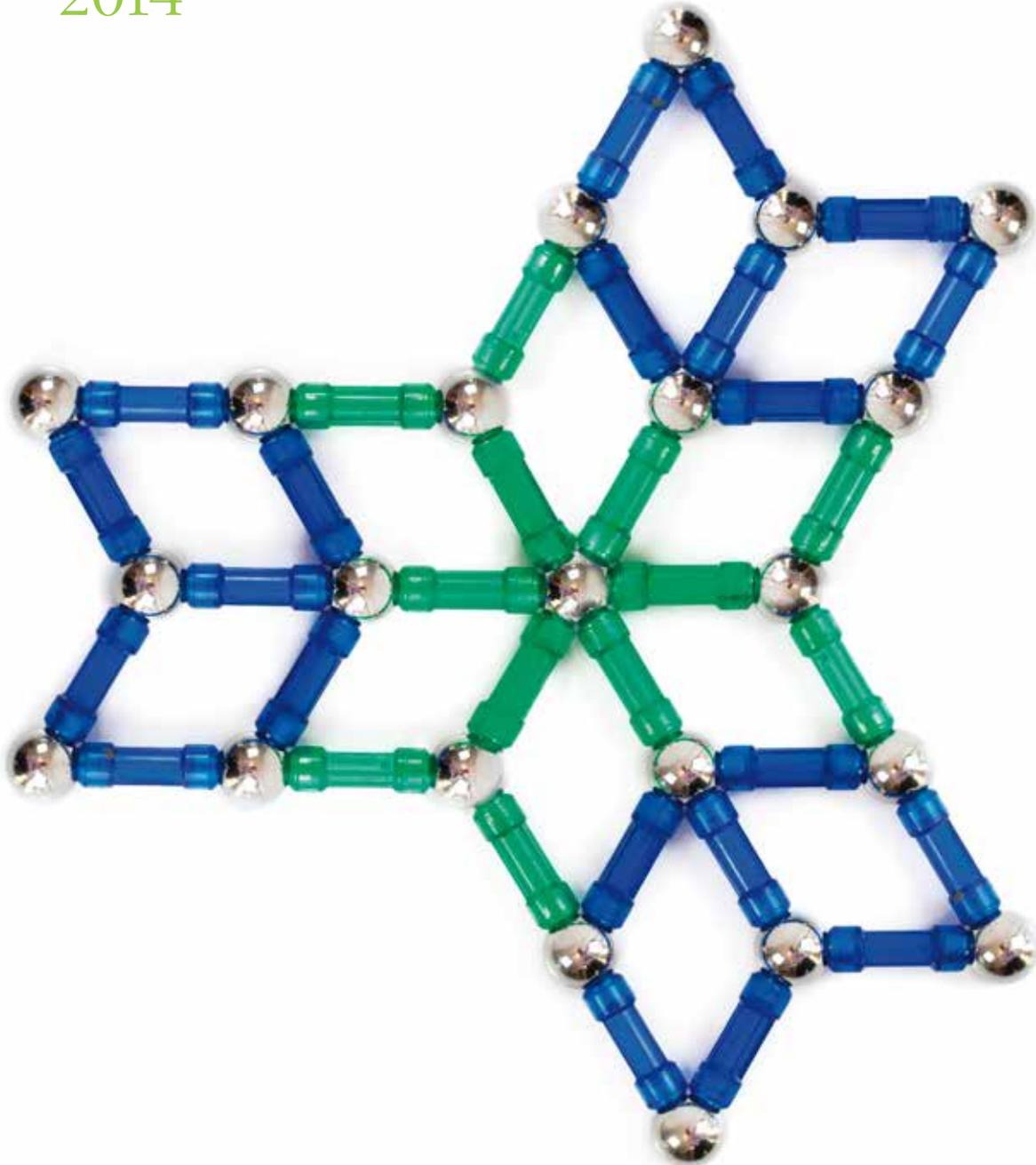


Technology, Media &
Telecommunications
India Predictions
2014



Deloitte Story

Deloitte drives progress. We advance the aims of our clients, striving to make them leaders wherever they choose to compete. Our work combines advice with action and integrity, always aiming to maximise the positive impact for all stakeholders. We thrive on collaboration, finding new insights and innovative ideas with which to move ahead. We invest in outstanding people of diverse talents and backgrounds and empower them to achieve more than they could elsewhere. We believe that when our clients and society are stronger, so are we.

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Foreword

Welcome to the 4th edition of Deloitte's predictions for the Technology, Media and Telecommunications (TMT) sector in India. Deloitte believes that across every global industry, knowing what is likely (and unlikely) to come in the TMT trends in advance serve as a key competitive differentiator.

This publication is released in conjunction with Deloitte's global TMT Predictions report and presents an India perspective of the key developments, anticipated over 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.

Developments in each sub-sector are now so inter-linked and interdependent that TMT executives need to be cognizant of key trends across all sectors.

Deloitte believes that the most critical differentiating factor of Deloitte's TMT Predictions is the unique methodology adopted to forecast these trends. The methodology, which is reviewed and updated every year, is summarized below:

- Usage of both primary and secondary sources, fusing both quantitative and qualitative analysis, based on in-depth discussions, polling of individuals and drawing inferences from hundreds of articles.
- Globally, test out the emerging hypothesis with Deloitte's clients, analysts and at conferences throughout the year.

- Publish only perspectives that are new or counter to existing consensus and are likely to interest and enhance knowledge of our leaders.
- Provide clear endpoints so that accuracy can be evaluated annually.

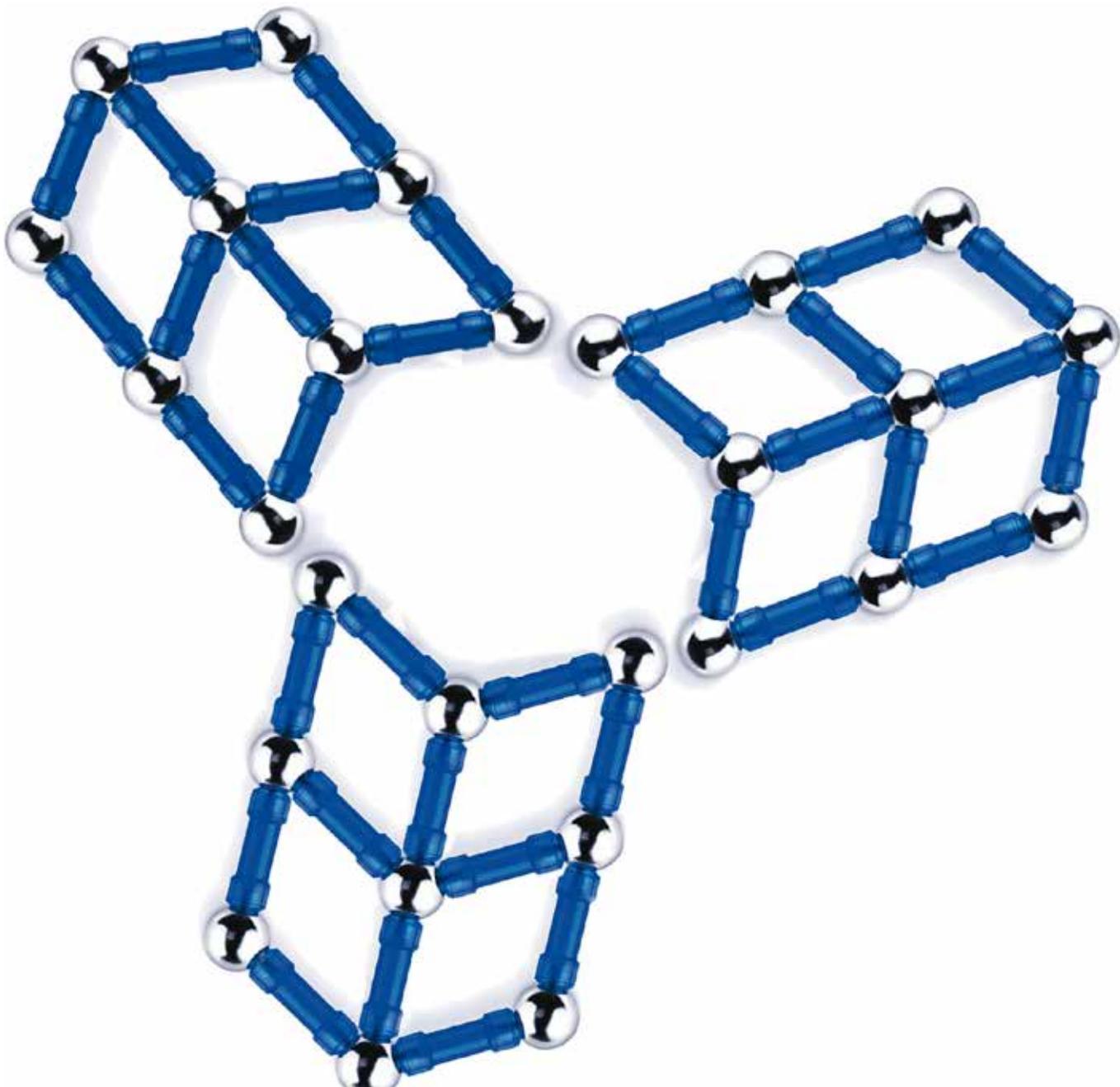
Deloitte hopes that you and your colleagues find this year's predictions for the TMT sector useful. As always, your feedback is welcomed. It is a reminder to readers that Deloitte's aim with predictions is to catalyze discussions around significant developments that may require companies or governments to respond. Deloitte provides a view on what would happen, what would likely occur as a consequence, and the likely implications for various types of companies.

Whether you are new to this publication, or have been following our predictions for years, thank you for your interest. Deloitte takes this opportunity to acknowledge the many executives who have offered their candid inputs, time and valuable insights for this report.

Hemant Joshi

Technology

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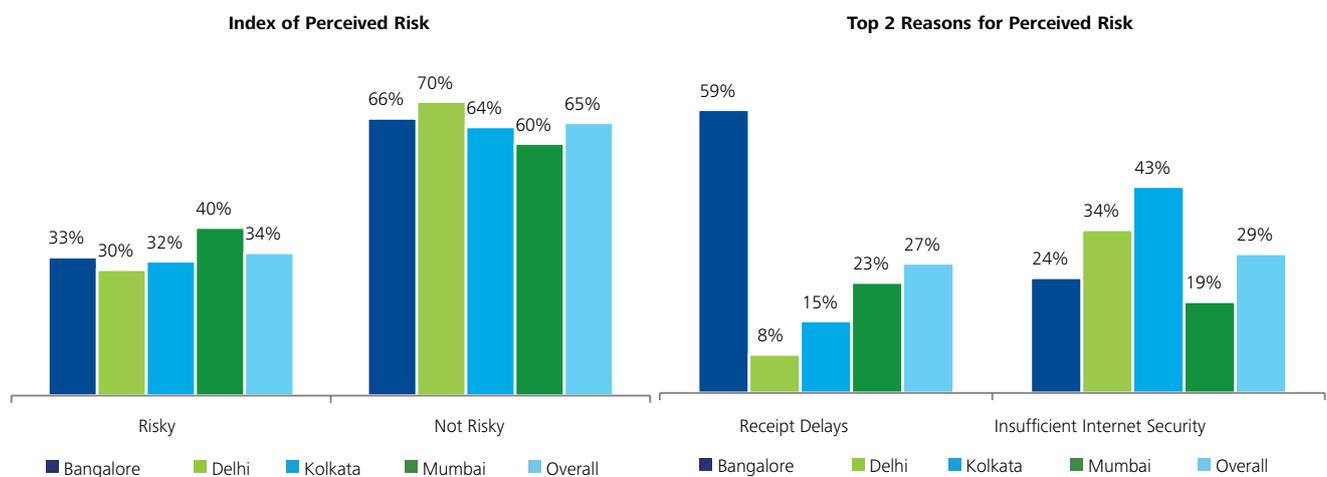
Mobility and e-Commerce: Driving innovations in payments and cash displacement

Deloitte predicts that, 2014 onwards India would witness a proliferation of technology-enabled platforms that would accelerate cash displacement. These technology platforms, most of which would be mobile enabled, would have far-reaching impact in providing accessibility to a larger populace to alternate retail channels. They will also play a key role in banking a large section of the unbanked population. While a significant minority of urban consumers have simultaneous access to debit or credit cards and robust internet connectivity, the availability of such a package does not hold true for bulk of the population especially in tier III cities and

beyond. Lack of robust payment technology, which can address such gaps remain a critical area of concern for most of the online retailers, which is impeding growth in this segment. Deloitte expects new models to emerge that would address this challenge.

