

Impact of E-commerce and Digitalization in Growth of Indian Economy

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Abstract

In the modern world, digitization is a major economic force, so it is crucial to integrate the economy by developing digital markets. Recent studies reveal that emerging economies are more likely than developed economies to benefit from e-commerce. There are opportunities to boost manufacturing in emerging economies. The nation's digitalization is the focus of the government. The 2015-launched "Digital India" project provided a solid foundation to expand digital operations across numerous industries. Rural residents are now much more aware of advances in numerous sectors thanks to internet connectivity, which has also opened the door for rural residents to participate in mainstream growth. India's sizable young population is one reason why e-commerce is growing in popularity. India is one of the nations with the quickest growth. The paper discusses the impact of digitalization process on e-commerce in India. It also emphasizes the expansion of e-commerce in the nation and the contribution of digitization to the improvement of the economy.

Keywords: Digitization, economic growth, e-commerce, Indian economy

INTRODUCTION

Internet usage and e-commerce sector in India has become one of the fastest-growing industries in the nation, with growth sped up by a change in consumer behaviour brought on by the COVID-19 epidemic. Starting with the traditional economy, India is now approaching towards economy worth the giant "\$1 Trillion".

According to Ravi Shankar Prasad Former Minister of Information Technology. The state of a nation or region's economy is defined as the supply of money, the production and consumption of products and services, and other related factors. Industry forecasts predict that India's consumer digital economy would reach US\$800 billion in 2030, growing by a factor of 10 from 2020. Private equity/venture capital investments in the sector increased by 370% year over year in 2021.

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Online activities like e-commerce and digital payments are expanding quickly as internet penetration rises and smartphone usage rises. The pandemic has expedited the rise of the next generation of digital consumers, placing India among the world's digital economies that are expanding the fastest.

The COVID-19 pandemic's impact on consumer behaviour has made the internet and e-commerce

one of the fastest growing industries in India. Online activities like e-commerce and digital payments are expanding quickly along with the adoption of the internet and smartphone usage [1].

Digital Economy: One of the main forces influencing the ongoing changes in the globe is digital transformation. Digital transformation isn't really about internet "unicorns" at its foundation. Using cutting-edge technology to perform your current tasks more effectively is the goal.

The digital economy is the area of the economy that is driven by the billions of daily interactions that occur online between individuals, businesses, devices, data, and processes. Hyperconnectivity, or the increased interconnectivity of people, organizations, and machines as a result of the internet, mobile technologies, and the internet of things (IoT), is the foundation of the digital economy (Figure 1).

Indian Consumer Internet and E-commerce in 2021

Before the epidemic disturbed our daily routines, India had already started the move to a more digital way of life, whether it be through online shopping, cashless transactions, telemedicine, online learning, or over-the-top (OTT) media. The nation's digital infrastructure is growing quickly, and the emergence of a new generation of innovative entrepreneurs is encouraging the growth of the digital economy [2].

India is well positioned to be one of the leading digital economies globally as it develops a strong digital infrastructure (Figure 2). Cutting-edge digital platforms, last-mile distribution networks, and digital payments support a favourable ecosystem to meet digital needs, which also makes it a desirable investment destination for investors from around the world [3].

RESEARCH METHODOLOGY

The study is founded on secondary data that has been found online, in magazines, and in journals. This essay is conceptual in nature. Knowing more about the idea, its use, and the effects on the economy is the main goal.

Therefore qualitative data have been used in this paper [4].

SECTORAL VIEW: STORY OF UNIQUE OPPORTUNITIES

1. Indian internet start-ups come of age
2. Edtech—challenging the traditional
3. Fintech—building future-ready banks
4. Agritech—a move towards digitization
5. Hyperlocal—solution in a click
6. Gaming competition—in the digital era
7. Health-tech—reshaping Indian healthcare
8. B2C e-commerce—competition in the digital era
9. Social commerce—interaction to transaction
10. Travel and hospitality—transforming through innovation
11. Logistics tech—end-to-end optimization
12. Online classifieds and services in demand
13. Mobility gearing up for electrical vehicles (EV)
14. Payment and wallet—contactless to cashless

Indian Internet Start-Ups Come of Age

In India, 2021 was the year of start-ups, with more cash being invested in new businesses at all stages of development (Figure 3). Consumer internet and e-commerce businesses raised US\$38 billion in 2021, up from US\$8 billion in 2020, as a result of substantial investments made in the fintech, hyperlocal, and e-commerce sectors as the Indian start-up ecosystem continues to develop.

