. Filmmakers will look at platforms like Digital EST i.e. Electronic Sell-through of a movie directly to consumers to counter the threat posed by piracy.

As can be seen from the table, India is amongst the major international box office markets in the world. Hollywood films nowadays release on the same day in India as their worldwide release date to cash in on this trend. Also, Indian films have successfully ventured into new overseas markets like Turkey, China, etc., which is evident from the success of Dhoom 3, PK in these countries even though they were released in these countries much after their theatrical releases in India. This only proves the point that Indian cinema has come of age and has started earning a fair share of the revenues in the international market as well.

The change in fortune for Indian Cinema has happened due to experimentation with different genres by Indian filmmakers, and this is expected to continue in future. The Indian audience has also opened up to new genres and recent success of films like Badlapur, NH 10, Talvar are ample proof of the change in taste of moviegoers. In the coming days, we are likely to see more experimentation from the filmmakers in terms of depiction of reality, biopics on the lives of famous personalities like M.S. Dhoni, Saina Nehwal, and Sanjay Dutt. Entry of international film studios such as Warner Bros., Disney, Foxstar Studios into Indian market has also changed the way a movie project is planned and executed in India. Local film production can leverage the experience of these international studios to expand their international reach and incorporate enhanced project planning and cost controls. Even regional segment, which so far has been dominated by South Indian cinema, has shown an upswing with major investments by film studios in Marathi, Punjabi and even to an extent Gujarati cinema. The case in point here is the successes of regional films like Lai Bhari in Marathi and Gujjubhai the great and Chello Divas in Gujarati. This trend is likely to continue in 2016.

Table 2: 2014 Top 20 International Box Office Markets – All films ($ billions)

No.	Country	Value	No.	Country	Value
1.	China	$4.8	11.	Brazil	$0.8
2.	Japan	$2.0	12.	Italy	$0.8
3.	France	$1.8	13.	Spain	$0.7
4.	UK	$1.7	14.	Netherlands	$0.3
5.	India	$1.7	15.	Turkey	$0.3
6.	South Korea	$1.6	16.	Venezuela	$0.3
7.	Germany	$1.3	17.	Argentina	$0.2
8.	Russia	$1.2	18.	Sweden	$0.2
9.	Australia	$1.0	19.	Taiwan	$0.2
10.	Mexico	$0.9	20.	Indonesia	$0.2

Source: IHS, local sources[65]

Though Indian film industry remains the largest in the world in terms of number of films it produces, it continues to be small in size in terms of revenue. Low ticket realization and occupancy levels still continue to plague the Indian film industry. The growth of multiplexes has improved the movie-going experience for Indian audiences and has led to increase in per-ticket realization. This trend is likely to continue with rising urbanization and growing disposable incomes. A new trend called megaplex-gigantic cineplexes with 10 to 15 screens, which is already popular in Western countries, is slowly catching up in India as well with South India having a first brush at it. Megaplexes are an outcome of Bollywood's growing business patterns.

The country's film industry continues to lose around ₹50 billion in revenues and over 50,000 jobs every year due to piracy.[66] India is one of the top countries witnessing peer-to-peer file-sharing infringement worldwide. Though, there is no immediate solution to this malady, filmmakers are trying to counter this with increasing digitization of the movie prints. Companies such as Real Image and UFO Moviez have facilitated digitization of movies, which curbs piracy and enables increased release of films across the country — a game-changing phenomenon whereby 60% of box-office collections are realized in the first week of release of a movie. Thereby, a big-budget Hindi movie, which would have been released earlier with 400–500 prints, now enjoys a wider release with almost 1,000–1,500 prints being distributed. Further, with an increasing demand for an alternative source of entertainment for the home audience, filmmakers will look at Digital EST and online VOD (video on demand) transactions to garner revenue. These different ways of taking cinema to the audience beyond the big screen will increasingly generate more money and start making up for the DVD business, which is dying worldwide.

Bottom line

• Deloitte expects that content will be the king going forward and filmmakers will be more than willing to experiment with novel ideas in terms of content e.g. come up with new genres like depiction of reality, biopics, etc. Big budget films with Formulaic content approach will still remain in demand, but small budget films with strong and novel scripts made specifically for the multiplex audience will gather momentum. Megaplexes with 10-15 screens will make their entry into more tier 1 cities and this in turn will result in greater experimentation with the content catering to different tastes of the movie goers.

• Increased digitization of the movies will result in less costs per print which will encourage the filmmakers to access the market with more prints.

• More number of Hollywood movies will release on the same day in India as their international release date to tap into the huge potential of the Indian box-office market.

• Filmmakers would start marketing of films through social media platforms keeping in mind the increasing popularity and impact of the online reviews written by the movie fans.

International television content on an upswing

Deloitte predicts that international television content popularity is likely to increase significantly. As digitization in tier 2 and tier 3 cities picks up, TV viewers will be able to access niche channels resulting in increase in viewership of English entertainment and movie channels. Channels will differentiate themselves by broadcasting content along with the US and Western Europe which will attract customers to pay premium subscription charges for these channels.

International television content in India

The international television content on Indian television has significantly matured over the years. Gone are the days when the best and the most popular shows in the western world never made it to India. Shows which premiered in the international markets in the early to mid-2000s either never made it to Indian television screens or are now being broadcasted after years of their release. Critically acclaimed shows like Breaking Bad, Boardwalk Empire, Sopranos, etc. which were great hits of the early 2000s are now being broadcasted in India, and only on premium channels like HBO Hits and HBO Define. However, all this is about to change as English entertainment channels bring the best international shows to Indian Television.

Table 3: Top ten English TV shows currently being broadcasted in India

Sr. No.	Name of the show	Channel
1	Game of Thrones	HBO
2	Quantico	Star World
3	The Big Bang Theory	Zee Café
4	Modern Family	Star World
5	Grey's Anatomy	Zee Cafe
6	Castle	Star World
7	MasterChef Australia	Star World
8	Anger Management	Comedy Central
9	Sherlock	AXN
10	2 Broke Girls	Star World

Source: Times of India[68]

Evolution of international television content on Indian Television

Since the turn of the decade, the broadcasting of international content on Indian television has improved by leaps and bounds in terms of the quality of shows which have come to Indian shores. English entertainment channels in India now broadcast the best and the most trending TV shows in the US. Shows like Game of Thrones, House of Cards, Quantico, How to get away with murder, etc., have pioneered a new way of storytelling. The television writers have also evolved over the years and television, as a mode of broadcast, enables them to build complex characters and story lines over many episodes and seasons. Shows like MasterChef Australia have also become very popular in India which shows the variety of content that the Indian audience now appreciates. Comedy shows still remain an all-time favorite with shows like The Big Bang Theory, Modern Family and 2 Broke Girls having a high viewership in India.