As smartphones and tablets become ubiquitous and merchants are increasingly accessed by customers via multiple channels, there is a strong case for the development of non-cash payment alternatives. In India, the potential of cash displacement remains huge as the current level of non-cash-based transactions is minimal.

Figure 1: Perceived Risk associated with Cashless Transactions in India



Source: Visa, IDF and IAMAI Analysis

Globally, among the various cash displacement technologies, mobile Point Of Sale (POS) focused solutions would witness most significant growth. In a relatively mature market like US, mobile POS could expand current payment card acceptance by as much as 20 million firms, if eligible firms started accepting payments.¹ While such a larger trend holds true for India as well, given its own unique retail and banking ecosystem, it would witness certain innovations independent to the ones that are being globally adopted.

As per the Internet & Mobile Association of India (IAMAI) and India Development Fund (IDF) Survey, around 11 percent of the urban households in India have embraced cashless transactions. A significant part of the cashless transactions happen in various e-commerce sites and are predominantly card-based online payments. There have been a lot of initiatives towards ensuring larger participation of consumers in cashless payment methods and in “banking the unbanked” - another critical area where cash displacement can play a pivotal role. Despite these initiatives India is long way from a mature payments ecosystem and it remains a critical concern across merchants and customers due to issues ranging from transaction failure to supplier integrity.

As banks, merchants and regulators proactively promote alternate payments and cashless channels, Deloitte expects significant number of innovations across the ecosystem ranging from mobile, e-wallet, cards, Point of Sales (POS) solutions, gateways and transaction management services. Given that payments are governed by a highly regulated environment, all of the above innovations need to pass the regulatory muster.

The issue that still remains at the forefront of payments being a bottleneck in transactions is the limited availability of cash alternates to bulk of the Indian population. However, so far, banks have only observed this from the fringes and the merchants are wary of accepting such payments. Deloitte believes that while the technology becomes friendlier for the merchants, facilitating their acceptance, the traditional banks need to step in to provide the stamp of integrity and authentication for this trend to succeed. Concepts like prepaid debit cards and mobile wallet would gain prominence. We foresee a strong use-case for hybrid payment model where online payment providers would tie-up with retailers, both large and small, to bring more customers under the umbrella. Such payment models would not only foster Business to Customer (B2C) transactions but would also facilitate areas like remittances, which are big in India.

We see a strong business case for the development of an alternate to the cash on delivery (COD) option. E-commerce, as a segment, bleeds largely due to working capital challenges that it faces due to the concept of COD. Problems regarding supplier integrity in a traditionally unorganised market remain so strong that the Indian consumers would find it very difficult to break out of the “pay as you look and feel” policy. This could eventually lead to innovations that reduce the delivery to cash cycle for the merchants. Features such as escrow services from the likes of PayuPaisa^{2,3,4} for B2C transactions may gain prominence. Deloitte expects lot of activities around similar concept in Business to Business (B2B) commerce as well, where the supplier payment cycle is reduced and the ensuing cost benefit is shared with the buyer.

The most critical factor that affects the adaptation of online payments is the incidence of transaction failure. It is estimated that not more than 60 percent of payment transactions over the internet are consummated.⁴ Technologies that will reduce transaction failures and ensure smoother and immediate reconciliation process in case of erroneous payments would gain traction in the market. There are already quite a few solutions in the market designed to make the payment process more efficient like Cleartrip's Expressway and NGPay^{5,6}.

Another key area in payments, where we expect a large number of innovations happening is that of micro-payments. Even if it is assumed that a mere 1 percent of the SMB accept alternate payments where smaller transactions are ubiquitous, that is tantamount to around 250,000 more businesses being able to reach a larger audience. Another set of beneficiaries of the micropayments are a larger set of consumers, especially young professionals and students, who find limited usage of credit or debit cards, as most of their

transaction fall under the category micropayments, where cashless transactions are rare.

Mobile payments would give rise to simultaneous rise of two segments – first in mobile-POS devices and the second being in mobile payments channel like Near Field Communication (NFC). NFC, however, would be more than a year away before it starts finding acceptance in India as the market would wait for its global standards to develop before the device manufacturers adopt it. Amidst all these myriad developments, Deloitte predicts the biggest impact in this segment will be registered by the banks, who are emerging as an anchor for the alternate payments ecosystem by adopting innovative solutions. We also see banks stepping-in to promote common transaction platforms so that retailers can move to a plug and play model. This will facilitate the linkage of their systems with the banking channel. The promotion of such a standard would create a virtuous cycle that would remove impediments related to trust in alternate payment channels.

Bottom line

Indian market presents a tremendous opportunity for various forms of cash displacement technologies. The greater dispersion of mobile devices as compared to the debit/credit cards would ensure that alternate payments methodologies like mobile POS would see significant growth and would bring a larger number of merchants and consumers into the fold of cashless payments. Related areas like mobile banking, remittances, etc., are also poised to grow significantly and we expect greater participation by banks to ensure common standards, foster greater transparency and bestow a seal of authentication to the payments ecosystem.

Localization: Scaling the tower of Babel to achieve growth

In 2014, Deloitte predicts that India would witness a surge in the development of local language applications and localisation of content, as any incremental increase in mobile data and internet subscriber base would be achieved among the section of the population whose digital accessibility is limited by language constraints.

Language localisation of IT and mobility software should have been a logical progression in India. However, for years, language localisation as a concept had languished even though mobile and personal computer penetration has increased manifold. There have been multiple reasons holding back the language localisation of devices and software. Total number of internet users in India was around 120 million as on 2012. As per the 2001 census data, a total of around 125 million had listed English (of which 86 million had listed it as their second language and around 39 million as third) among their top 3 languages.⁷ Secondly, internet and mobility had been an urban youth-centric phenomenon. This socio-economic category is the strongest proponent of usage of English language in their day-to-day communication. Also, while the total number of internet-enabled devices existing in the market is around 500 million⁸, bulk of these devices are not linked to any data plan and are predominantly used for making and receiving voice calls, sharing text messages, listening to music, sharing photographs and playing basic games. Except for the sending and receipt of text messages, none of the other activities require a command over English language.

It is understood that about 500 million devices can be potentially internet-enabled and that there are only about 200 million internet connections as on date. Assuming that almost all the non-mobile devices PCs, laptops, tablets are internet-enabled, bulk of the non-internet enabled devices, amounting to 300 million are likely to be mobile devices. One could reason that some of these devices are purely supplementary connections that are meant for basic telephony and a significant number of devices are used by a segment of the population that is not web-literate and hence not all these 300 million devices are likely to be internet-enabled.

However, Deloitte believes that there could be significant developments in local language computing in India with the mobile as the medium. The aspects leading to this belief are:

- The total number of internet users has already reached around 200 million in December 2013⁹.
- The elderly, a large section of self-employed and those employed in the unorganised sector have displayed a progression in terms of their internet usage, especially via mobile.
- A large student community, who earlier had a limited mobile usage, has emerged as voracious consumers of data.

The telecom companies too have realised the potential of this segment and have since started providing data packs of smaller denominations to attract the intermittent and small ticket users. These new set of users at present limit their usage to entertainment and games but would soon move to communication applications like Skype, Whatsapp, Viber, etc. and Utility & Productivity apps for bill payments, financial transactions, etc. There is a dire need to develop local language interface in order to tap the small-ticket user market and enable easier access of the relatively new-fangled applications. Moreover content consumption via Social media like Facebook, news portals like Google News, content platforms like Tumblr and Quora are not limited entirely to the young. A large number of senior citizens who access these platforms are more comfortable viewing the content in their mother tongue than in English. Also, the Government's initiatives to facilitate more Government to Citizen services would necessarily require the devices and applications to have vernacular compatibility, as bulk of such services are aimed at the wider segments of population. There seems to be a clear use-case for applications and devices to be adapted to support vernacular language capabilities. Given the current scenario, it is safe to assume that English as a medium in Internet has reached a saturation point and further substantive penetration needs to happen via the vernacular medium.

The two largest global software vendors have put their weight behind Indic language computing, thus taking IT and mobility to the masses. Microsoft's Project Bhasha is a comprehensive program, which aims to localise Microsoft's flagship products, Windows and Office to offer local language input tools and interface packs in 12 Indian Languages offers.¹⁰ Android's Jelly Bean Version already allows Hindi as an in-built input language for all its devices and Gmail is enabled in various Indian languages on feature phones operating on Android platform. While these two players are strongly promoting in-built application in their operating systems and enterprise-class software, there are a whole range of third party application providers, which facilitate specialised language services like gesture-based input and transliterated language services, etc. Google itself is working with the likes of Robosoft to provide in-built local language interface in Android operating system.¹¹ Device manufacturers like Samsung are also working with transliteration solutions provider like

Reverie Technologies for offering content across various Indian languages.¹²

Despite much action, there remains a lot of ground to be covered to unleash the real value of language localization. Marketers would want to derive meaningful insight out of the humungous quantity of data generated by users as an outcome of being able to use such applications more meaningfully and, the corresponding text mining techniques are yet at best in their infancy. Also such data mining and analytics would require specialised ability in psychology, sociology and linguistics, which are in short supply in India.

While we see a strong use case for local language applications in personal computing and mobile domain, we expect to see a robust pipeline of relevant solutions over next two years. The real impact of this phenomenon would be felt in the long term – over a period of next 4-5 years.

Bottom line:

Internet penetration among the users who prefer accessibility via English as the medium has reached substantive levels in India with limited headroom. Any further substantial increase in the mobile subscriber base in general and internet subscription in particular is likely to happen in a segment whose unfamiliarity with English would act as a severe constraint in their adoption of mobile and web technology as it is today. There is a significant pressure on the telecom companies to increase internet subscription to offset the stagnancy in overall telecom penetration by enhancing Average Revenue Per User. This can be achieved if the accessibility to devices and applications is enabled via further language localisation to address the population, which is beyond the 125 million who list English among their top 3 language of preference and communication. India would thus witness a strong push from global players to translate and contextualize applications, content and devices to suit the local preference.

Smart ‘Home & Utilities’: Two drivers of Machine to Machine application

Deloitte predicts that in 2014 a sizeable number among the approximately 350 million Internet-enabled but unconnected devices in India would be connected to the web.^{13,14} We also believe that there would be a surge of connectivity with the traditionally standalone devices primarily in the home appliance segment. This would be the first step towards building an Internet of Things (IoT).

