

## DIGITAL REVOLUTION AND NEW INDIA

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### ABSTRACT

*Digital technologies and how we use them are changing the face of business, even as those technologies that underlie computers, robots, and smart equipment are rapidly evolving, becoming more powerful, and transforming organizations much faster than in the past. Significant competitive advantage is now achievable from digital innovation and transformation. This special issue aims to generate understanding of some of today's issues and looks at opportunities for tomorrow.*

### INTRODUCTION

Digital Revolution is all about evolving for better tomorrow. As defined, revolution refers to a sudden transformation of human endeavor. This transformation can have major impact in different ways on different cultures, economies and above all the mankind. The widespread progress of computer technology paved the way towards the prime concept–Internet, which led to technology becoming the central axis for extensively redefining **digital technology**.

The digital revolution has never been about technology, but more to do with people and how they get impacted in their day to day life. This also led to the widespread transition of telecommunications creating innovative ways of working and socializing. Digital Revolution completely transformed the way information dispersed across various sectors of the globe; providing grounds for businesses to move beyond the national markets to other markets, thereby reaching international markets, increasing the inter-connection of the world.



The key for digital economy is digital banking and finance systems which will need digital literacy and high trust factor. Accordingly, the publication delves into different aspects of the development of a digital society and looks at the technology adoption and related challenges.

We believe that the growth and development agenda for the next few decades should not only focus on economic progress to cater to rising aspirations of young Indians but also in achieving that in a sustainable manner. To this end, the technical and managerial capabilities of public and private sector, under the comprehensive framework of Digital India, can be leveraged to take India into the digital age.

### **1. JAM: Jan Dhan 240M+, Aadhaar 1B+, Mobile 1B+**

JAM Trinity is the next big reform for direct subsidy transfer to the Indian citizens. The economic empowerment of citizens demands a continuous connect between the citizens and the government. For a successful service provision model, the government needs to identify the citizens, create a platform for transfer of services and ensure last mile delivery of services to the underprivileged. Seamless integration between Jan Dhan, Aadhaar and Mobile will help in the Direct Benefit Transfer but needs some reforms in the financial ecosystem.

### **2. 4G, fiber and satellite: Providing seamless connectivity**

Optic fiber has emerged as the dominant technology across wholesale infrastructure while wireless broadband dominates at the access level. The slow pace of fiber deployment can create impediments in multiple growth initiatives. These challenges need to be addressed suitably to realize the vision of digital India.

### **3. Technology innovation: Boosting rural, women, governance**

The rapidly changing economic and social landscape in India requires continuous investments in physical, digital, and policy infrastructure.

Economic growth and demographic dividend present an unprecedented opportunity for India in the global economy in the coming decades:

- Robust consumer sector: India's consumer market is expected to grow 3.6 times from 2010 to 2020
- Rapid urbanisation: 38% of India is expected to be urbanized by 2025; 49 metropolitan clusters are expected to account for 77% of India's incremental GDP
- Thriving market for talent: As per a NASSCOM report, almost half the Fortune 500 companies are expected to be based in emerging markets

### **4. Digital wallets, payment banks, UPI: Moving to cashless**

Increased innovation and acceptance of digital payments is resulting in greater digital banking activities. At different stages of conceptualization, these payment mechanisms face challenges in varying degrees and nature.

The Digital Revolution will bring an increasing reliance on self-service technology, sensors, machine-to-machine (M2M) communication, and artificial intelligence (AI). These will transform the workplace as menial tasks and some non-routine jobs are digitized through robotics and process automation. These systems will make businesses more efficient.

AI will be pervasive. Based on advances in computing, automation will include the processing of languages, images, and data. As paper is removed and processes automated, clerical work will be eliminated. Other jobs that will be impacted include customer services, sales, and support.

Robotics and 3-D printing will render low- and even middle-skill-level jobs redundant. Extreme automation will make robotics more mobile, giving them a greater range of movement and functionality. M2M communications will enable machines to process data and make decisions based on this data as we move toward more intelligent, cognitive systems. In many cases, the intelligence that these systems deliver will be more accurate, immediate, and safer than humanly capable.