Digital Economy Metrics	USA	China	Southeast Asia	India
Internet penetration	89%	72%	64%	43%
Internet users growth (2016-21)	8.3%	43%	33.3%	124%
Smartphone growth 2016-21 (no. of connections)	17.0%	30.7%	55.3%	132.2%
Real-time online transactions 2020	1.2 b	15.7 b	5.6 b	25.5 b
Retail e-commerce growth 2021	17.9%	18.5%	14.3%	27.0%
Network Readiness Rank*	4	29	NA	67

Figure 1. Digital infrastructure across key growth economies.
 Source: ACI Worldwide, World Bank, InternetWorldStats, eMarketer, TRAI, EY analysis



Figure 2. Evolving consumer behaviour, businesses embracing innovation and start-up surge powering the digital growth.
 Source: EY Analysis, Snapbizz, Kantar, Cowin website, Digilocker website, media articles, Indian Economy

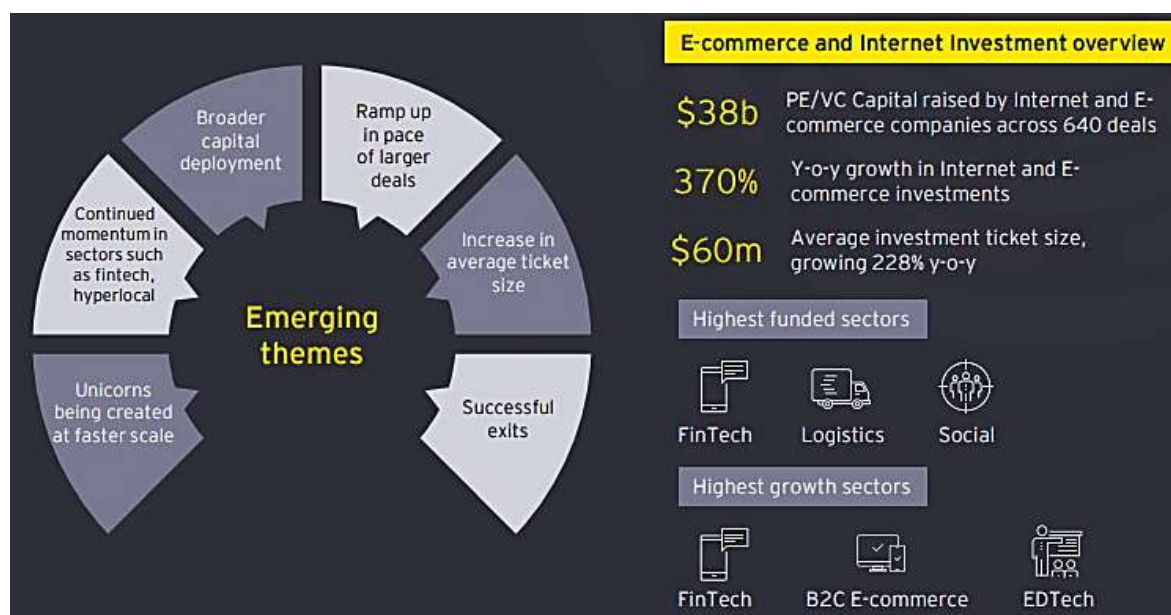


Figure 3. E-commerce and internet investment overview.

Increased late-stage investments also led to the emergence of Indian tech unicorns, with over 30 unicorns emerging in the areas of fintech, B2C and B2B e-commerce, and payments. As consumers embrace B2C platforms across sectors such as health and fitness, education, wealth and asset management and financial trading, the sector is expected to witness broad-based growth. This has strengthened investor confidence in the sector for both Indian and foreign investors, driving up the funding for internet start-ups [5, 6].

EdTech—Challenging the Traditional

The COVID-19 pandemic and the ensuing lockdowns have made a hybrid model of education necessary, which has resulted in the growth of EdTech enterprises in India. The EdTech market witnessed strong adoption in 2021, driven by increased digitization, growth in start-up ecosystem, evolving consumer base, demand for non-academic courses from tier II and III cities and the need for personalization (Figure 4).

Start-ups

Looked beyond traditional segments to expand offerings in doubt solving, coding, gamification and employability segments. They upgraded their offering through investments into artificial intelligence (AI), virtual reality (VR) and blockchain.