English entertainment channels in India

With increasing viewership and the variety of content available, there has been a significant increase in the number of English entertainment channels in the country. Star World was the pioneer in the market for broadcasting international content and its channel portfolio constitutes Star World, Star World Premier and FX. HBO launched HBO Define and HBO Hits which telecast the latest episodes of popular TV series like the Game of Thrones along with the US with just hours of timing difference required for editing. It also broadcasts the greatest shows of HBO from the earlier years which were never earlier telecasted in India. Star World Premier is Star's offering for premium international content where shows are telecasted along with the western countries with difference of few days. These channels are subscription based channels where viewers have to pay premium rates for watching these channels as they offer popular content along with country of origin of these shows. These channels are able to charge anywhere between ₹40 and ₹60 per month to their viewers due to their popularity. This shows that the Indian viewer, who generally is perceived to be not inclined to pay premium rates, is willing to pay high subscription charges if the content is popular and appealing.

Table 3: Top ten English TV shows currently being broadcasted in India

Name of the Channel	Monthly charges on al-carte basis (in ₹)
Star World Premier HD	60
HBO Hits and HBO Define	79
Star World	30
Zee Café	20
AXN	30
FX	20
Colors Infinity	20
Comedy Central	20

Source: Times of India[68]

Geographical divide

The popularity of international television content is clearly evident in the tier 1 and a few tier 2 cities in the country. But the majority of the population which resides in most of the tier 2 and tier 3 cities in India may not be so glued to their television screens when a new season of the latest sitcom in the US is premiered as most of the viewers either don't know what is on TV or they are fans of Hindi or regional content being broadcasted. Since a large part of the population resides in tier 2, tier 3 and rural India, this geographical divide in viewership impacts the TRP of the English channels resulting in lower advertisement rates. Advertising rates of a ten second spot on Star World or Star Movies, channels that depend on advertising revenues, is usually in the region of ₹2,000 to ₹2,500, while Star Plus, the flagship Hindi general entertainment channel of Star is able to sell a ten second spot for ₹150,000 to ₹200,000.[71] The English entertainment channels must try and tap into this market to further increase their viewership which may result in attracting better advertisement revenue. This may be done with specific marketing campaigns targeted at the tier 2 and tier 3 cities as well as broadcasting shows which are specially developed for the masses, with the core of the channels' content philosophy at heart. Until these markets show increase in viewership, which may result in increase in advertising income, subscription would continue to lead the way for English entertainment and movie channels to generate revenue.

Impact of digitization

In the pre-digitization scenario, analog cable operators in most of the tier 2 and tier 3 cities were able to provide 70-100 channels resulting in cable operators going for Hindi or regional entertainment and movie channels. Further, broadcasters would place an English entertainment channel in the top band in a few select cities where they were experiencing high viewership. Consequently, many English entertainment channels being placed in low bands resulted in bad picture and sound quality as well as lack of knowledge about these channels. With the onset of digitization in the country, all this is about to change as English entertainment channels will be available in digital quality picture and sound throughout the country. Viewership of English entertainment channels has increased by 40% since November 1, 2012, when the first phase of digitization was initiated.[72] This is good news for broadcasters as it may result in increase in revenues.

Bottom line

- The quality and availability of international content on Indian television will continue to improve.

- The premium channels will move more towards a subscription-based business model as compared to a prevalent adverting-based model.

- Digitization will decrease the geographical divide in terms of availability of English entertainment channels which may result in increase in viewership.

# Telecommunications

2016: The breakthrough year for 4G in India
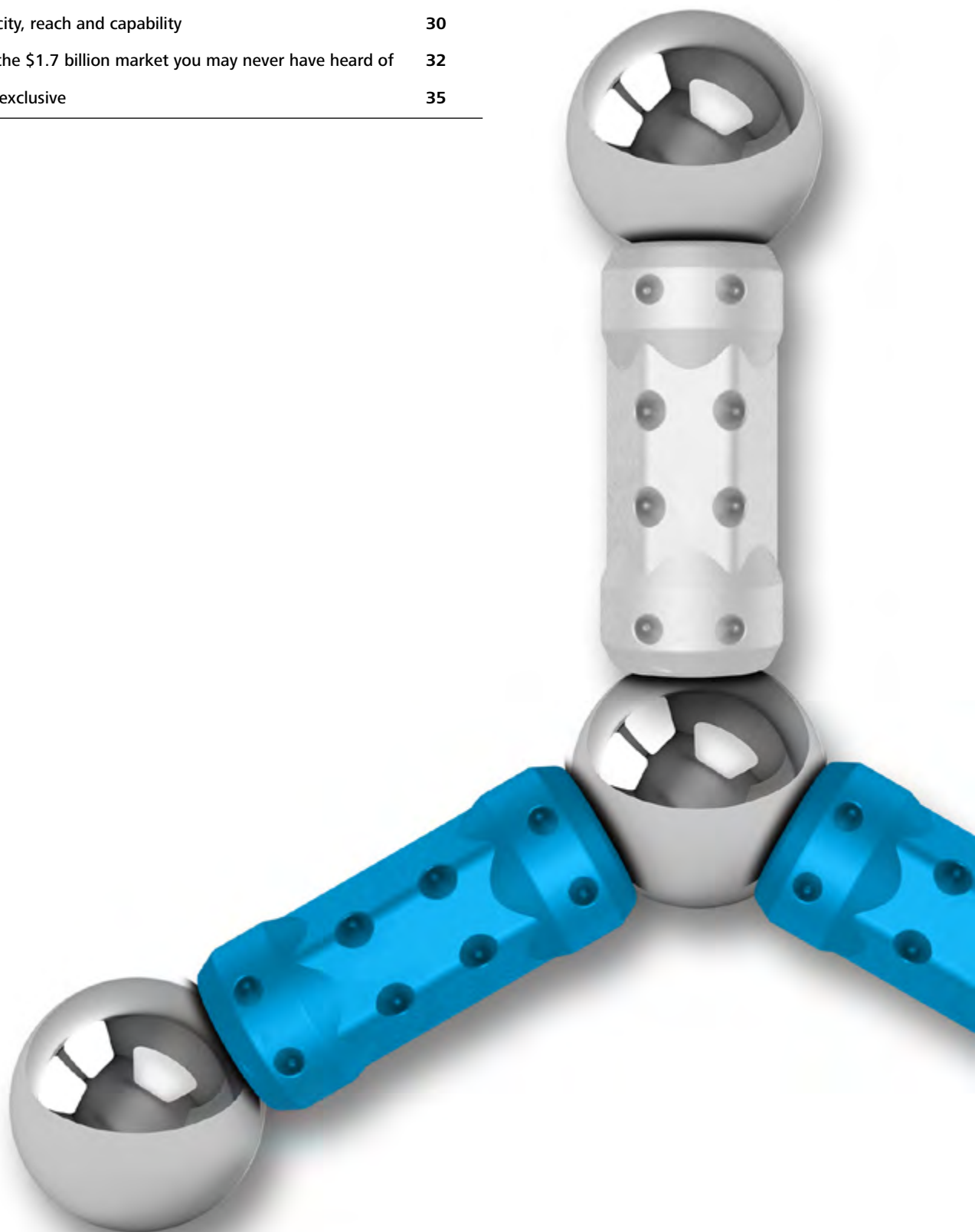
016 is set to be the year that would herald the 4G revolution in India. Deloitte's recent annual survey of mobile consumers in India indicates that more than a third of the Indian subscribers that don't subscribe to 4G currently are likely to do so in the next 12 months. While 4G services have been present in the country since April 2012,[73] in many ways 2015 was the year when the push for mass rollouts across major markets gained momentum. Aggressive 4G rollout plans from major operators and the growing demand for 4G enabled handsets point towards 2016 being a breakthrough year to kick-start the 4G revolution in India.