India contains two of the three pillars towards building an ecosystem of IoT. It has a large base of internet-enabled access devices and it has a large and growing market for home appliances and devices, which are traditionally not networked. What currently India lacks are relevant applications, which would enable such an interconnected cluster of machines. With all the major players across the original equipment manufacturing, device and industrial ecosystems being optimistic about IoT, Deloitte believes that India could be a test market for many relevant applications of the concept.

Internet of Things is not a new concept as the current intensity around the topic would prompt us to believe. According to the Cisco Internet Business Solutions Group (IBSG), IoT is simply the point in time when more “things or objects” were connected to the Internet than people.¹⁵ India has around 431 million internet capable mobile devices and around 60 million Personal Computers. Combine the same with the 10 million tablets cumulatively sold over last two years and the industrial computing gears that are extant in the market, the total number of internet capable devices would be a tad above 500 million.¹⁶ As of now for an internet user base of around 130 million (actual number of people connected to Internet via narrowband, broadband and mobile)¹⁴, India has around 500 million internet capable devices, though it is not very clear what percentage of these devices are actually connected. Thus India has already reached the inflexion point that can be considered as the advent of Internet of Things. This will only mark the beginning of a more long term phenomena, as connectivity starts spreading from individuals to the ecosystem. Deloitte believes that India would become very relevant in the M2M communications landscape in next 24 months.

India remains a very important market for the consumer electronics / home appliances companies and the mobile device manufacturers despite the slowdown in mobile telephony and the recent low spends on appliances by the growing middle class.

Table 1: Household appliances industry size (in ₹ billion)

	FY04	FY09	FY14 (projection)
Colour TV	68	110	185
Room Air Conditioners	23	47	95
Refrigerators	31	51	81
Washing Machines	11	21	36
Total	133	229	397
Five Year CAGR		11.5%	11-12%

Source: National Council for Applied Economic Research

Based on the above table, it is estimated that the number of units sold in FY 2014 alone would be around 40 million. We can safely estimate that a significant part of these 40 million devices being marketed every year would be technically capable of being a part of the connected ecosystem.¹⁷

At least three of the five global brands, which operate in the mobile device market of India, have an equally big home appliances business in this market. This could prompt a significant differentiation war between these companies, possibly leading to “integrated electronic lifestyle solutions” reaching the market in next two years. Such solutions could be a set of interconnected devices including mobile, TV, washing machine, refrigerator, home security solutions, car security solutions and kitchen appliances. The demand for such solutions would be further fuelled by the growing need of high value residential real estate providers to differentiate their offering and justifying the premium in an oversupplied market. While the next generation home automation play cannot exactly be classified as an internet of things; it could rather be seen as a large set of purpose built network. While we do not expect

these set of individual networks to be connected, this could act as the first step towards assigning unique device level identification and enabling the devices to evolve with more capability towards management, security, self-learning, predictive action and inter-device communication. It could be argued that the R&D behind such innovations would probably not happen in India, but we have enough reasons to believe otherwise.

Most of the Indians cannot be termed as couch potatoes not because they spend lesser amount of time glued on to the TV set but more due to the absence of a concept of a couch in many Indian homes. One step in getting the TV sets being more than mere receivers of content and enabling them for a limited duplex communication has been the drive of digitization or set top box enablement. This step in itself has created a platform by means of which, each set is uniquely identifiable at least within the realms of the corresponding Multi Service Operator (MSO). A significant portion of the urban households already have DTH connections where the same premise holds true. We expect a clear transition towards more intelligent Set Top Box (or equivalent devices) along with IP-enabled TV sets, which would jointly drive TV to be a part of the internet. Unlike mobile and tablets, India is yet to see a glut of applications around the internet enabling of TV, but we believe that in next two years many such applications would be developed locally.

Another front where we expect the advent of significant inter-device networking is in Utilities. India has witnessed significant IT enablement of the utilities under the aegis of Re-structured Accelerated Power Development and Reform Programme (R-APDRP) programme with a roadmap that will eventually lead to processes like metering, billing and provisioning being automated. This could lead to the adoption of advanced metering solutions where a growing number of electricity meters are enabled to collect and transmit

a large amount of data indicating the health and utilisation of the last mile network and the connected devices. The adoption of meter data management solutions assists the utilities to facilitate proactive load balancing, fault management, customer relationship, billing and provisioning. Even in the utilities segment, while we do not expect the network to evolve into a full blown IoT in next two years, significant chunk of the network would evolve into an automated hub and spoke model with the local distribution company at the centre and the branches extending to advanced meters at the customer premises.

Deloitte believes that a large part of this innovation will directly emanate out of India. Currently, a significant amount of product innovation does happen in the India-based Research & Development (R&D) outsourcing/ product engineering companies or divisions of global firms. The growing interest of many such firms in acquiring players with capability in M2M space is a clear indicator towards this trend. In mobile devices and tablets, with the market tilting more and more towards the home-grown players, it is natural that local innovation or local adoption of a global innovation would play a role. This would propel many such mobile device-focused M2M solutions being promoted by the local firms.

While the evolution of a full-fledged IoT still remains unclear and a lot would depend on global developments like transition to IPv6 and development of standardised platforms and middleware for interconnectivity across a wide array of devices, the next two years in India would see strong strides taken towards developing a collection of Intranet of Things across driven by home automation and appliances, mobile devices and utility services.

Bottom line:

A significantly large ecosystem of appliances and devices that have or are being sold could be web enabled. There is a strong use case for such an integrated environment to emerge. Statistically India is at a point that could be deemed as the advent of Internet of Things.

The phenomenon would be further hastened by the growth in the home appliances segment, which along with the high growth expected in smartphones and tablets would help the electronics goods vendors to come up with “integrated electronic lifestyle solutions” for differentiating themselves in a highly competitive marketplace. TV may start gaining acceptance as a significant node in the integrated home electronics solutions and also in accessing the web.

The other driver for IoT would be in the utility segment, where we expect significant strides towards smart metering and automated device management.

Instead of a full-fledged transition towards Internet of Things, India is expected to make significant progress in developing clusters of “intranet of things” in the next two years.

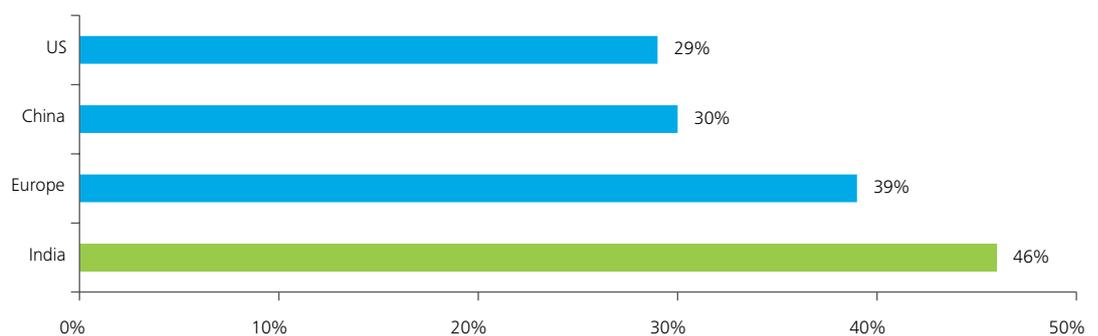
Multichannel Enterprise Applications: Let a thousand application providers bloom

Deloitte predicts that 2014 will mark the surge of a new set of solutions and services emerging in the market, which will enable an enterprise to adapt itself to two new challenges viz. Bring Your Own Device (BYOD) and Multichannel Customer Management. The wide range of devices, which people use to access information, has thrown up two key challenges to the Chief Information Officers and Chief Technology Officers of the organisation. The first is an inward looking challenge of how to manage BYOD or even its milder version of access to office applications by employees from outside the office premises using their personal devices. The second facet is how to address customers and vendors who are increasingly using a multiplicity of devices and touch-points to interact or transact with the organisation. These will pose significant challenges to organisations in areas like security, inter-operability and data/device management. In India, while the penetration of smartphones and 3G service is significant, it is not the norm and bulk of the operating systems in the extant devices are not cutting edge. This poses significant India-specific challenges to enterprises and technology vendors that need to be addressed.

We believe that India would see a growing number of localised applications that would enable multi-channel access of various enterprise applications both from the employees and the customers.

A Deloitte Global survey shows that organizations are responding to the increasing use of mobile devices in the workplace. Currently, 45 percent of organisations have BYOD policies. Surprisingly, more than 51 percent of employees, who work where BYOD policies are offered, primarily use their personal device as their work device and 58 percent of those personal device owners receive the same or more reimbursement. The Survey also shows that one of the fears (technical incompatibility/challenges) around BYOD may be less of a factor than anticipated with 69 percent of organizations who implemented a BYOD policy reporting they experienced no technical, or support related challenges.¹⁸

Figure 2: Enterprises prohibiting BYOD by country



Source: ISACA Survey¹⁹

However, according to a 2012 survey in India, conducted by Information Systems Audit and Control Association (ISACA), "India stood first among its global counterparts in prohibiting BYOD, with nearly half (46 percent) of Indian enterprises successfully deploying a BYOD policy to prohibit the use of personal mobile devices for work to mitigate the risk to the enterprise. India is followed by Europe (39 percent), China (30 percent) and the US (29 percent)".¹⁹ The two key challenges in adopting the BYOD concept in India are incompatibility of devices with the office applications and the data security risks associated with BYOD. But before the immediate impact of BYOD is discounted, one critical aspect needs to be understood that it is an irreversible process and once the enterprise implements BYOD it would be virtually impossible to go back to its former "Devices on Premises" practice.

Deloitte believes that it will prompt a glut of security products and services in the market, especially from local vendors who have a better reach and are functionally more geared to address the large SMB market in India. There would also be a large number of solutions that would enable the seamless migration of enterprise applications that has been traditionally residing and are being accessed on premises of what would be residing on cloud and accessed from a range of devices off-premises.

Meeting the second challenge of letting customers and vendors access company data and interact via multiple devices and multiple channels like social media would prompt a range of applications and solutions. These solutions would witness interplay of technologies spanning CRM, mobility, social media and cloud.

There would be a strong localisation play that would be caused by the multichannel and BYOD disruption. The organisations would need to re-think their technology investment strategy and in the short run make significant investments in the above mentioned fields. A part of this, capex spent would however be offset by the fact that many of these applications would be cloud enabled. Further, the CTOs would still like to prune the cost of investment and given the flexibility and reduced switching cost offered by the pay-as-you-go models, might settle for localised and thinner version of the more traditional enterprise products. For example, we might see workflow applications that are overlaid on a simple email application or simple CRM solutions as Facebook apps.