FinTech—Building Future-Ready Banks

India has developed into the third-largest fintech ecosystem in the world and has one of the fastest-growing economies worldwide. In India, fintech concepts like paperless financing, mobile banking, WealthTech, InsurTech, purchase now pay later, and others are already widely used.

Indian FinTech Industry Continues to Outpace the World with Rising Adoption

The Indian fintech sector is anticipated to reach US\$31 billion in 2021 and is one of the fastest expanding fintech markets globally. Over 67% fintech companies having been setup in the last 5 years. High growth has resulted from significant economic interventions including demonetization, the Digital India initiative's promotion of digital payments, and the emphasis on a paperless economy. The most money was given to digital payment and lending technology in 2021, but insurtech is anticipated to grow quickly due to a rise in the use of non-life insurance for health, education, and automobiles. In 2021, the Indian government also increased foreign direct investment (FDI) in the insurtech segment from 49% to 74% [7, 8].



Figure 4. Sectoral view: story of unique opportunities.

FinTech Product Categories: LendingTech

These include digital payments, insurtech, net banking and investment tech.

Agritech—A Move Towards Digitization

The pandemic has acted as a catalyst for agritech industry to shift from traditional markets towards innovative and digital ones. On-ground advisory services, small agri-retailers, and equipment manufacturers took a hit in pandemic paving the way for digital transformation. During peak of the pandemic, agritech sector not only outperformed other sectors, but also experienced increased pace of digitization. In the last 3 years, start-ups in the agritech space observed significant growth alongside rising interest from investors. In 2021, agritech experienced ~1100% increase in funding compared to 2020.

Hyperlocal—Solution in a Click

After experiencing initial setbacks and obstacles during the start of the pandemic, the hyperlocal delivery sector saw consistent development. The online grocery market observed 70% growth in 2021–2022 while online meal delivery experienced a 19% rise in 2021–2022. The rise of the hyperlocal market is being fuelled by factors including urbanization, tech-savvy customers, and shifting consumer behaviour with a greater tilt towards convenience. Customers' use of hyperlocal platforms was further made more convenient by programmes like "no contact delivery" and "online payments."

Increasing demand from tier-II and tier-III cities and the growing acceptance of online delivery are key drivers in hyperlocal marketplace. Currently, ~23% of the internet subscribers in India are online shoppers compared to ~10% in the previous year. This indicates an increasing trust of customers on online shopping, which is eventually increasing the usage of hyperlocal ecommerce.

Hyperlocal Product Categories

These include quick commerce/grocery delivery, food delivery, home utility and logistics services.

Rising adoption of digital technologies such as blockchain, AI, machine learning and Big Data is expected to drive future growth, equipping hyperlocal players with the capability of providing superfast deliveries coupled with hyper-personalized customer experience. Although the market for online meal delivery is predicted to grow at a CAGR (compound annual growth rate) of 30% over the same time to reach US\$1,515 billion by 2026, the market for online groceries is predicted to grow at a CAGR of 29% to reach US\$1,311 billion by 2026.

Gaming Competition in the Digital Era

India has become one of the gaming marketplaces with the highest growth rates in the world, thanks to its 450 million gamers, 20% paying user conversion rate, and 50% rate for first-time paying users, which leads the world. Indian video game sales are projected to increase threefold by 2027 as the nation switches from being a net importer of video game software to an international exporter of content and intellectual property.

Emerging gaming segments and increase in paying user base will drive market growth. Real gaming segment leads by market share.

Indian gaming market grew by 22% year-on-year (YoY) to reach US\$2.2 billion in 2021. Real money gaming accounted for 54% market share by revenue stream, followed by in-app purchases at 26% and ad revenue at 15%.²⁶ This rapid growth is enabled by ~450 million gamers (2021) and a paying user conversion rate of 20%. At 50% in 2021, up from 40% in 2020, India has the fastest-growing percentage of first-time paying gamers worldwide.

Health-tech—Reshaping Indian Healthcare

The COVID-19 pandemic has highlighted the gaps in the healthcare system and also brought in opportunities for health-tech firms to address these gaps. It acted as a catalyst to accelerate acceptance

of digital healthcare in India. Low doctor to patient ratio and lack of proper health infrastructure further provide a huge opportunity for start-ups to dive into healthcare space. Health-tech start-ups dwelling in online medicine delivery, digital consultation and technology solutions became popular in the past 2 years which attracted investors' attention. Currently, India ranks fourth globally for VC investments in Health-tech as funding increased by 630% in 2021. In M&A (mergers and acquisitions) activities, sector witnessed approximately twofold growth in 2021 as compared to 2020. These transactions led to the creation of four unicorns in the health-tech space in 2021.