Figure 10: Likelihood of subscribing for 4G services

Q. Do you currently subscribe to a 4G/LTE* network, whether you pay an additional cost for it or not?
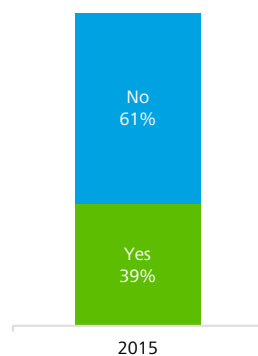
Q. How likely are you to subscribe to 4G/LTE in the next 12 months?
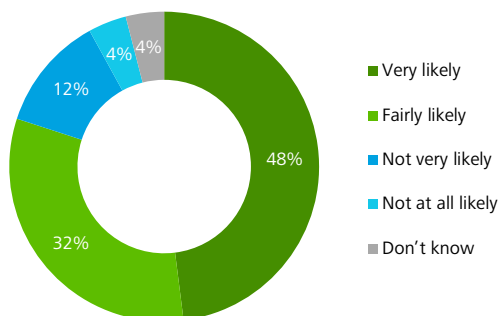
Source: Deloitte Global Mobile Consumer Survey - India, May - Jul 2015 (Base: All phone owners: 1729; those who do not subscribe to 4G: 1142); *LTE - Long Term Evolution

All the leading operators have indicated their 4G ambitions for 2016 - Airtel has grown its coverage to over 300 cities and will continue expanding its 4G footprint while also adding nearly 23,000 high speed data sites over the next 3 months.[74] Vodafone, though cautious in its approach till now, plans 4G in metros by March 2016[75] while Idea is all set to expand its 4G footprint to 750 towns by June 2016 across 10 telecom circles.[76] Add to these the proposed pan-India launch of Reliance Jio, and it looks certain that 2016 will be the year of the 4G.

The push for 4G has led to a huge CapEx outlay[77] on technology upgrades and a staggering ₹1,100 billion worth of spectrum being auctioned last year. Further, the Department of Telecommunications (DoT) is planning fresh auctions that may even surpass the record sales in March last year, with spectrum in the lucrative 700 MHz 4G band likely to be up for grabs for the first time ever.[78] What makes the recent auctions by the DoT stand out is the fact that, for the first time, operators have been given the freedom to deploy services of their choice on the acquired spectrum without any restrictions on what band is to be used for a given service (2G, 3G or 4G). Spectrum auctions aside, leading telecom operators would also continue targeting smaller operators driven by the need to have the right spectrum to deploy 4G. For example, while Airtel has recently acquired 100% stake in Augere Wireless[79] (which holds 4G spectrum in Madhya Pradesh) Idea acquired Videocon's spectrum in UP (West) and Gujarat in a deal worth ₹33 billion.[80] Over the course of the next year, large operators will continue to explore acquisition opportunities.

The migration from existing infrastructure to a 4G ecosystem might seem a capital intensive endeavor now, but such transformation will have a net positive impact for operators. In terms of capacity, initial 4G deployments will deliver a 1.2 times improvement over high end 3G configurations with considerably larger gains when compared with earlier 3G systems. Small cell topology improvements in 4G would be enough to provide the capacity boost needed to mitigate demand peaks. LTE (Long Term Evolution) is also 55% cheaper than HSPA and 92% cheaper than EDGE (Enhanced Data rates for GSM Evolution) in terms of cost per MB – thus, offering the same data pack over 4G LTE network would effectively reduce the cost for the operator compared to 3G/HSPA (High Speed Packet Access) network.[81]

From the subscribers' point of view, devices are no longer expected to be a constraint for 4G adoption. There are currently over 25 smartphone brands that offer 4G enabled devices in the country and ~10 of them have a model available for less than ₹6000.[82] Prices are expected to decrease even further making such devices viable for the price conscious subscribers. It is important to note that close to 9.3 million smartphones were shipped in India in October 2015 with 4G-based devices accounting for more than half of the share.[83] This was the first time that 4G smartphone shipments for a month exceeded 3G shipments and the trend is expected to further improve in favor of 4G devices in the coming months. Over the next 3 years, it is expected that the current 5 million 4G smartphone base would increase to close to 180 million, thereby pushing Indian operators into a mad-rush to ensure that they are ready to capture the windfall.[84]

Indian operators, like their global counterparts, are expected to bundle high speed connectivity with other services and content to further grow ARPU (Average Revenue per User). Content will play an important role as operators try to create a compelling value proposition to retain customers. Among existing operators, Airtel has a headway in this regards with its Wynk platform but other operators are expected to follow suit and create a comprehensive ecosystem of content and service offerings. While some operators might build their own content platforms, we expect to see other operators striking partnerships with independent content providers/platforms (like Eros Now, Hotstar, etc.).

Our research suggests that subscribers are aware of various services offered by their operators and are willing to subscribe for additional services like TV/Film streaming and public Wi-Fi hotspots.

