

Why India's digital infrastructure is a dynamo for jobs and economic growth?



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We may not realize it, but as consumers, many habits have radically changed in the last twenty years. For instance, the weekly visit to the bank to withdraw cash is a thing of the past. Visits to a government office to update a PPF passbook, ration card, or gas cylinder is an obsolete process. The impact of digital is so ubiquitous that from hard-to-get electronic goods to rare manuscripts, everything is available online.

It is difficult to pinpoint exactly what hyper-accelerated this digital revolution - it could be the Covid-19 pandemic which necessitated remote work. Or it could be attributed to the relentless pursuit of excellence and innovation by our government and e-commerce businesses. Digital technologies have literally pushed the envelope in favor of collaboration and the economy. India's success is best exemplified by digital innovations such as Aadhar, DigiLocker, GeM, and UPI, which are guiding several countries in catalyzing economic growth.

Scaling economic benefits

Programs such as Aadhar have enabled nearly 135 crore Indians financially. In the case of UPI, an exchange of Rs 12 trillion last month is evidence of just how successful digital infrastructure could be. Government initiatives

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such as DigiLocker, which boasts some 4.5 billion documents, have certainly enabled transparency. But they have also contributed significantly to the growth of digital businesses for aggregator models and other startups. India's economic growth catalyzed by digital initiatives is also a major cue for economies across the world.

According to an RBI paper, the core digital economy increased from 5.4 per cent of GVA in 2014 to 8.5 per cent in 2019. India's digital economy, which is estimated at nearly 22 per

cent of the core economy, grew 2.4 times faster than the traditional economy and has generated employment to the tune of 62.4 million or 11.6 per cent direct jobs.

Across the world, China is focusing on 5G networks and artificial intelligence, while the Biden administration in America has recently proposed a \$65 billion investment in broadband as part of its digital infrastructure. Across the world, policymakers have taken a keen interest in architecting data centers, cloud computing, and smart cities for digital infrastructure. Examples include countries such as South Korea, Singapore, Japan, the UK, Germany, France, and Australia, which are investing in digital infrastructure to support economic growth and innovation.

Inside the den of Digital Infrastructure (DI)

To the uninitiated, digital infrastructure comprises a range of components that enable digital connectivity, data storage and processing, and cybersecurity. These components include broadband networks, wireless networks, cloud computing, data centers, cybersecurity technologies, and digital skills. Digital infrastructure refers to the underlying technology and systems that enable BOTH digital connectivity and data transfer.

Besides supporting mobile computing, wireless networks support a wide range of applications, including internet of things (IoT) devices, smart cities, and autonomous vehicles. On the enterprise front, Cloud computing enables flexible and scalable IT solutions that can support a wide range of applications. Cloud computing enables businesses and organizations to access computing resources and data storage over the internet rather than relying on physical servers and storage devices. Facilitators in the form of Data centers for reliable storage and processing of data, measures around cybersecurity and digital skills make the DI a competitive and enabling force.

A digital edge for the common person

The common person is ultimately the winner of this digital ramp-up. A digital mode of life enables several services that improve access to information. On one end, cashless transactions and digital payments offer convenience, while on the other end, telemedicine and remote interventions improve access to healthcare services. Digital programs have also enabled e-learning which the traditional and formal education systems failed to reach. Besides unlocking access to information, digital infrastructure armed with the internet and mobile networks provides faster access to news and information previously unavailable to millions. In addition to the democratization of information, the digital infrastructure ecosystem creates new jobs and career opportunities.

The new tomorrow

From a corporate perspective, digital tools enable efficiency with their ability to automate manual tasks such as data entry, inventory management, and even invoicing. This not only saves time but also reduces errors and costs associated with physical infrastructure, such as office space and paper-based processes. Additionally, it can help companies identify and eliminate inefficiencies in their operations. For new organizations, a digital ecosystem makes it easy to reach customers irrespective of geographic location.

Better analytics and insights enable enterprises to fine-tune customer offerings and personalize experiences. Technology also enables employees to collaborate and communicate more effectively, regardless of their physical location leading to increased productivity and faster decision-making. Digital infrastructure is hence critical to sectors such as e-commerce, financial services, healthcare, education, manufacturing, transportation, and logistics. Industries such as agriculture are promised greater transparency, faster achieve sustainability.