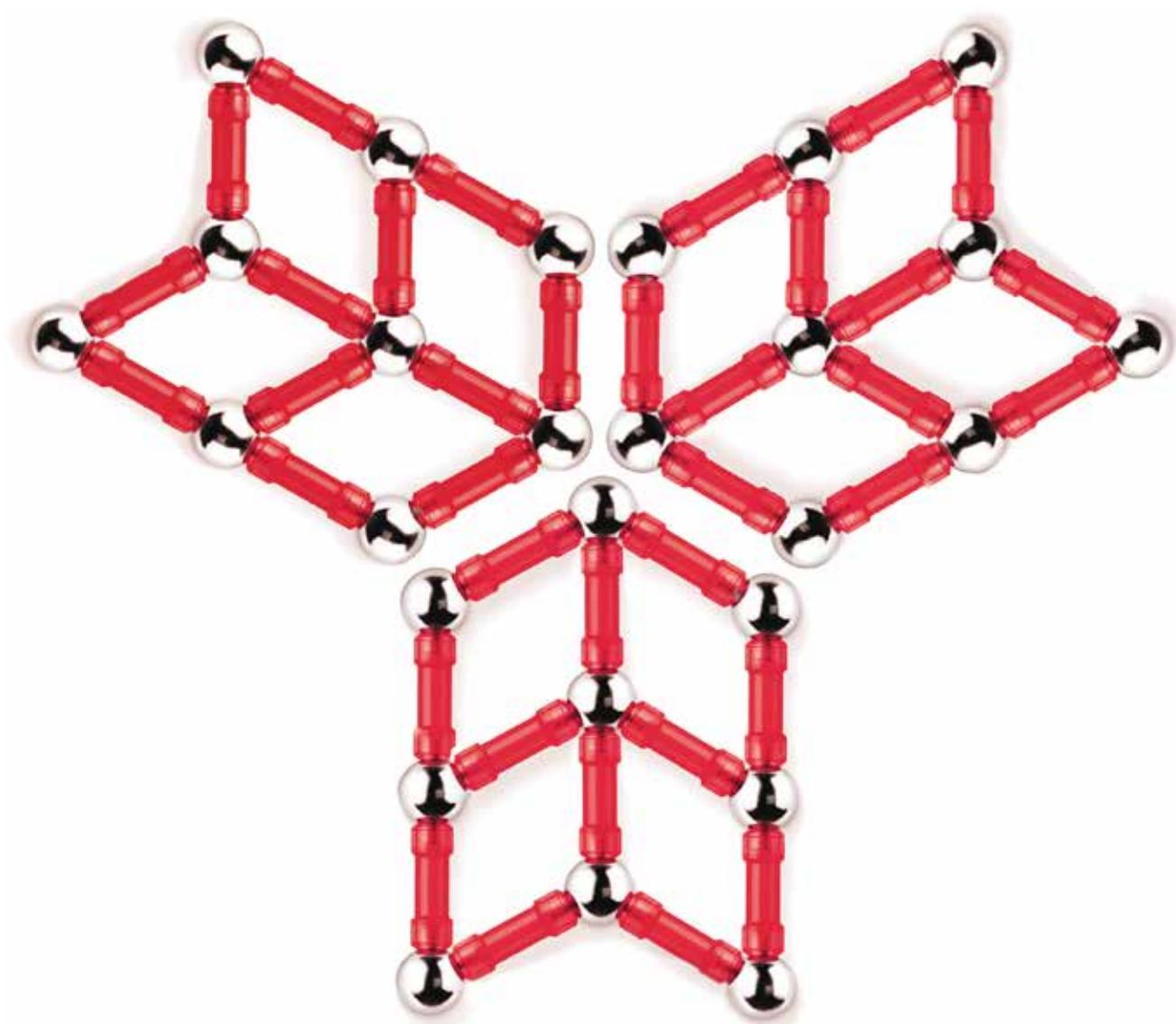
These local innovations would primarily be undertaken by the local start-ups while larger global players focusing on SMB business may also start addressing the specific needs of Indian market. However, we do not expect these innovations to be limited to India and in fact expect that there would be an eventual adoption of the same in a more global arena.

Bottom line:

BYOD and multichannel customer facing applications would be the two most important drivers for enterprises to adopt a completely new range of applications. The latter would in fact be as important a driver for SMBs, as it would be for larger enterprises. On account of this, India could witness a significant number of local application vendors who would provide innovative solutions for security, process and workflow management, multichannel CRM and mobile enablement.

Media

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Newspapers: The regional surge

In 2014, Deloitte predicts that regional print industry will continue to surge primarily driven by factors such as under penetration in regional markets, rise in regional ad-rates and sustained pressure on English print advertising by digital media.

The print industry continues to depend on advertising spends, which owing to its high correlation with economic growth, remains under pressure. On the contrary, local retail growth and local advertising favoring the regional newspapers could hedge the pressure on advertising revenues for regional newspapers. Furthermore, the affinity of people to consume content in local languages²⁰ and a sizeable proportion of population staying in tier II and III cities, towns and villages would continue fuelling this growth.

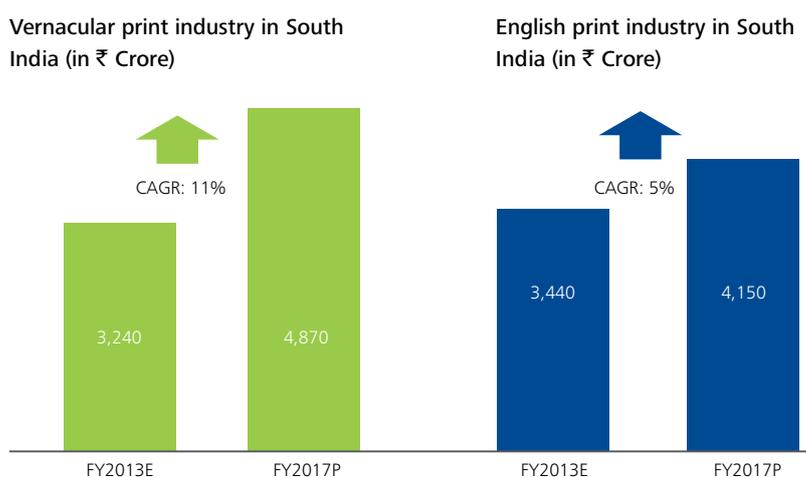
An indicator of regionalisation is the comparative analysis of expected growth of vernacular print industry in South India vis-à-vis the English print market in South India. The advent of regionalisation is not just limited to languages but also to geographies.

Under penetration in regional markets

Average penetration of newspapers is low in the country and stands at approximately 15 percent. However, the penetration numbers are as high as 70 percent in cities while as low as 5 percent in the countryside.²¹ India's literacy stood at 73 percent, according to the 2011 census²² and is expected to continue its upward growth. Even among the literate population, the penetration of newspapers is low. As an indicator of the level of under penetration in regional markets, only 30 percent of literate population in South India (Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu) read newspapers.²³ This indicates a huge potential for newspapers to expand with respect to their readership base.

With its continued march towards higher literacy, the country is witnessing upward mobility along the class lines. This will make newspapers important for the aspirational middle class. Further, such consumers in smaller cities, towns and villages would continue to consume news in their local languages rather than English.

Figure 3: Expected industry sizes of Vernacular and English Print industry in South India



Source: M&E in South India: Promising signs ahead, Deloitte, 2013

Rise in vernacular ad-rates as gap with English ad-rates expected to narrow further

Due to the growing interest of national players in the regional print sector, as well as growth witnessed by the vernacular print industry, the gap between the ad-rates commanded by the English newspapers and vernacular newspapers has reduced. This was evident last year as well with the share in print advertising of Hindi and vernacular medium gradually increasing.²⁴

The industry believes that this gap will reduce further with sustained growth of the regional print industry backed by market inclination to consume news in local language and growing relevance of local advertising.

On the back of such factors, English newspapers have started expanding into regional territories. For instance, the Hindu has recently launched a Tamil newspaper under the same name.²⁵ The Times of India

is contemplating entry into regional languages including Tamil and is already on the verge of launching a Bengali daily 'Ei Shomoy'.²⁶

This push has been further aided by the growth of digital advertising. It witnessed approximately 41 percent growth in revenues in FY2012 as compared to almost 7.3 percent accrued by the Indian print industry.²⁴ It is expected to grow further on the back of a rising internet user base in India, which is slated to become world's second largest by June 2014 with 243 million users.²⁷ A majority of this internet user base resides in the urban areas²⁸ and hence is also the target base for digital advertising. As advertisers embrace digital advertising, they may increasingly choose internet over English newspapers to target such urban populace. As a result, the English dailies are increasing their focus on regional markets through special editions and local dailies.

Bottom line:

Newspaper and print industry will continue to witness regionalization both in terms of language and geography. This would be driven by:

- Prevalent under penetration of newspapers in the regional markets in spite of high literacy, leaving a great potential for growth in such areas.
- Rise of digital advertising putting pressure on English dailies to look towards untapped markets with relatively less reach of digital media.
- Narrowing gap between ad-rates charged by Vernacular and Hindi newspapers and English newspapers, thus increasing the viability of regional newspapers.

Distribution Networks: The digital leap

In 2014, Deloitte predicts that the digital TV distribution space – both Digital Cable and Direct-to-Home (DTH) would find ample room for growth given the catalyzing effect of digitization and the headroom for growth provided by non-TV households in the country.

Table 2: Digitization phases, scope and affected subscribers

Digitization Phase	Scope	Subscribers affected (million)
I	Delhi, Mumbai, Kolkata, Chennai	8-10
II	All cities with population > 10 Lakhs	12-14
III	All urban areas (Municipal areas)	30-35
IV	Rest of India	22-25

Source: Industry discussions

With penetration of TV in India standing at approximately 65 percent, at present the country has close to 80 million non-TV households, which presents a key opportunity for the television distribution players.²⁹ This low level of penetration holds great potential for players to increase their subscribers and revenues. Drivers such as rising incomes, decreasing household size and rising urbanisation would only provide a further fillip.

With the government's digitisation mandate slowly but steadily progressing towards its target, the television distribution space is abuzz with prospects, albeit it would call for investments and improvements, especially from the Digital Cable players. All metros except Chennai have been largely digitised and the Phase-II of digitisation, which covers 38 cities, is also nearing completion. Phase III and Phase IV of digitisation target December 2014 for their completion. This would mean digitisation of additional 40-50 million household in the balance towns.

Phase III aims to focus on digitisation of all urban areas (municipal areas). Given the extensive coverage of Multi-System Operators (MSOs) and Local Cable Operators (LCOs) in such areas, Digital Cable is expected to make the most in the relatively densely populated areas, notwithstanding the churn of subscribers to DTH. In the first phase of digitization, DTH operators were able to grab 20 percent of subscribers converting them from analog to digital.³⁰

Phase IV aims to focus on digitisation of the rest of India, which predominantly aims at rural areas and tier II cities. DTH is expected to gain the most in areas with sparse population and inadequate cable infrastructure. DTH, as a sector, had started off by concentrating on rural areas, which were deprived of cable infrastructure and gradually also entered the urban markets. However, they are still strong in rural markets. For instance, contrary to the popular perception, over 50 percent of Tata Sky's subscribers appear to be from rural India.³¹

Both DTH and Digital Cable have their respective shares of pros and cons. It would be interesting to see the direction in which the industry moves as digitisation gains further momentum. The results would depend upon how well the players are able to leverage their respective strengths.

DTH

DTH used a cautious approach to begin with and focused on rural areas. Within ten years of its launch, DTH has become a force to reckon with. Its subscribers are not just limited to rural India with over 60 percent belonging to top 20 cities.³¹ DTH has already proved its capability to satisfy the prerequisites of digitisation. It has successfully deployed Conditional Access System (CAS), Customer Relationship Management (CRM), Electronic Programming Guides (EPGs), billing platforms and other systems key to serving customers transparently. All DTH players in India are backed by large organisations with significant ability for marketing, thus creating a unique brand. With no intervention by the middlemen and its direct access to customers, DTH has successfully addressed the issue of accessibility.³²

On the flip side, DTH plays more on a national scale. This may hinder it from offering localised content specific to a city, town or smaller geographies. They also have to incur transponder and spectrum charges, which are sizeable in nature. Availability of satellite bandwidth on Ku band could also pose a constraint on the offerings of DTH, specifically high-bandwidth services such as High Definition (HD).