Figure 11: Likelihood of subscribing for additional services

Q. Which, if any, of the following would you like to add to your existing package with your mobile operator?
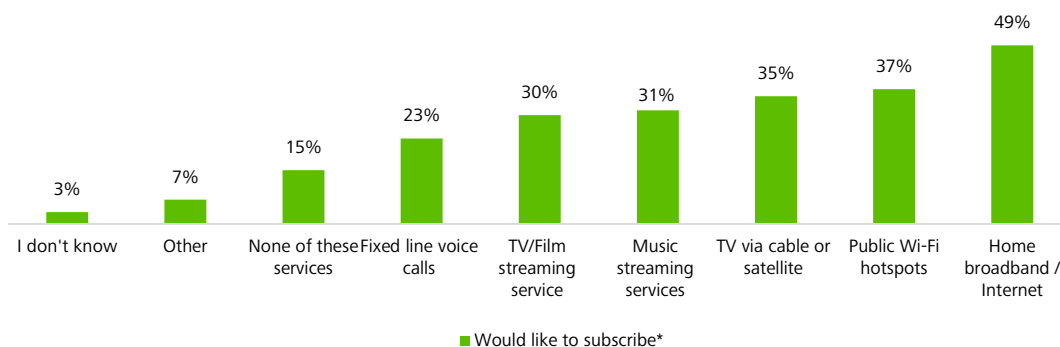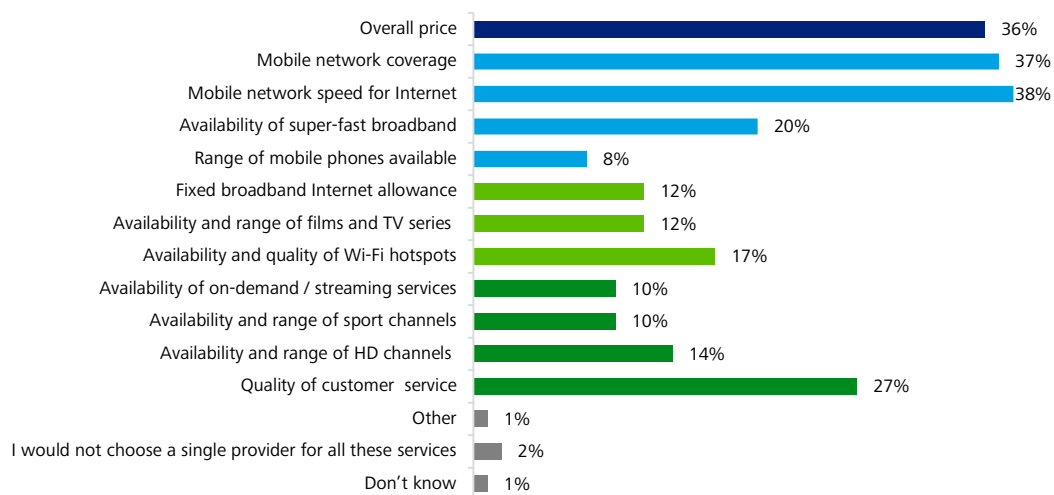

■ Would like to subscribe*

Source: Deloitte Global Mobile Consumer Survey 2015 – India, May - Jul 2015 (Base: All phone owners: 1729; * Respondents that don't yet subscribe)

For prospective subscribers, price is an important parameter to consider while opting for such services. However, mobile-related factors like coverage and speed are the most significant ones. We expect more focus from the leading operators to be around lucrative pricing as well as well publicized network transformations, and there are signs that operators have started taking steps in these directions. The new

entrant is widely expected to capture subscriber base from existing operators by following an aggressive low-price strategy. On the network front, we saw the market leader take steps towards large scale network transformation, sending out personal mailers to subscribers to make them aware of such changes as well as creating a platform to track the same.

Figure 12: Factors for choosing a triple/quad play service provider

Q. If one single provider was to offer your mobile phone contract, fixed broadband/Internet and TV services,
which of the following would be the most important when choosing this provider?

Factor	Percentage
Overall price	36%
Mobile network coverage	37%
Mobile network speed for Internet	38%
Availability of super-fast broadband	20%
Range of mobile phones available	8%
Fixed broadband Internet allowance	12%
Availability and range of films and TV series	12%
Availability and quality of Wi-Fi hotspots	17%
Availability of on-demand / streaming services	10%
Availability and range of sport channels	10%
Availability and range of HD channels	14%
Quality of customer service	27%
Other	1%
I would not choose a single provider for all these services	2%
Don't know	1%

Source: Deloitte Global Mobile Consumer Survey 2015 – India, May - Jul 2015 (Base: All phone owners: 1822)

For now, we see operators continuing to focus their price-specific value proposition on offering 4G at 3G prices, and later, with the entry of new players, it is expected that data might be offered at prices that are as low as 1/5th of current prices.[85] However, we do expect to see some innovative pricing strategies being implemented once the competition further intensifies in the Indian market. Taking cues from global markets, some of these strategies are likely to focus on dynamic pricing (based on location, time or network load), segmentation based pricing and guaranteed quality of service based pricing (to retain high value customers).[86]

Bottom line

Deloitte expects all operators to be susceptible to the proposed 4G offerings of new and existing competitors, with metro areas and high-end subscribers being especially vulnerable. Future growth in ARPU is likely to be driven by data rather than voice services, as seen in Figure 13. We expect new entrants to aggressively focus on extracting a minimum ARPU of 300-400 from 4G users by enticing them to use more data.[87]

Figure 13: Future revenues to be driven by data

Data vs. Non-data revenue[1]

₹ per active user per month (all services)[2]
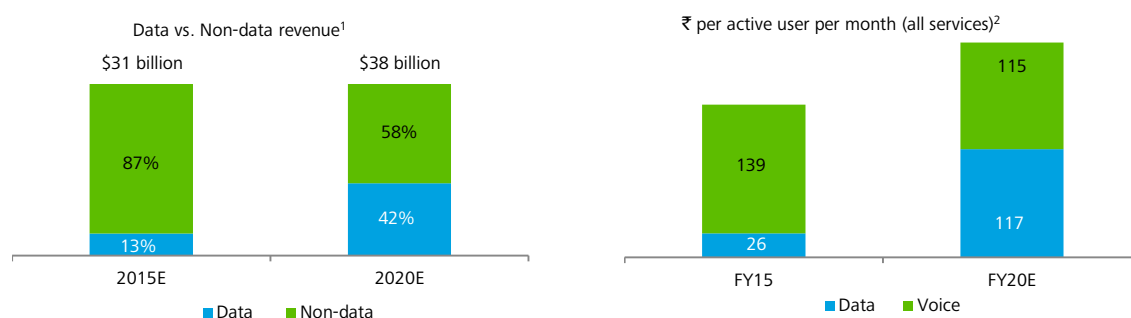
Source: 1 Religare; 2 TRAI (actual) and Deutsche Bank (estimates)

Higher smartphone penetration and better speed at affordable prices are expected to trigger a seven fold increase in data consumption over the next 5 years (approximately 2.4GB per active user per month by 2020).[88] Growing demand for data would also lead to a larger demand for sites, generating new business for tower companies. However, since 4G networks are inherently more efficient, operators who optimize their network well are likely to benefit from a favorable network cost structure in the long run.