Health-tech Firms Saw Tremendous Increase in Consumer Adoption in E-Pharmacy and Teleconsulting Space

The digital technology played a vital role to make healthcare accessible and affordable for the masses. Healthtech start-ups gained a strong foothold as pandemic pushed acceptance of online delivery of medicines, digital and tele-health, and remote patient monitoring. More than 85% of doctors adopted teleconsultation platforms, which was less than 10% prior to the pandemic. Number of teleconsults increased by 300%, with 45% of them coming from non-metro cities indicating inclination towards digital consultation by patients. As more than 70% of e-pharmacy customers are likely to continue with the online platforms, the number of households using e-pharmacies is expected to reach 75 million households in the next 5 years, up from 3.5 million households before the pandemic.

Health-Tech Product Categories:

These include telemedicine, e-pharmacy, fitness and wellness, healthcare IT and analytics, home healthcare and personal health management.

India's Health-tech market is valued at US\$2 billion, which is less than 1% of the total healthcare industry, showcasing huge untapped market in the space. Funding has increased threefold in the past 3 years indicating growing interest of investors in the sector.

B2C E-Commerce—Competition in the Digital Era

Driven by innovative business models such as direct to consumer (D2C), Q-commerce (quick commerce) and social commerce, and a focus on providing an omni-channel experience, B2C e-commerce continued its rapid growth. While fashion and personal care witnessed frequent purchases, the growth was also led by emerging segments including healthcare, pharma, home décor and sports equipment. In 2021, the segment witnessed increased investor interest, with PE/VC funding increasing 15-fold while the M&A activities increased by 4.5-fold on a yearly basis. This led to the creation of seven new unicorns during 2021-2022. Further, over US\$300 million has been invested in Indian start-ups based on the innovative Thrasio concept.

E-commerce Market Continues its Rapid Growth Driven by Innovative use Cases, Omni-channel Presence and Growing Consumer Awareness

This growth is further supported by rising popularity of the D2C model, emergence of the Thrasio model, focus on omni-channel presence, and growing popularity of content commerce. During the 2021 festive season, online sales grew by 23% in gross merchandise value, reaching US\$9.2 billion, as compared to US\$7.4 billion in the previous year. In 2021, several Indian star-ups launched their own online platforms as search interest in D2C brands rose by 533% YoY.

By 2026, it is anticipated that e-commerce would account for 11.4% of all Indian retail sales. D2C segment is expected to grow at CAGR 25% during 2021-2025 with the fashion market expected to have 53% share within the segment. Social commerce and live commerce are expected to reach US\$16 billion and US\$4 billion gross merchandise value by 2025. Technology-enabled innovations, such as digital payments, warehousing and logistics, customer engagement, and increasing consumer awareness, are likely to support this growth.

Social Commerce—Interaction to Transaction

In India, currently, there are more than 620 million digital audience, with 0.6 million searches taking place for social commerce per month, which is also on increasing trend month-on-month.

Widening Social Media Influence and Increasing Social Commerce Shoppers Will Drive Social Commerce Market Growth in the Near Future

In India, social commerce shoppers, which account for 53% of total online customers, are predicted to expand by 45% from the existing customer base to 228 million by the end of 2022 as they experiment with new methods of online product purchasing through social media apps. Presently, tier-II and III towns make up over 80% of the gross product value and account for 55% of the social commerce consumer base.

By 2025, social commerce's current 1% to 2% market share in India's e-commerce business is expected to rise to 4% to 5% of the estimated US\$140 billion market. Consumer generated content, instant gratification and personalized content for various audiences will drive the growth for social commerce in India in coming years. The live commerce market is forecasted to reach US\$4 to 5 billion gross merchandise value by 2025.

Travel and Hospitality—Transforming Through Innovation

COVID-19 pandemic brought series of lockdowns, which adversely affected the travel and hospitality industry. Firms automated processes like seat booking, meal booking, cancellation and customer services, which helped them bring down costs. In M&A activities, the sector witnessed significant growth in 2021 as compared to 2020 but still was comparatively less than pre-pandemic levels.