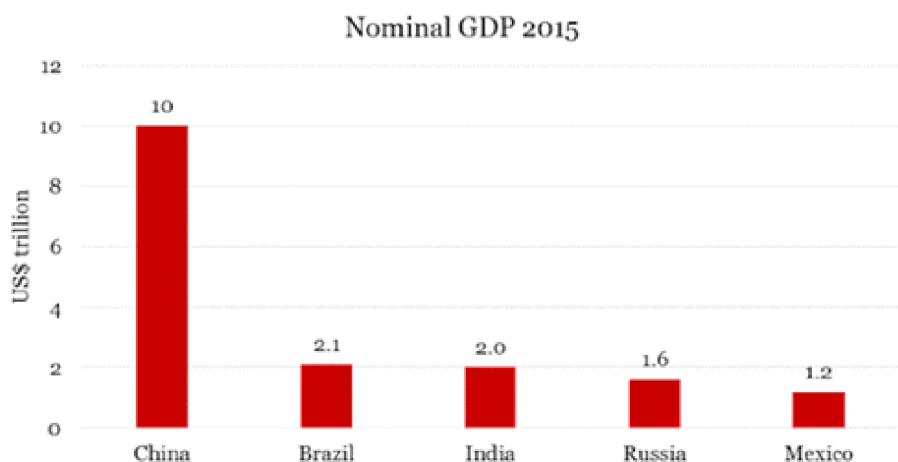
Digital is playing a larger role in our economy. By 2020, 25 percent of the world's Gross Domestic Product (GDP) will not be touched by a human hand. This is significant. A quarter of the world's GDP will be digital.

The economic impact of digital is vast. Internet maturity correlates with wealth creation. It is used by companies in every industry. Businesses that use the Internet tend to grow more quickly, export two times as much as those that don't, and create more than twice as many jobs. Despite these statistics, many companies are off to a poor start on the journey toward digital transformation. While organizations are taking advantage of digital technologies, many economies remain digitally immature. This means that the ability to unlock the value of digital is far from being realized.

### **India is on the verge of a digital revolution**

China is the big kid on the playground in east Asia. But it's increasingly India – the world's fastest-growing large economy – that should get more attention... even (or especially) when it comes to the "internet of things" and the tech revolution.

In case you forgot: India has the world's second-largest population, and the world's seventh-largest economy. In 2015, its economy was the same size as Brazil's (and is likely now bigger) and was larger than Russia's.



Source: The Economist Intelligence Unit; IHS;  
McKinsey Global Institute analysis

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But even with a US\$2 trillion-dollar economy, India is still very poor. Last year, India ranked 145<sup>th</sup> in the world based on per capita GDP.

But according to a report by global management consultants McKinsey & Company, extreme poverty has fallen sharply. In 1994, 45 percent of the population lived in extreme poverty. As of 2012, 22 percent, or around 270 million people, lived in extreme poverty.

But that's not the full picture. McKinsey estimates that 56 percent of the population (680 million people) don't have enough money to meet "minimum acceptable living standards." These cover basic levels of nutrition, water, sanitation, energy, housing, education, and healthcare

### The technology sector is set to explode

Technology is going to grow far faster than India's economy as a whole. India already has over 1 billion mobile phone users. It also has the second-largest online population in the world (after China), with 462 million internet users. These huge numbers of users are laying the groundwork for explosive growth in other technologies like the mobile internet, digital payments, cloud computing and the internet of things.

### India: On the Verge of a Digital Revolution

|                                       | 2015                                                                                                           | Potential in 2025                                                                                                                                                          |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Internet access and smartphones       | ~200 million smartphone users<br>~350 million internet subscribers                                             | 700 million - 900 million smartphone users with mobile internet access                                                                                                     |
| Cloud computing                       | ~2 million cloud computing users                                                                               | ~20 million cloud computing users<br>(~50 percent of all small and medium enterprises)                                                                                     |
| Digital payments and digital identity | 1 billion digital transactions<br>~1 percent of addressable transactions linked to verifiable digital identity | 12 billion digital transactions across 6 million small and medium-sized enterprise users<br>~100 percent of addressable transactions linked to verifiable digital identity |
| Internet of Things                    | <1 million connected devices                                                                                   | 3 billion - 10 billion connected devices                                                                                                                                   |

Source: McKinsey Global Institute

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When you talk about numbers for countries like India and China, it's like talking about the universe – it's hard to comprehend the numbers involved because they're so big. 10 billion washing machines, refrigerators, mobile phones and microwaves connected over the internet of things – in one country – is that kind of incomprehensible big number.

If these technologies are adopted as much as expected, these applications could have an annual economic impact of US\$500 billion to US\$ 1 trillion per year in 2025, according to McKinsey. That would represent 20 to 30 percent of India's incremental economic growth between 2012 and 2025.

India will have to deal with enormous challenges before joining the economic premier league. So just because it's a great long-term growth story doesn't mean it's the best investment for your portfolio at the moment. But as we've written recently, if you get the big picture right, it helps a lot. And because of its size and economic trajectory, India is painting a very big economic picture.

## REFERENCES

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