Deloitte believes that with growing competition and a data-driven subscriber base, operators would try to create tangible differentiation strategies to protect against churn and drive growth. Initial differentiation can be evolved into new revenue-generating assets, e.g. a 'marketplace' wherein an operator would build a platform for third parties to directly offer content, collaboration, and services to its subscribers. Monetizing these new assets will require a renewed focus on customers - generating better customer insights, providing superior experience, and enhancing the level of engagement. As a first step, more operators would start creating a single view of their customers using multiple services, which would result in simplified billing for customers and targeted marketing opportunities for the operator.

In their quest for new revenue opportunities, operators will form mutually beneficial partnerships with content and service providers, who will benefit from easy access to the operators' subscriber base and infrastructure (e.g. billing). Given that the current OTT players in the instant messaging space are already mature, it might be difficult for telecom operators to invest in such endeavors. However, they are expected to look elsewhere in the OTT space for growth and collaborations. Segments like music, video and games would see operators make alliances or build own capabilities to ultimately offer a more holistic ecosystem for subscribers.

Advertisers are likely to spend more money on video ads on hand-held devices in 2016 and will think mobile-first when making their digital advertising strategy. With 4G adoption picking up, video consumption on mobile will rise even more, thus pushing ad spends on video ads.

If 4G roll outs planned for 2016 live up to the promise of delivering data speed that is substantially better than that currently offered by 3G, 2016 will also trigger a monumental push for many other related industries – mobile payments, m-commerce, gaming and others.

VoLTE / VoWiFi: Capacity, reach and capability

Deloitte predicts about 100 carriers worldwide will be offering at least one packet-based voice service at the end of 2016, double the amount year-on-year, and six times higher than at the beginning of 2015.[89] We estimate that approximately 300 million customers will be using Voice over LTE (VoLTE) and/or Voice over WiFi (VoWiFi); double the number at the start of the year and five times higher than at the beginning of 2015.[90] In India, with the proliferation of 4G services and new entrants choosing 4G VoLTE over traditional voice an estimated 50 million subscribers will move to 4G and hence VoLTE.

Figure 21: VoLTE and VoWiFi operator deployments and users, 2014-2016
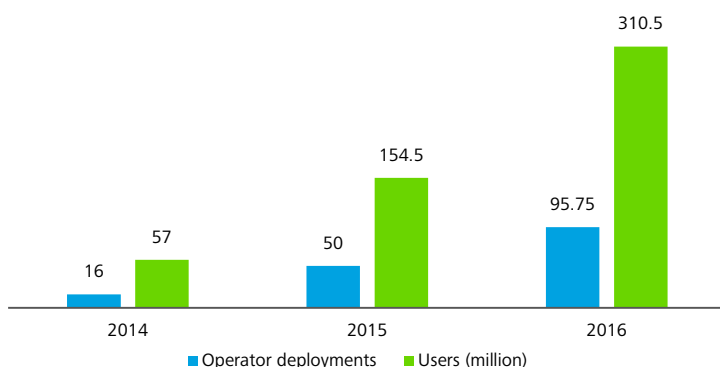
Source: Deloitte Global, 2015

For most carriers launching VoLTE or VoWiFi in 2016, the primary motivation is likely to be to increase network capacity and extending the reach of their voice services. While VoLTE or VoWiFi technologies enable a range of value-added services, such as video calling, we expect the majority of carriers to exploit this additional functionality in later years, with the initial focus being on coverage and capacity.

In a spectrum deficient market such as India, VoLTE is expected to increase capacity, allowing operators to move voice calls off 2G and 3G networks and onto the LTE (4G) network. The often lower frequency spectrum that is freed up can be reused for data services. Additionally, since the LTE interface is more efficient at carrying calls relative to traditional calls: it can support up to twice as many voice users in a given bandwidth (per megahertz).

VoLTE also offers a range of enhancements over standard voice. For example it offers the ability to use a data connection while being on a call, superior voice call quality, faster call connection, fewer dropped calls and the ability to switch from a voice call to a video call. However while early adopters in 2016 are likely to be most fervent users of this additional functionality, many users may not notice the variation in voice quality. We also expect a reasonable share of users unhappy with their initial experience with 4G VoLTE in India on account of patchy network infrastructure and a limited selection of VoWiFi and VoLTE enabled handsets.

In India, we do not expect many carriers to use VoWiFi initially, to extend coverage for indoors to help improve customer satisfaction with the operator and lessen the likelihood of churn in 2016. However, certain carriers may offer VoWiFi to enterprise consumers as the majority of mobile calls are made indoors (at least twice as many smartphone users make voice calls indoors than outdoors).[91] Since providing good internal coverage can be technically complex and expensive, particularly for lower floors and internal rooms, carriers in India may not invest much. In India, call drops has been an issue since late 2014 and is expected to continue despite launch of new services as operators focus their efforts on new service launches, especially 4G.

VoWiFi may at first glance appear very similar to VoIP, but there are two critical differences. Firstly it is a network operator managed and controlled service, which, for users, should mean that the call is less likely to be dropped. So other activity on the same network is less likely to disrupt a voice call than would be the case on a VoIP call, which is carried on a best efforts basis. For carriers, being in charge of the service also means that they have more control over the revenue stream. Secondly, VoWiFi offers native calling: there is no need to open an app to make or receive calls. A VoIP call can only be received when that specific app is open.

VoWiFi extends reach at a relatively low marginal cost. Operators need to deploy an IP multimedia subsystem (IMS). If they already have VoLTE, this will already have been paid for. In some regards VoWiFi may even reduce operator costs, as calls placed on a smartphone would be carried over the consumer's broadband network, freeing up some cellular capacity.

Further, VoWiFi can reduce cost for an operator as it enables traffic to be off-loaded to another network. The cost savings could be significant: a US carrier with 15% VoWiFi penetration and a national footprint could enjoy spectrum and capacity savings per year of approaching half a billion dollars.[92]

Long term, most operators will likely launch both services as a natural evolution towards IP-based-only communication. However, short term some carriers may decide to launch one of the two services first. The decision will likely be influenced by three main factors: the potential cost savings, the need to improve indoor coverage, and the customers' interest in enhanced communication services.