Digital Cable

Cable operators in India, through their sustained expansion, have managed to hold a 60 percent pie of the subscriber base. Cable has always grown locally. Apart from a handful of MSOs, majority of cable operators are confined to smaller localities. This makes them more suitable for providing localised content of relevance to the particular geography. On the technology side, Industry participants consider cable

to be technologically stronger as it offers a higher bandwidth and a natural return pipe. On the cost front, cable players do not need to bear any transponder or spectrum charges, which burden the DTH players. Also, cable has the capability of providing an uninterrupted experience as opposed to DTH, which is vulnerable to rain attenuation.³³

On the other hand, given the large fragmentation in the industry, players have struggled to develop brand positioning. Also, digitisation mandates would necessitate implementation of systems such as CRM, Billing etc. and additional digital heads and fiber, all seeking capital expenditure and investments. Despite digitisation, MSOs are still grappling with the issue of addressability and are focusing on getting customer acquisition forms (CAFs) filled and mapping subscribers onto their systems.

Bottom line:

- Indian television distribution industry is going through a paradigm shift through the government's digitization mandate.
- The ramifications of digitisation and significant headroom due to under penetration, presents great potential for both DTH and Cable operators.
- Digital Cable is expected to gain more out of the densely populated areas with adequate cable infrastructure while DTH is expected to gain more in sparsely populated areas with minimal cable infrastructure.

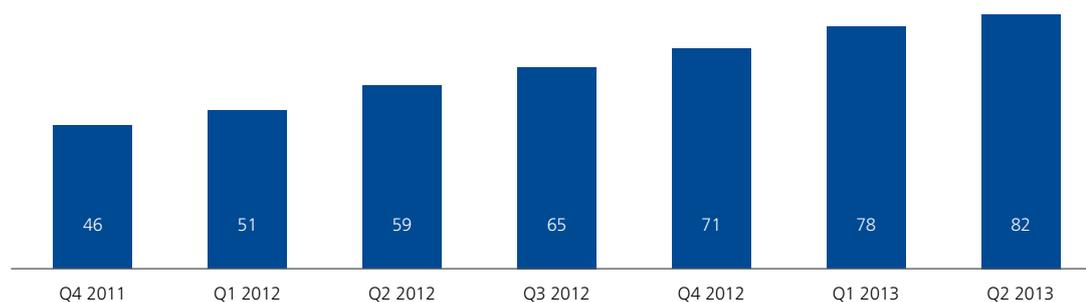
Social Media: The urge to connect

In 2014, Deloitte predicts that social media would continue to grow as a favored platform for targeted advertising as its adoption surges, driven by increasing mobile usage and higher penetration of smartphones and a young population.

Social networks such as Facebook, Twitter, and LinkedIn continue to grow in terms of relevance in the country. In the fragmented media landscape, they have become daily haunts of millions of users. Facebook's annual report indicated 71 million monthly active users in India as of December 31, 2012, an increase of 54 percent year-on-year, and identified India as a key source of growth. India currently accounts for 7 percent of the Facebook's global monthly active user base³⁴ and is the second largest in the world behind US.³⁵ Other networks such as Twitter are also gaining foothold with more than 20 million users. Mobile has added another dimension to the usage patterns of the social networks and will be an area of immense interest and focus for all networks, with the growing user base on mobile fuelled by increasing smartphone adoption and increasing usage of internet via feature-phones.

A fragmented media landscape and the rising popularity of social networks have propelled social media to become a favored platform for targeted advertising as well as consumer engagement. Social media platforms have built up extensive databases containing information on consumer demographics, social connections, interests, habits and behaviors, thus providing a wealth of information, which can be leveraged for targeted and relevant advertising. The lure of social media is further heightened because of higher levels of user engagement in terms of time spent on the network. Beyond advertising, social media platforms also facilitate client engagement for consumer-centric organizations to engage with their customers on a one-to-one level, thereby, providing a personalised experience. This is only expected to intensify in the future with social networks working on their own tools providing better targeting as well as third party developers who specialise in social media marketing and consumer engagement.

Figure 4: Facebook India Monthly Active User Base (in million)



Source: Medianama

An expanding user base

India is a rather young country with a median age of 24, and 31 percent of population in the 0-14 age group.³⁶ This presents a significant opportunity for social media platforms with opportunity to attract additional users onto their platforms.

Further, mobile is increasingly becoming an important medium for social media platforms. Both Twitter and Facebook have passed the 50 percent mobile usage mark and this is only expected to increase.³⁷ Platforms are also innovating advertising tools specific to mobile. For instance, Facebook started native advertisements (apps embedded in the News Feed) on mobile Facebook timelines. Such native ads are expected to generate a higher click through rate.³⁸

The current user base of smartphones in India is estimated at over 60 million.³⁹ Internet-enabled mobile devices such as smartphones and tablets are expected to grow further in the future. With the rapid growth of internet users in India, it is expected that India would have more internet users than US by June 2014.²⁹ Such large scale and rapid adoption of devices and large base of internet users presents a golden opportunity for social media platforms to increase their penetration.

Advertiser's perspective

Social media platforms with detailed understanding of user's demographics, preferences, social connections and behavior provide an attractive proposition for advertisers. The high granularity of information allows advertisers to target consumers much more effectively.

Social platforms too have been innovating to produce tools, which help advertisements become more effective and span across multiple properties. For instance,

Google launched Google+ shared endorsements in November 2013. Using this tool, businesses can leverage comments and ratings given by users to them. The tool showcases such comments and ratings within the search results, thus allowing businesses to showcase consumer confidence.⁴⁰ Facebook started native in-line advertisements in News feed of their mobile users. Twitter has also revamped its analytics platform to provide improved campaign reporting for advertisers.⁴¹ LinkedIn, along with targeting options for ads, also offers sponsored updates that allow companies to promote their content to specific audiences on LinkedIn in a similar manner as companies post sponsored tweets on Twitter and promote page posts on Facebook.

In addition to the platforms themselves, multiple third party providers are also entering the fray. For instance, UberMedia has launched a mobile advertising platform called UberAds that tracks publicly available information provided by smartphone users and offers interest based advertisement to the users.⁴² Facebook has partnered with data companies such as Epsilon, Datalogix, Acxiom and Blue Kai, which helps it to track both online and offline purchase behavior thus expanding the understanding beyond the platform.⁴³

Bottom line:

Social media will continue to increase its relevance for advertisers driven by:

- Surge in adoption driven by increase in internet users, smartphone users and a young population
- Innovation in various tools provided by social media platforms as well as third party providers for targeted advertising and improved customer engagement

Sports: Winds of change

In 2014, Deloitte predicts that, fuelled by increasing popularity of new sports properties and the steps taken by various broadcasters to leverage this growing momentum, sports viewership in India would continue to grow beyond Cricket.

Sports and cricket have been synonymous in India for the past few decades. Cricket still continues to be the dominant sport both in terms of the viewership as well as its monetisation ability in terms of ad-rates. A few years back, no sports channel without Cricket could think of survival. However, winds of change are slowly sweeping the sports media landscape in the country.

Other sports have been continuously growing in popularity. Football properties like World Cup, Euro Cup, English premier league and Spanish La Liga, among others are slowly growing from content with niche popularity, to ones with much higher fan following and viewership. The popularity of Football will further get a fillip from IMG Reliance's Indian Super League, the IPL styled football league expected to be launched in 2014.⁴⁵ With the Buddha International Circuit, Formula 1 too has started garnering more attention. Badminton and Hockey leagues modelled on the famous and successful India Premier League have also managed to attract viewers. The Indian badminton league offered prize money of \$1 million, the highest in any badminton tournament in the world.⁴⁶

The broadcasters too are taking notice of these developments. They are initiating steps to cover non-cricket sports and also increase their reach and penetration with plans to offer channels in Hindi and other languages. Sponsorship money flowing in from various brands and heavy marketing has stirred up appetite for non-cricket sport properties, thus prompting broadcasters to cover such sports. Even in Cricket, the focus is no longer limited to only international cricket. Broadcasters are taking initiative to cover good quality domestic cricket.⁴⁷

New properties

IPL has been a success in India in terms of viewership and its ability to attract advertisers and sponsors. Through its successful model of city-based franchises, it

Table 3: Comparison of Badminton, Hockey and Cricket Leagues

	Indian Badminton League	Hockey India League	Indian Premier League
Duration	18 days	26 days	54 days
Reach	21.7 million	41.4 million	190 million
Ad revenues	₹75-90 Crore	₹50-70 Crore	₹850-875 Crore

Source: Business Standard⁴⁴

provided a template, which is being leveraged by other sports as well.

Football is globally the most popular sport in terms of sponsorship, number of fans, TV viewership and revenues.⁴⁶ In India too, it is gaining in popularity in Sec A and Sec B⁴⁸ markets, especially amongst the youth.⁴⁹ English premiere league and Spain's La Liga as well as Italian Serie A have seen increased coverage. Domestically, driven by the popularity of European leagues, IMG Reliance and Star India have planned the launch of franchise-based 'Indian Super League' which would feature eight city teams and would include marquee international players and coaches. The league is scheduled to commence in September 2014⁵⁰ and if things go as planned, could further push the popularity of Football in India.

Other sports are also finding their footing. The first edition of Indian Badminton League recorded a cumulative viewership of 21.7 million, while the Hero Hockey India league recorded a viewership of 41.4 million.⁵¹ Going forward, media planners expect these properties to increase in popularity and attract more sponsorship and viewership. Sports like Formula 1 and Golf, once limited to the developed nations, are also finding takers in India. Going forward, their popularity is expected to further increase given their affluent audience, which could be targeted by brands thus increasing the sponsorships. Another new entrant in this area is the Super fight league started in 2012. Over the past, Mixed Martial Arts has developed into a highly respected sport with a global audience and Super fight league marks its entry in India.

Broadcaster's perspective

Broadcasters too are shaping the sports scenario in the country by increasing coverage of non-cricket sports properties. While Cricket still reigns supreme in terms of monetization potential, other newer or international concepts are being rapidly taken-up by the sports broadcasters as a key differentiator to break away from the cricket fatigue.

Star India has repositioned itself post retiring the ESPN brand. It has a bouquet of six channels in India. Star Sports has broadcasting rights of English Premier League, Spanish La Liga, Italian Serie A and FA Cup.⁵² Star India has also made equity investment into a joint venture to run the 'Indian Super league', franchise-based IPL styled football league, to be launched in India by IMG-Reliance. Star India has acquired the

broadcasting and sponsorship rights for the league.⁵³ Within Cricket, Star India is going beyond International cricket and also looking at good quality domestic and university cricket content. Further the broadcaster has plans to launch a Hindi channel as well as content in other languages such as Tamil, Kannada, Marathi and Bengali. With an investment of ₹20,000 Crore, Star India is betting big on sports in India.⁵⁴

Other Broadcasters too have also taken bold steps. Zee launched Ten Golf in 2012, a dedicated 24-hour golf channel. Neo Sports describes itself as a general sports entertainment and cricketing channel and has undertaken steps to consciously become a five sport channel as opposed to just a cricket focused broadcaster.⁵⁵

Bottom line:

Though Cricket still reigns supreme in the country, new non-Cricket sports properties are expected to emerge and gain popularity in the country.

- Driven by the success of IPL, other sports such as Hockey, Badminton and Football have also leveraged the model to build similar properties, which are being lapped-up by broadcasters and sponsors alike. Further, the popularity of such sports is expected to continue to witness an upswing.
- The broadcasters too are going beyond cricket in order to satiate the growing demand with a focus on specialty channels and non-cricket properties.