Bottom line

Operators need to weigh up benefits against the cost of deploying an IMS.[93] One analyst firm has calculated that the cost of deploying and operating an IMS solution could be up to $10 million with a VoLTE subscriber base of around 2.5 million. If the base rose to 75 million, there would be significant economies of scale, with the annual operating cost estimated at about $45 million.[94]

In the short term, device and network interoperability may be a barrier for uptake. VoWiFi and VoLTE support varies by handset, and each carrier has enabled a different set of these devices. In some cases, VoWiFi may be supported on a consumer all-you-can-eat tariff, but not on the enterprise tariff. Furthermore, packet-based calls may require calling and called devices to have the same software version enabled. For VoLTE, both parties need to have compatible handsets, be in 4G range, be subscribed to 4G (rather than just having 4G capability), and, for a period of time, be on the same network.[95]

Carriers should also bear in mind the potential cost implications for incorporating emergency service support (providing a user's location) into VoLTE and VoWiFi. The IMS signaling system needs to support the Emergency IMS subsystem to ensure that the call goes through. Consumers have high expectations for voice quality: operators should only launch VoLTE and VoWiFi services when the service is stable: for example a VoWiFi call cannot roam onto a circuit-based 2G or 3G call when out of Wi-Fi range: it can only move onto a VoLTE network. Furthermore, the network should be configured so as to prioritize voice packets. Real-time monitoring and auctioning of network performance KPIs such as bit-rate, latency, jitter and packet loss are also recommended. Operators should include a fallback for non-native VoLTE calls, or calls in areas where 4G coverage is lacking or limited.[96]

Carriers should determine how best to advertise the two services so that consumers value the quality of voice call and perceive the enhancements provided as value added services. This could counteract the declining trend of smartphone users not making phone calls and moving to OTT alternatives.

Used smartphones: the $1.7 billion market you may never have heard of

India, currently the third largest market for smartphones with estimated annual sales of about 143 million units in FY 2016, is estimated to generate about $1.7 billion for its owners at an average value of about $90 in FY 2016, with outright sale or trade-in of approximately 20 million smartphones.

Growing at a CAGR of about 32% till 2020, the used smartphone market is forecasted to grow to about 46 million units generating an estimated $4 billion for its owners. In spite of accounting for about 16% of the first hand smartphone units sale in India, the average re-sale value of smartphones in the Indian smartphone market is expected to decline to about $85 from the current $91. The used smartphones represent an increasing share of the market: up from 4% in 2012 and 6% in 2013.

India is expected to become the world's second largest smartphone market by 2017 behind China, selling an impressive 174 million units[97] from about 120 million units in 2015. China will continue to be the largest smartphone market selling nearly 458 million smartphones in 2015, rising steadily to 505 million in 2017.

We expect to see similar global trends in India. At least 10% of premium smartphones ($500 or higher) purchased will have three or more owners before being retired, and will still be used actively in 2020 or beyond.

We would expect trade-in value per device to vary by model and market, but across the 20 million used smartphones that are likely to be sold in 2016, we estimate that the average value per device will be about $90 much lower than the global average of about $140.

4G services roll-out will positively impact the second hand smartphone market on account of upgrades. Since limited 4G handsets are currently available and even if they are available, they may not operate across all the operational spectrum bands. This will thus push first time 4G adopters to new smartphones and trade their existing devices that they had recently upgraded to. We expect 4G supported second hand for smartphones to kick in as early as Q2 2016.

In India, we estimate a very miniscule percentage of the second-hand devices to be traded back to the manufacturers unlike global predictions where we estimate about half of these devices to be traded in to manufacturers or carriers in exchange for credit toward a new smartphone. We estimate a larger share of the devices to be sold online privately, to retail shops or to second-hand device specialists in India.
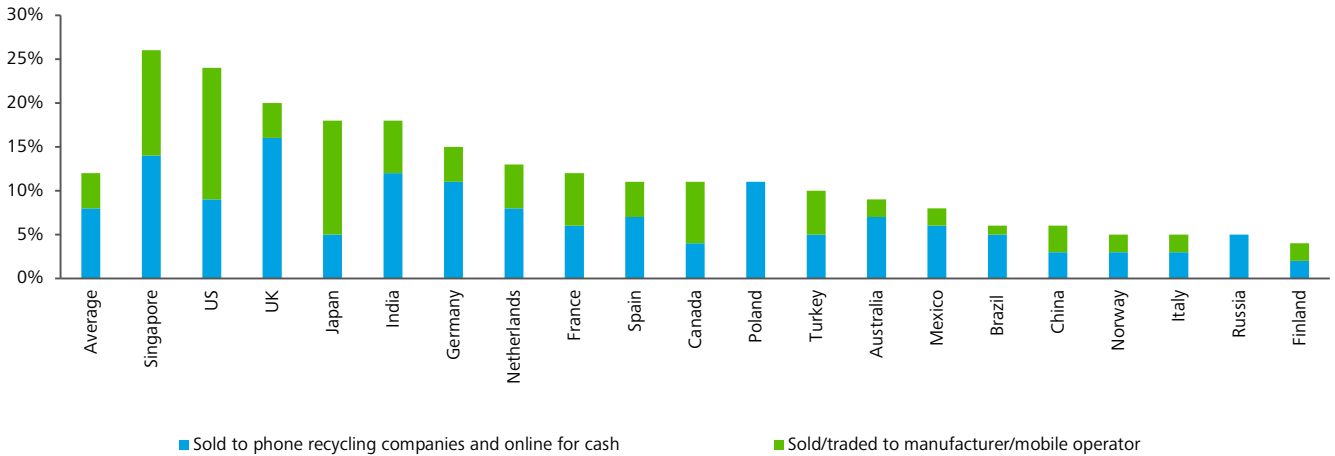
Deloitte expects the practice of selling smartphones could well accelerate through 2020 as both consumers and suppliers increasingly embrace the practice of selling or acquiring second-hand smartphones in a more organized manner.

We expect the market for acquiring second- (or third- or fourth-) hand devices to become steadily more organized in India. Specialist companies will emerge, which forecast trade-in values after one, two or more years of ownership, similar to the equivalent service providers in the automobile industry. Also, we expect entry of recyclers and organized refurbishers in the Indian market to offer refurbished second hand phones with warranty and guarantee.

In many developed markets the range of options for selling a device is steadily growing, ranging from companies specializing in acquiring second hand-devices to manufacturers offering leasing options.[98]

We expect there to be significant variation in the practice of trading in smartphones by market. Deloitte member firms' research in 20 markets found that as of mid-2015 approximately 12% of all consumers sold their smartphones (see Figure 16). Of these two-thirds sold their smartphones outright, and a third traded them in with an operator or device manufacturer. In Singapore, about a quarter of smartphones were traded in; in Norway, Italy, Russia and Finland, only 5% were sold or exchanged. In India about 18% of the smartphones were traded-in, of which about 5% sold it online and about 7% sold it to a retail shop for cash. A third of iPhone users sell their phones as compared to 18% of Samsung users. Deloitte expects that over time, most markets should see a steady increase in trade-ins.

Figure 16: Respondents who sell or trade in their previous smartphone

Legend: ■ Sold to phone recycling companies and online for cash   ■ Sold/traded to manufacturer/mobile operator

Source: Deloitte member firms' Global Mobile Consumer Survey, May - Jul 2015 (Weighted base: Respondents who own or have access to a smartphone: Australia (1,582), Brazil (1,547), Canada (1,414), China (1,729), Finland (726), France (1,407), Germany (1,491), India (1,729), Italy (1,589), Japan (952), Mexico (1,623), Netherlands (1,639), Norway (846), Poland (1,602), Russia (1,462), Singapore (1,850), Spain (1,755), Turkey (860), UK (3,039), US (1,458))

We would expect emerging markets to be net acquirers of second-hand smartphones. Some consumers may prefer to buy refurbished, used premium models in lieu of new budget brands, possibly cannibalizing sales of new devices from t¬hose budget manufacturers.[99]

For smartphone vendors the direct benefits of a thriving second-hand market are three fold. First, encouraging an annual replacement cycle among a growing number of users may increase annual sales. Second, the availability of a formal second-hand market could make their devices more affordable to customers with smaller budgets, without having to create less profitable, budget variants of their devices. Used, refurbished premium smartphones may be more appealing than brand new unbranded devices. Third, there would likely be a margin in processing used phones, similar to that earned by car dealers.

Bottom line

The smartphone is expected to be one of the primary consumer electronics device by revenues and units: over 143 million units expected to sell in 2016. Its second-hand market is a significant market in its own right and likely to grow at a CAGR of about 32% over the next 5 years.
The biggest potential implications are for handset vendors, who are likely to become more and more aware of the residual value of their devices. The forecast future value of their products is also likely to become an increasingly important factor in the purchase decision. This may affect not just consumer sales, but also those made by enterprises, for which total cost of ownership should factor in the expected resale value once smartphones are returned.

A possible consequence of a more organized second-hand market is the potential for cannibalization: some consumers may elect to buy second-hand, rather than new, as is the case with the car market. However, some of those that purchase a second-hand device may then decide to purchase new next time round, and they may also purchase new accessories and apps for their used smartphones. Furthermore, familiarity with a used device may act as a brand 'gateway' and encourage the purchase of other devices from the same vendor.

Carriers and retailers in developing markets such as India, should analyze the merits of offering a wider range of refurbished, second-hand premium handsets. Consumers aspiring to acquire premium brands are preferring used aspirational brand. The ideal $100 handset may not necessarily be a new one.
Insurance companies should evaluate the robustness of each smartphone model, and also how well each device may be treated as insurance companies consider opportunities presented in the second hand smartphone market.

Some smartphones are locked to specific networks in the international market. Customers unaware of this may end up purchasing a device that they cannot use on their current network. Furthermore, there are multiple variants of each device, which may not be obvious to consumers. 4G models, for example, support different frequencies of 4G, with the earliest 4G phones supporting relatively few frequencies. So someone purchasing a second hand 4G phone may find that the phone is not compatible with the 4G frequencies owned by their current operator,[100] especially for phones that are being resold in different countries or regions.[101]

One of the biggest threats that impact the growth of the second hand smartphones continues to be sale of stolen devices. Consumers scouting for a high quality smartphone at the lowest price, may not go through the hassle of checking if the smartphone has been stolen.

Companies purchasing smartphones for their staff should evaluate how long they should own their phones to optimize the total cost of ownership. It could be that replacing (and trading-in phones) after two years is more financially attractive than keeping them for three, for example.

The rise of the data exclusive

Deloitte predicts that in 2016, 26% of smartphone users in developed markets will not make any traditional phone calls in a given week. We call these individuals 'data exclusives'. They have not stopped communicating, but are rather substituting traditional voice calls for a combination of messaging (including text messages), voice and video services delivered 'over the top'.

Similar trends are observed in India, with voice calling falling drastically over the past 2 years since 2013. Respondents who preferred voice calls as mode of communication declined from 81% in 2013 to 61% in 2015 (refer figure 17).[102] We expect this trend to continue over the next 2-3 years as operators as well as smartphone vendors push for 4G.

In recent years there have been two contrasting trends with voice. First, mobile voice volumes as measured in minutes of usage per subscriber per month have remained almost constant despite addition of ~100 million subscribers between March 2013 and March 2015, likely because of the increased affordability of voice minutes, the rising take-up of voice centric packages.

Second, most smartphone owners' usage patterns have become more data-intensive, with the proportion of time spent on non-voice activity increasing considerably; in some markets, such as the UK and the US where it has reportedly trebled.[103]

Figure 17: Respondents who used voice calls to communicate in the last 7 days
Question: In the last 7 days, in which, if any, of the following ways did you use your phone to communicate with others? (Voice calls)
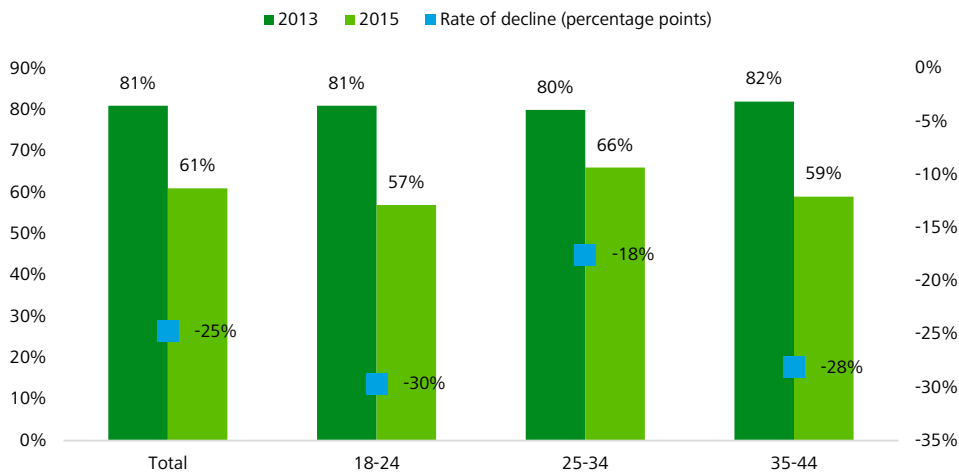
Source: Deloitte Global Mobile Consumer Survey - India, May - Jul 2015 (Base: All phone owners 2013: 1791, 2015: 1822)

What may be happening is a polarization in the usage of voice on mobile: some users are increasing their voice call volumes; at the other end of the scale a growing proportion are not using voice at all.

A key catalyst for the fall in the proportion of people making voice calls on their smartphones has likely been the proliferation of options to communicate without speaking. Phone conversations with friends and family, for example, have been supplanted to an extent by social networks, which offer multiple enhancements to a standard conversation, such as the ability to broadcast to friends and family, incorporate emoji and append photos, videos and hyperlinks. Social networks, IM (instant messaging), and VoIP have seen the highest growth in usage penetration. Social networks, IM, email and other forms of messaging also offer control over when to respond: they are asynchronous, while voice conversation obliges a real-time response. VoIP witnessed a steepest growth. Growing from 26% to about 48%, piggy backing on the introduction of VoIP calling by most of the IM apps as well as the social networks.