Telecommunications

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Short Messaging Services versus Instant Messaging: Value versus volume

Deloitte predicts that in 2014 instant messaging services on mobile phones (MIM) will carry more than twice the volume (50 billion versus 21 billion per day) of messages sent via a short messaging service (SMS).⁵⁶ This is a significantly greater ratio than in 2012, when 1.1 instant messages were sent for every text message.⁵⁷ It might be supposed that the growth in MIM is coming at the expense of SMS and mobile carriers. SMS volume declined to 2 SMS per day in July 2013 from 9 SMS per day two years back in India.⁵⁸ Similarly revenue from SMS has fallen to 3-5 percent of total revenue, from about 7-8 percent about a year back.⁵⁹ However, despite the burgeoning volumes of messages carried over MIM platforms⁶⁰, we expect SMS to generate more than \$100 billion globally in 2014, equivalent to approximately 50 times the total revenues from all MIM services.⁶¹ This might be slightly different in India as operators have reduced low cost SMS plans due to regulatory changes; resulting in subscribers using other means to communicate.

So MIM services may win the battle for volume in 2014, but SMS will be victorious in revenue terms. We expect SMS to continue to generate significantly greater revenues than MIM even as far out as 2018, by which point global SMS revenues are expected to have started falling.⁶² We would also expect MIM services on mobile phones to continue to substitute not just for SMS, but all other forms of communication, from e-mail to phone calls.

Text messaging's superior revenue-generating ability is due to three main factors: ubiquity, technology advancement and business model.

SMS is the one messaging standard common to almost every mobile phone.⁶³ There are 870 million mobile phone subscribers that can send and receive SMS in India.⁶⁴ Especially in India, maximum subscribers use basic feature phones (81 percent of the total mobile market)⁶⁵, where SMS serves as the ideal messaging tool. MIM is popular, but it requires a smartphone, tablet or MP4 player. It also needs a mobile data plan, or a connection to a Wi-Fi network. Both are ubiquitous in some regions in the world, but in India, only a small number of people have mobile broadband, and even fewer have fixed broadband. Internet or other telecom technologies are not yet fully advanced, thus retaining SMS an edge. Still India has not fully migrated to the

3G technology and 4G is far away due to the price and limited coverage. 2G is mostly opted by the Indian masses due to its cheaper rates but do not deliver the user experience demanded by the high bandwidth social media apps. The trend has started to reverse with fall in 3G data tariffs, increased smartphone penetration and rise in the youth population.

Further, many over-the-top (OTT) providers are incompatible with each other. Communication via an OTT service requires all parties to have the same app. A WhatsApp customer cannot message a WeChat user directly. In order to communicate, the requisite app would need to be downloaded, otherwise SMS would have to be used.⁶⁶

Some MIM services only work with a single brand of phone. When sending a message to someone using a different manufacturer's phone, SMS is the choice by default. While SMS is common to all smartphones, most smartphones are likely to send far fewer SMS than MIM messages in 2014.

MIM's lower direct revenues may also be due to the provider's business model. Some MIM services are a value-added offering to all users of a manufacturer's device. For example Apple's iMessage service is a feature of the device ecosystem and there is no subscription involved.⁶⁷ Facebook's communication services for mobile devices arguably help drive mobile advertising revenues. Some services such as WhatsApp seem to be focused, at least for now, on capturing the largest possible user base, and are not focused on revenue. Other services such as Wechat may focus more on the value from accumulating large volumes of users, to whom value-added services can subsequently be sold.⁶⁸

It is also important to note that while MIM and SMS are based around messaging that is predominantly text based, there are subtle but fundamental differences, which engender different behaviors. MIM is based around two-way communication and an interchange of quick-fire responses. Presence awareness often acts as a signal for one correspondent to start conversing with another – or multiple others. Further, instant messaging's origins are as a free-of-charge PC-based service. By contrast SMS is more about individual, paid-for messages, for sending information.

MIM and SMS are likely to be regarded as direct competitors in 2014.⁶⁹

One analyst estimated that in 2013, MIM depleted global SMS revenues by \$32 billion. A single text message costs about 50 paise to send, but an MIM consisting of 160 characters of text may generate less than 5 paise⁷⁰, and the MIM provider may not earn anything from this.⁷¹ Given the rising volumes of MIM messages in 2014, the implicit loss might be even higher.⁷²

According to the Global Mobile Consumer Survey conducted by Deloitte, almost two-third of smartphone owners regularly use MIM in India. In 2014 it is very likely that trillions of MIMs will be sent in place of a text message. But it is also very likely that, billions of times per day, MIMs will also be sent instead of e-mail, tweets or other forms of communication such as phone and video calls.

SMS's significant revenues and margins in 2014 are likely to contrast with the challenges facing some standalone MIM service providers. The latest transition in the Indian market is witnessed with the entry of more than 100 MIM players.⁷³ Competition between MIM providers may prevent significant profitability from being achieved.⁷⁴ With some providers relying on revenues from app purchases or one-off annual fees, average revenue per user is low. For example, WhatsApp is subscription-based and free for the first year and then it charges users with an annual fee of ₹55 on most mobile platforms. LINE generates maximum of its revenues from voice calls and stickers.⁶⁹ As more services become available and competition increases, some providers like WeChat and LINE are forced to buy TV ad space to raise awareness rather than relying on free viral marketing.⁷⁵ Indeed the MIM business model may face substantial challenges in 2014, and the upper limit on revenues may be surprisingly low.

But while MIM may be taking revenue from mobile operators in the form of lost text messaging, it may also be driving demand for mobile broadband. And in 2014, revenues for mobile broadband may overtake SMS.⁷⁶ While it is difficult to assign an exact value for the impact of instant messaging on the take-up of mobile broadband, it is sizable, and should become larger still over time, as MIM services are used increasingly to send large audio and larger video files. A one minute-long video sent via MIM can be more than 100 times larger

than a text-only MIM. MIM eases use of video, audio or photo sharing. While sending multimedia message is not only limited to smartphones, it is also expensive at the same time.

The number of text messages is capped in few mobile plans, thus charging for each additional text message sent thereafter. This drives users towards MIM for broadcasting unlimited messages and freely chatting without exceeding the allotted limit.

Operators have started collaborating with the OTT players rather than acting as dumb pipes. Some provide bandwidth to the MIM players while others are entering partnerships, such as Reliance with WhatsApp and Airtel with Facebook.

Bottom line:

Text messaging is at its peak but in 2014 it should still generate significant margin for the mobile industry. Its importance should be neither overlooked nor underestimated.

There are several ways for operators to respond to the negative long-term outlook for SMS:

- Try and create an operator-owned OTT messaging service to rival the existing providers. For this to work as well as SMS, it would need to be a global standard; if the industry relies on opt-ins on a per carrier basis, adoption is likely to be too slow.⁷⁷
- Incorporate MIM-type features into SMS, such as by replicating the ability to send messages to groups easily, and to include audio and video clips. Presence functionality may also help.
- Rather than competing with MIM services, efforts must be made to encourage their adoption, so as to encourage take-up and usage of mobile data. Carriers should evaluate the merits of exposing network and data assets to OTT players via APIs (Application Programming Interfaces).⁷⁸ Given that MIM services tend to have low consumer loyalty, carriers could help improve the dynamics of OTT MIM, whilst at the same time positioning themselves to capture a share of MIM revenues.
- Encourage the usage of SMS as a bearer for application to person (A2P) messages, which are used to send personalised messages to individuals, from advice of bank balance, to warning of a delay to a flight, to a reminder for a medical appointment. One analyst has estimated that A2P messaging volumes could grow an average 6 percent per annum over 2013-2017.⁷⁹

Standalone MIM service providers aiming at maximising revenues may need to diversify their income streams. Some providers may become content platforms. Standalone MIM providers may also want to generate additional revenue from advertising, but this might cause some users to change their service.

Phablets are not a Phad

Deloitte predicts that in 2014 shipments of phablets, smartphones with 5.0-6.9 inch screens, will represent a quarter of smartphones sold, or 300 million units globally.⁸⁰ Similar sales trend, i.e. about quarter of smartphones sold, is likely to be observed in India. This is double the 2013 volume, and ten times 2012 sales. Phablet revenues should be about \$125 billion, implying a \$415 average selling price, which is about 10 percent higher than that for smartphones as a whole.⁸¹ The segment of phablet grew 17 times year-on-year, accounting for 30 percent of smartphones sold in India in the second quarter of 2013.⁸² But after initial rapid consumer success, 2014 may mark a 'peak phablet' year, as only a (sizeable) minority of smartphones users will want to handle such a large device.

But even at 25 percent of the market, it is tempting to ask: "Where are all these large-handed people, and where do they buy jeans big enough to fit their phablets?"

Two thirds of phablets in 2014 will be less than 5.1 inches, just meeting the definition, and less than 10 percent are likely to be 6 inches or larger.⁸³ About 25 percent of 2013 phablet sales were new versions of existing devices that enlarged the screen and shrank the bezel, rather than actually making the phone larger.⁸⁴ Low priced phablets with dual SIM and price tag of about ₹10,000 are an attractive proposition for Indian consumers.

There are various explanations as to why phablets are so much more popular in some markets than others. One theory is that the phablet may be a superior mobile gaming device. Another possible explanation is that for a small portion of the population, especially in urban settings with crowded mass transit systems, phablets are acting as an all-in-one device that combines the features and functionalities of a smartphone, portable gaming unit, tablet and PC.⁸⁵

The larger phones and greater data usage is correlated in a way to point towards a higher rate of engagement. As per analysts, in India data consumption on phablets surged by 123 percent, while devices with 3.5 inch displays witnessed a steep fall of 30 percent.⁸⁶ Users are keen to use the phablets for accessing social media, navigation, video, retail, and music apps.

Another possible explanation relates to language, and may explain why phablet sales in much of Asia Pacific are strong. Hindi is more complex, and texting may be easier on the large screens and larger virtual keyboards of phablets.

Prior to 2007, the average smartphone screen was very small: the need for a physical keyboard meant that the screen area was typically 2.5 inches or less, even for large devices. The arrival of capacitive touch screens meant that the screen could expand to occupy most of the smartphone, boosting size to 3.5 inches. At first that seemed more than big enough, but manufacturers tried out something slightly larger and four-inch screens began to sell in small volumes. Over time, there seems to be a 'screen creep', where phones that were deemed too large to use at first have become the new normal over time.

Therefore, it seems reasonable to ask whether there is any limit to screen inflation, and what percentage of the smartphone market might be captured by phablets, especially those over 5.1 inches?

The human body and clothing are almost certainly limiting factors, for several reasons.

Most smartphone users want to type on their device with only one hand, at least some of the time. Even for a big person with big hands, that normally requires a phone less than six inches⁸⁷, and many smaller people may struggle with phones bigger than 4.3 inches.⁸⁸ While some users may be willing to use two hands on their phone, and some software techniques make one-handed use easier on a phablet⁸⁹, it seems likely that most users will prefer smaller devices.

Next, many smartphone users may not want a phablet that appears out of scale next to their head when making voice calls. Some people may use a headset, or make very few calls, but they are likely to be in minority. Finally, there is a 'pocket' of users who habitually carry their smartphone in their jeans, jacket or purse. Although one clothing manufacturer increased its front pocket size to handle larger phones⁹⁰, it seems likely that many consumers will not consider a phablet because of stowage reasons.

Given the sizes of the various groups who will not want a phablet as their everyday phone, it seems probable that they may have an upper limit of between 30-40 percent of the total smartphone market, which suggests that their market share may reach a plateau in either 2014 or 2015.