It is not just private conversations that are being usurped. An app can replace the calls we would have formerly made to order a take-away, request a taxi, book an appointment or make a bank transfer.

Over the same period of decline in voice calls, most forms of data communication, such as IM , social networks and even the now 'old school' email, have become more popular.

As of mid-2015, the most popular data service used was social networking, with 75% usage, closely followed by instant messaging, email and text messaging.

The age group with the largest proportion of data exclusives as of mid-2015 was 18-24 year-olds, 31% of whom (in developed countries) reported not making phone calls on a weekly basis, compared to the average for adults of 22%. In India the trend has been steeper. The 18-21 year olds are already using modes of communication other than voice. Rate of using voice calls has declined significantly in the last 2 years declining from 81% in 2013 to about 57% in 2015[104] (figure 17).

IM has seen the most rapid uptake among consumers since 2012, with the proportion of adults using IM more than doubling from 27% in 2012 to 59% in 2015 globally, and volumes escalating from seven trillion in 2012 to 43 trillion in 2015.[105]

Figure 18: Respondents who used voice calls to communicate in the last 7 days
Question: In the last 7 days, in which, if any, of the following ways did you use your phone to communicate with others? (Smartphones)
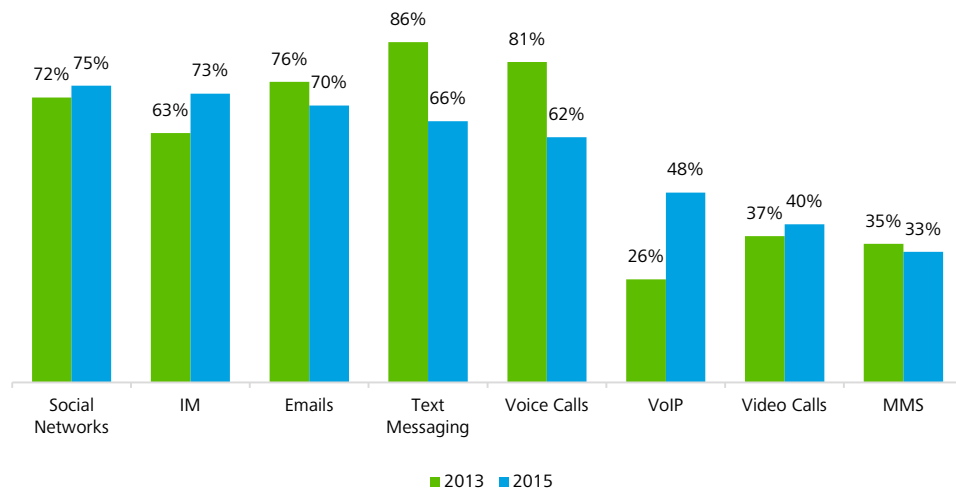
Source: Deloitte Global Mobile Consumer Survey -, May - Jul 2015 (Base: Smartphone owners: 2013: 1791, 2015: 1729)

However, in India, we have seen that the highest perceived increase in communication services usage is for instant messaging with about 68% agreeing to use IM more frequently than others over the past year (figure 19).

In 2016 and beyond, the proportion of data exclusive 18-24 year-old users may rise further still, given that upcoming members of this cohort are likely very accustomed to messaging. Their first communications device as young children may have been a touch-screen MP3 player or a Wi-Fi tablet, which can readily be used for messaging, apps and other types of data functionality, but lacks a cellular modem, and therefore has no capability to make traditional voice calls.

As children progress to their first smartphone, they may not be provided with a voice and data package in order to control costs, and they may use this device exclusively over Wi-Fi, with only occasional use of OTT voice technology. By the time a teen has the funds to pay for a regular mobile phone package that includes voice calls, he or she may regard messaging as the default mode of communication and they may instinctively avoid making voice calls.

Figure 19: Respondents who communicate via mobile devices

Question: For each of the following ways of communicating via your mobile devices overall, please say whether you do them more, less or about the same as you did 12 months ago.
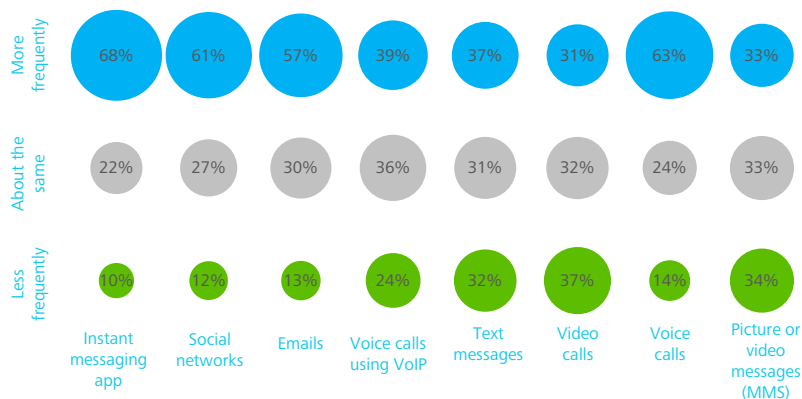
Source: Deloitte Global Mobile Consumer Survey - India, May - Jul 2015 (Base: who have used their phone to communicate in the last 7 days: 1716)

Bottom line

The original premise of the smartphone was that it would enable voice and data communications via the one device. In the last decade the data capabilities of smartphones have steadily ratcheted up, in the form of bigger screens, faster connectivity, more powerful processors, superior cameras and improved graphics capabilities.

The most obvious implication for carriers is that offering monthly plans with very large or unlimited voice minutes may not be equally attractive for all customers. If 20% are talking less across user groups, they will likely respond only to other inducements, perhaps 'all you can app' messaging plans or simply better data networks. Depending on the alternative to cellular voice, increased use of messaging, especially with pictures or video, may help drive consumers to bigger data plans, enhancing average revenue per user (ARPU).
A decline in voice call traffic could also enable carriers to reduce the quantity of spectrum assigned to voice, and make this available for data.

Smartphone vendors should consider whether a decline in voice usage may encourage a rise in sales of large smartphones or foldable devices to reduce normal usage form factor. One of the barriers to large smartphone adoption had been the obtrusiveness of the device when making calls, but if less calls are being made, larger screens are arguably preferable for messaging applications.

Any entity communicating with the public should consider how best to adapt to these trends. Government should determine whether to focus on app-based communications rather than call centers; fast food purveyors might want to focus on improving app-based or web-based ordering, on the assumption that customers would rather type than talk when placing orders.

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