A complicating factor may be multi-device ownership. According to the Deloitte 2013 Global Mobile Consumer Survey, 66 percent respondents were phablet owners in India, more than 50 percent also had a smaller smartphone.⁹¹ If an increasing number of users choose to own both form factors, it seems likely that on those days when small size, lots-of-voice-minutes or one-handed usage is most important, the smaller device

will be jammed into a pocket. But when the day's usage tilts towards text, video and gaming, the larger device will get put into the backpack or purse. Ultimately, it may be more appropriate to think of the phablet as a supplementary device for many users, with very few thinking of it as their only smartphone.

It is unlikely that the buyers of phablets over the next year will be mostly gamers, texters and mass transit users. Another potentially large market is those in the 55+ age group. Currently under-represented in the smartphone market, older consumers may find the large, bright screen, comfortable virtual keyboard and audible loud-speaker just the right ingredients to persuade them to buy.

Bottom line:

The biggest difference from smartphone usage compared to phablets is likely to relate to the size of the screen. According to Deloitte survey, among smartphone and tablet users in metros, tier I and tier II cities, 80 percent of users watch video on their smartphones/tablets. Almost 40 percent of these users watched video on their devices for 15-30 minutes per visit.⁹² As more phablets become part of the installed base, the number of hours of video watched on sub-tablet devices is likely to climb. Operators will need to consider the implications of growing phablet penetration on their networks, both at the radio access network level and the backhaul level.

Further, large screens are likely to be better for display advertising and in app purchase.

Bigger screens on phablets don't necessarily mean higher quality pictures: a lot depends on pixel size. Some phablets offer true 1080p (1920x1080) screens. Others, even of the same screen size, support 1280x720 images. As at the end of 2013, no phablet has a 2160p (Ultra HD) screen; but a few have cameras that shoot in Ultra HD, and since there are seven-inch tablets with Ultra HD screens, some phablet manufacturers may offer this option in 2014.⁹³

As phablet screens move to higher resolution, the data required for video or gaming will increase sharply, with 2160p requiring 16 times as many bits as 720p, all other things being equal. Carriers' data plans will need to reflect the fact that phablet users are likely to be amongst the heaviest data users.

A challenge for website and app designers will be how to best use the larger screen area that phablets offer, with the choices being more critical for devices over six inches. For video consumption, it's not an issue: a bigger screen is almost always a better screen. But for email or web browsing, there is a fundamental design decision: do users want and need bigger fonts and larger objects, or do they want more things (at the same size) to be shown on the larger screen? For phablet buyers aged over 55, a preference for bigger fonts and larger virtual keyboards seems likely, while younger users may prefer having more information at their fingertips.

In a similar vein, device manufacturers should think about how best to use screen real estate, especially within the context of the operating system. Simply making the user interface (UI) components and features larger is unlikely to be enough to please increasingly sophisticated customers. Specific features that make the most of the screen size, such as UI components optimized for single-handed usage, or custom input devices such as styluses, may help to create a more refined and appropriate user experience.

Some smartphones support multitasking, with more than one application running in the background. Larger screens introduce the possibility of having two apps open at the same time⁹⁴; this will put pressure on application processors, graphics capacity and even memory.

Emergence of Mobile Video

In 2014, Deloitte predicts that there would be high proliferation of mobile video. Given the pressure on driving data usage and revenues, it would be the key focus area for all telecom operators. Likewise, mobile video would also be the focus of efforts by content producers, content aggregators and content distributors to increase content consumption. For end-user, mobile video would act as an alternate content consumption mechanism and would be driven by availability of affordable smartphones and 3G+ network uptake. Market is likely to see several new mobile video products and services designed around convergence of multiple services and platforms. While pre-downloaded and side-loaded form of video will continue to be a major part of the overall video consumption on mobile, Deloitte envisages emergence of innovative business models in mobile video streaming/time-restricted download space in 2014. These business models could get extensive support from the telecom companies who would be willing to maximise their data usage through high data consuming value added services (VAS).

Globally, mobile video will be one of the fastest-growing consumer mobile services. In fact, mobile video services are growing at a much faster growth rate than fixed

Internet video services. Global mobile video users are expected to grow from 435 million in 2012 to 2 billion in 2017 at a 36 percent Compound Annual Growth Rate (CAGR).⁹⁷ According to the Business Insider Intelligence 2013 survey, the penetration of mobile video among smartphone users in US doubled in just 9 months.⁹⁵ Deloitte expects similar trends of high mobile video uptake in the Indian market as well. Not only, there are many examples of 'TV Everywhere' services being launched by digital TV service providers across globe, but content providers are also developing content specifically for online and mobile video viewing.⁹⁶

Smartphones and 3G penetration in India attained new heights in 2013. Data consumption jumped 220 percent, driven by a two-fold increase in smartphone users and a 124 percent jump in data users.⁹⁸ A larger part of this data consumption comes from mobile video. Consumers are becoming screen agnostic and, are "snacking" on video content on their smartphones both inside and outside the home. Mobile television registered a 400 percent growth rate in viewership for the country's largest telecom companies as more Indians watched TV on the go.⁹⁷

Figure 5: Several players betting big on convergence, 2014



Source: Deloitte Research

In 2013, there were 51 million smartphone users in urban India.⁹⁸ Deloitte believes that this number would cross 104 million in 2014. Further, highest video consumption on mobile would be driven by smartphone users who have highest penetration in metros followed by tier I and II cities of India.⁹⁹ Although video can be accessed on feature phones, smartphone enable its users to access videos in multiple formats or easily stream directly from different video service providers. In a consumer survey conducted by Deloitte, 78 percent of the consumers mentioned their desire to use video streaming services provided by the internet video host site or by operators/over the top (OTT) service providers.⁹⁹ YouTube is one of the preferred destinations for mobile video users and makes the largest share of mobile video market in India¹⁰⁰. This trend is likely to tread into 2014 as well. Nonetheless, several mobile video service providers will gear up to provide targeted content offerings to the different segments of the customers as per their specific content need. Example of these services can be sports-specific video service for sport fans, travel and lifestyle related video services for globetrotters and news-specific content for news lovers etc.

Still, network is essential for mobile video services and seamless user experience. 2013 saw impetus on 3G; however, seamless connectivity has still been a key consumer concern. Almost 53 percent of the respondents, in a mobile video service user survey conducted by Deloitte, mentioned that they faced long buffering issues while streaming video on their mobiles.¹⁰¹ In 2014, Deloitte believes that operators will be strengthening their 3G+ networks further, which will enhance customers' video consuming experience on mobile and attract new users to the service.

Thus, cheaper smartphones, increased user awareness, stronger networks, existing and budding OTT players along with operators themselves have created a viable and sustainable eco-system for mobile video in India.

In 2014, mobile video is likely to be the preferred service over other mobile value added services. This is corroborated by the fact that when operators across India implemented double-consent regulation mandated by TRAI, mobile video service activations witnessed

the least negative impact as compared to other VAS services.¹⁰² Deloitte anticipates 50-60 percent of all the mobile data consumption in India to be driven by video over next 2-3 years.¹⁰³ Also, with improved networks and connectivity, users will increasingly consume higher resolution videos.

It is to be noted that video content that is consumed on mobile is different from that viewed on the traditional TV. This is due to the fact that content preferences differ as per consumer demographics. While females form the larger part of television consumer demographics, mobile video consumer demographics is male-dominated.¹⁰¹ Personal mobile devices make capturing accurate demographics of the consumer and tracking user activity much easier. This information can be used by the service providers for improving the service or designing an optimised business models. In 2014, various new innovative business models will emerge, designed as per the needs of specific consumer segments. Deloitte envisions that in 2014, telecom companies will alter their position from high cost dumb pipes to affordable smart networks that will support third party video service providers as well as help developing video consumption habits among customers.¹⁰⁴

In 2014, industry players would continue to experiment with business models ranging from subscription, banner ads, video ads- clickable/skipable, pay-per-use¹⁰⁵ etc. Further, the focus would be to design effective monetisation models, specific to the kind of service offered. This will be possible by offering targeted video content and services based on personalisation and recommendations. Industry players need to focus on customer behavior analytics and create recommendation engines for scientific targeting of the content for maximising the usage and hence the revenues.

Although, pre-downloaded and side-loaded mobile video are preferred by larger set of smartphone users, revenues from these modes of video consumption on mobile forms a negligible part of the overall mobile video market. This is due to the fact that mobile video consumption through these modes is dominated by pirated content. Industry players need to devise video content streaming service models based on quality and ease of access, which can compete with pirated

content and meet specific customer needs. To design these models, value chain players need to understand the key levers of this market. They can look at the levers like (i) customer segments and segment-specific content preferences (ii) historic usage and trend analysis, (iii) product/service positioning and strategic alliances with other value chain players, (iv) service delivery platforms & modes, (v) packaging and pricing options, (vi) monetization model options.

Content aggregators need to identify key customer segments and target their offerings to specific segments. A prominent genre of content on mobile that surfaced in 2013 in India was Live-TV especially GEC, News and Sports.⁹⁸ However, the consumption levels tend to vary from segment to segment. In 2014, apart from live, on-demand video on mobile service driven by genres like movies, music and other regional content is expected to generate a huge traction.

Content owners need to look at strategic alliances with mobile video platform owners and focus on creating content suitable for the mobile platforms. Mobile platforms have certain different characteristics than traditional screens like smaller screen and personalised viewership, which could be leveraged for mobile video content creation. Content owners also need to focus on management of digital rights, which would be the key for monetisation of the content. Providing seamless

support across plethora of smartphones being used in India would be key challenge for mobile video platform creators.

Telecom companies will need to create a supportive eco-system for content owners, content aggregators and other players in the value chain by providing access to their networks and other backend support system. They could leverage mobile video opportunity to increase overall data usage and data ARPU. Currently, telecom operators get the highest share (of the order of 80-90 percent) of revenue from mobile video services that depend completely on telecom operators for customer reach, wallet access, data connectivity, etc.¹⁰⁶ Deloitte believes that mobile video platform owners and telecom operators together need to devise innovative monetisation models to aid the service uptake. OTT players also need to look at ways to reach the customers and package the offerings to create the demand pull. Nevertheless, historic usage and internal analytics would make the foundation for strategic decisions and service model designs for all the successful value chain players.

So, these are the interesting times - the year 2014 presents a promising opportunity for all the mobile video players in the Indian industry. However, challenges remain and all players need to think of their strategy from their own perspective.

Bottom line:

With all the favorable factors like (i) smartphone penetration, (ii) improving high speed mobile networks, (iii) increasing demand for mobile video, and (iv) influx of new mobile video service providers; an ecosystem for mobile video market has developed. However, this market is still in its nascent stage. 2014 is likely to mark a new era in growth of mobile video in India. India will see several OTT, DTH and telecom operators themselves trying to leverage this opportunity. To be successful, focus of the players would remain on:

- Targeted Content: Customer segments / content preferences etc.
- Historic & Internal Analytics: Behavior analytics / trend analytics etc.
- Innovative Service Models: Live streaming / on-demand streaming / limited downloads etc.
- Innovative Business Models: Content owner's share / operator's share / customer wallet / sponsorship etc.
- Quality of Service: Connectivity / better quality at lower speeds etc.

'Ruggedised' Data Devices: Reinventing the business case for mobile field force

Deloitte predicts that the Indian market for rugged devices would double in size in 2014, driven primarily by new device introductions by manufacturers targeting business and government users. Until recently, there have been very few such devices targeted at the Indian market. However, given increasing penetration of enterprise mobility solutions, this trend is expected to change. Today businesses are looking at ways to improve operational efficiency by empowering the field force and the government sector reflecting on ways to drive the scope of its services to remote areas, thereby, tapping the unreachable users e.g. mobile banking.

While the specific needs will come mainly from banking and insurance segment, retail industries, and the government sector, demand is expected to be highly fragmented. Supply side is expected to be dominated by few large players, as traditionally such products are not off-the-shelf and mostly designed as per specific requirements of business or government users¹⁰⁷; however, a few other connected consumer devices (smartphone/tablet) manufacturers are likely to foray into the ruggedised device market with standardised products in 2014.¹⁰⁸ The rugged connected device market size is estimated to be worth ₹300 to 400 million in 2014.¹⁰⁹

Traditionally, only specific industries (e.g. military, healthcare, field sales, public safety, utilities, retail, maintenance, supply chain logistics and insurance etc.) used rugged device solutions. The devices were mainly rugged PCs, PDAs, handheld or embedded (mounted) devices. However now, enterprises across industries prefer their employees to access enterprise applications through tablets and smartphones. Thus, the demand for ruggedised device platforms based on tablets and smartphones is expected to rise rapidly in next few years.¹⁰⁹ Key features that are essential for these devices are long battery life, incorporated wide-range wireless, Bluetooth, network connectivity options, higher storage, latest software, better screen resolution, etc. apart from being damage resistance in harsh conditions like dust, shock, vibrations, rain, humidity, solar radiation, altitude, and adventurous lifestyle.¹¹⁰ For certain institutional users like government and military, security of the information being transmitted is a primary feature.¹¹¹

Currently, rugged connected tablets for Indian market are priced starting from approx. ₹70,000 (typical configuration of 7" display, 1024x600 pixel resolution, 1.5 GHz processor running on Android 4.0) to ₹175,000 (typical configuration Intel i5 2.9 GHz processor, 10.1" screen with 1920x1200 pixel resolution and multi-touch capabilities, running on Window8).¹⁰⁸ Similarly, handheld computing devices, rugged PCs and Laptops are available starting from approx. ₹40,000.¹¹²

Courier services like Blue Dart have been using rugged mobile handheld devices for a few years now. These devices can withstand extreme environment conditions. At the same time, the front-end applications are simple because it is used by frontline couriers. Use of these devices has reduced the delay in tracking mechanism of the parcels and documents to real time from that a few days earlier.¹¹³

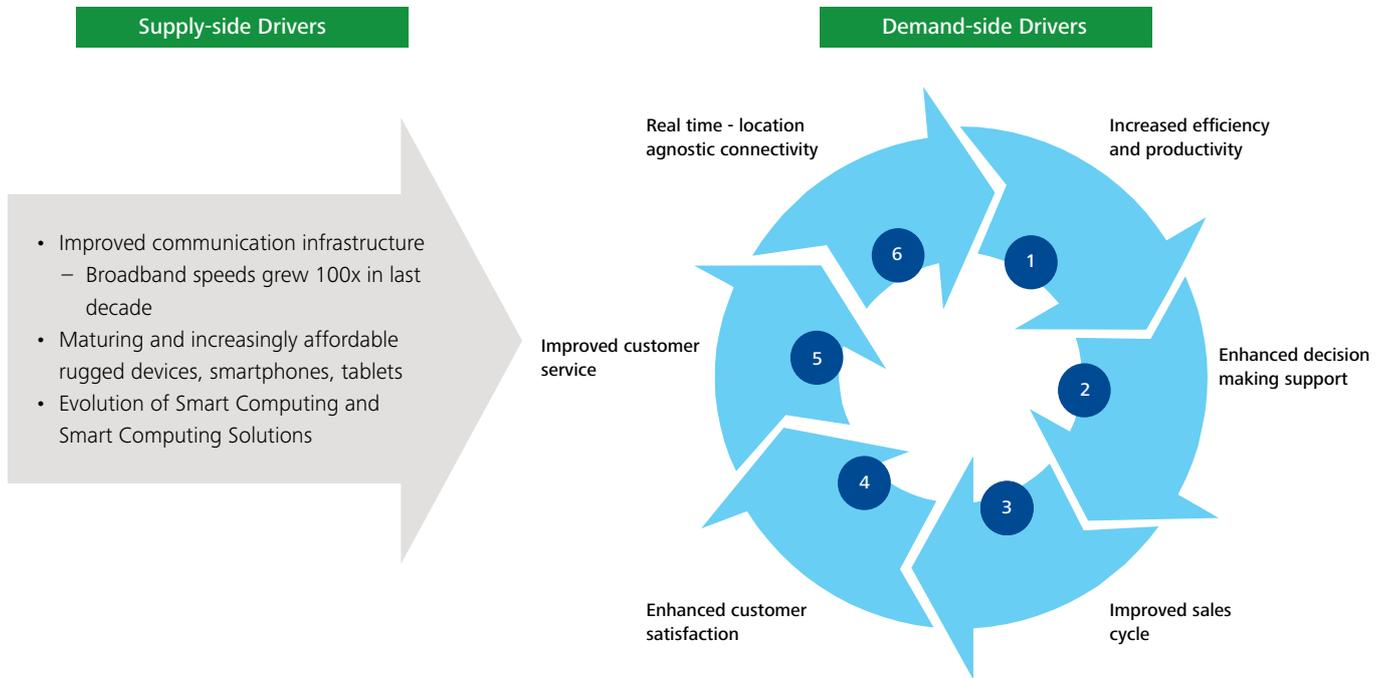
Similarly, rugged handheld devices are being used by Delhi Transport Corporation (DTC) and BEST in Mumbai for automated ticketing. This has an edge over manual ticketing system and has resulted in improved revenues by reducing leakages besides making the ticketing system commuter friendly.

Benefit of the use of mobile devices such as PDAs and ruggedized laptops is that technicians/field users have access to the whole wealth of historical and technical information when they have to carry out manual inspections or perform repairs in the plants. Further, there is no interruption or delay necessitated by going back to their desk, or to a kiosk to inspect records or review instructions. The primary reason for adoption of rugged devices in other industry segments is employee productivity improvement, enhanced employee availability and customer satisfaction through enterprise mobility. An analysis of various survey reports and Deloitte discussions with the industry sources indicate that more than two-third of CIOs are interested in deploying mobility through these devices to improve employee productivity. Other reasons for mobility adoption and hence rugged device demand are increased revenue, improved sales cycle, and competitive differentiation.

But not all field force deployments require the same level of ruggedness: for millions of existing rugged device applications and tens of millions of potential users, ultra-rugged devices may be overkill. Thus, there is a growing need to modernise the existing, first-generation mobility

deployments, often based on Windows PDAs or rugged devices. On the other hand, consumer devices over the years have become progressively robust, to cope with increasingly intensive usage patterns, and also to act as a differentiator.

Figure 6: Growth drivers of rugged and semi-rugged devices



Source: Deloitte Research

Enterprises are looking for cost-effective, mobile solutions that can positively impact organizational effectiveness and give real-time access to company data anytime, anywhere. However, the nature of field assignments mandates the devices to be always connected to the organisation networks and to be rugged for use under harsh conditions. Key demand side drivers are (i) need for location agnostic and flexible mobility solutions – e.g. solutions required for online retail and its complex supply chain; (ii) enhanced decision making support – e.g. an executive can take a decision on purchase, while on the move, based on the real-time availability of raw material data on the shop floor; (iii) improved sales cycle – e.g. leads generated across channels can be segregated and delivered in real time to the mobile devices of the field force, which can help agents pursue the leads in a much efficient manner; (iv) enhance customer satisfaction - through delivering information in real time, responding to customer queries at the earliest e.g. real-time of the courier service. Key supply side drivers are (i) improved communication infrastructure – 3G+ network roll out and slashed data prices; (ii) increasingly affordable smartphones and tablets both rugged and semi-rugged; (iii) evolution of smart computing and associated solutions. There is a

confluence of supply and demand drivers powering the rise of mobility through the use of rugged and semi-rugged devices.

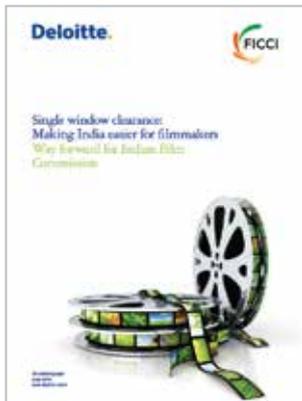
In 2013, a few large mobile phone manufacturers launched “semi-rugged” versions of their high-end smartphones.¹¹⁰ These devices are tough, dust and water resistant but do not meet the rugged standards (like MIL-STD-810). Demand for such devices, which are rated at least IP65¹¹⁴, would increase given the developing consumer habits of being always connected - be it while jogging, travelling, in rain etc.¹¹⁵ Today’s smartphones and tablets need to be able to cope with thousands of hours of active use in their life time, and many thousands of hours being carried around in pockets and bags.¹¹⁶ Moreover, these devices become rugged to some extent with the use of a suitable case. Currently, such devices are available with starting price of approx. ₹30,000.¹¹⁷ This adoption of consumer-grade rugged devices is likely to speed up under bring your own device (BYOD) policies.¹¹⁸ In 2014, Deloitte expects multiple new smartphones/ phablets to be launched in “semi-rugged” device category, blurring the demarcation between consumer and rugged devices.

Bottom line:

In 2014, alongside continued utilisation of existing models of rugged data devices, Deloitte expects a large number of additional deployments of standard, consumer smartphones and tablets for field force workers, with the only adaptation required being an additional body case. This would enable low cost solution with specification sufficient for a field force worker: a 1.5 GHz processor, high RAM, a toughened screen (4.5 inches or larger), Wi-Fi, Bluetooth and cellular mobile. The challenges would continue in the form of security and protection of data in case of theft of devices, etc.

Further, improved network connectivity and lower data prices across telecom operators (later half of 2013 saw data tariff cuts – 2G services by up to 90 percent and 3G services by up to 33 percent - by all major operators)¹¹⁹, organisations would prefer 24x7 connected rugged devices that can access and update data in real time. A growing range of consumer smartphones and tablets would be water-resistant and dust-proof, which would make them much more suitable for field use. Also device and application developers should look at adding the requisite data security features. These advanced mobile handheld devices would enable more-efficient field service for workforce or asset management and customer service improvement across industries.

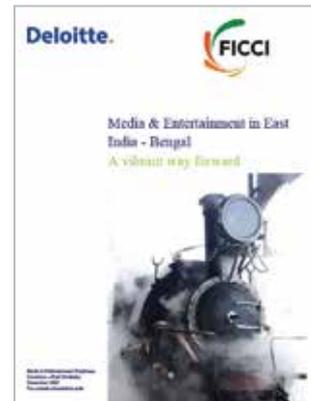
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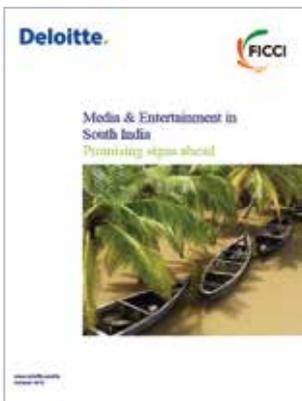
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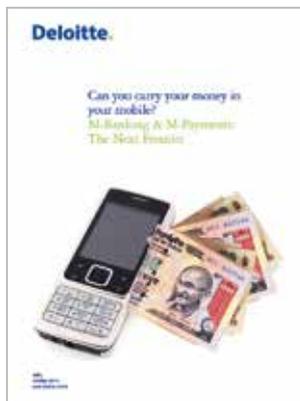
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