Firms in the Travel and Hospitality Sector are Recovering from the Pandemic with Ease in Lockdown Curbs

Travel and hospitality space remain one of the worst hit sectors due to the COVID-19 pandemic as it impacted demand for travelling by affecting sentiments of consumers and their willingness to travel. and was valued at INR834 billion in 2021 compared to INR1,116 billion in 2020. However, the pandemic forced contactless travel engagement which is expected to accelerate online booking adoption even faster.

With the lifting of pandemic restrictions and a continuing successful vaccination push, the travel and hospitality business in India is predicted to have a significant recovery in 2022 and beyond. The Indian travel industry is anticipated to expand at a CAGR of 7.5% from 2020 to 2027 whereas the internet travel industry is anticipated to expand at a CAGR of 12.6% from 2021 to 2027. Once investment reaches pre-pandemic levels in 2021, it will be possible to see how investors' interest in the area is growing.

Logistics Tech—End-to-End Optimization

The logistics industry is anticipated to be a critical facilitator in helping India achieve its goal of becoming a \$5 trillion economy. The sector is currently highly fragmented, and at ~14%, the logistics costs in India are among the highest in the world (compared to a global average of ~8%). They are offering solutions that enable an open marketplace, logistics fulfilment and support, provide fleet management, warehousing operations and demand forecasting.

Logistics Tech Market in India Remains Highly Fragmented; Innovative Business Models such as Open Marketplace Present High Growth Opportunity

Logistics Tech E-commerce Categories: Warehousing solutions, enablement support services, transportation/fleet management, supply chain finance, B2B procurement and distribution.

From FY2020 and FY2025., the e-commerce logistics sector is anticipated to develop at revenue CAGR of 23.6%. Increased demand from tier-II and lower cities will be the main driver of this growth

because of these cities' increased internet penetration, changing shopping habits, growing demand for quick delivery services, and use of AI, Big Data analytics, and blockchain technology to enhance the customer experience. As the D2C market gains further traction, they will seek out platforms that offer end-to-end logistics and fulfilment services.

Online Classifieds and Services in Demand

Following favourable demographics and growth of online advertising market, the online classifieds and services segment witnessed rapid growth in FY2021. While start-ups developed innovative use cases such as interview-as-a-service and online parking system, vertical players within home rental, used car buying and urban lifestyle witnessed growing market traction. With both Millennials and Generation Z embracing the concept of purchasing second-hand goods, recommerce segment is expected to drive market growth in the future. In 2021, the sector witnessed ~4.5-fold growth in PE/VC funding and 39-fold growth in M&A driven by one of the largest acquisitions within the segment.

Online Classifieds and Services Market is Witnessing Innovative Use Cases and Emergence of Vertical Players

The digital classified industry has shown a high growth of 20.0% YoY to reach US\$2.5 billion in FY2021. Start-ups in the sector are developing innovative use cases such as interview-as-a-service, global positioning systems, community events, online auctions and parking systems. Vertical players in the home rental, used car buying and urban lifestyle are also witnessing growing market traction. Driven by growing popularity of interactive content, classifieds industry will leverage immersive technologies like 3D visualizations of items, augmented reality, and virtual try-on to provide high-resolution quality images of the product, helping increase customer engagement and online conversion.

Online Classifieds and Services E-commerce Categories

The include real estate, recruitment, matrimonial, automobiles, multi-segment

Digital classified industry is expected to grow by 25.0% YoY in 2022. Within this, the online recruitment classifieds segment is expected to reach US\$200 million in FY2023E driven by strong market recovery post the pandemic. Further, despite growing competition, online matrimonial classifieds are also expected to grow at 15% CAGR in revenues during FY2022–FY2026E.

Mobility Gearing up for Electric Vehicles

The pandemic hampered mobility market in India but soon firms took this as an opportunity to expand into adjacent segments and to bring innovative solutions on the table. End of travelling curbs, inclusion of electric vehicles (EVs) in fleet, increasing partnerships with OEMs (original equipment manufacturer) and growing funding support will drive the growth of the mobility market in India. The sector also witnessed ~6-fold increase in funding indicating rising interest of investor in the space, particularly in e-mobility.

New Allied Services in e-commerce and Food Delivery are Areas of Interest for Mobility Firms

This forced businesses in the mobility sector to adopt novel solutions and diversify into related markets. To make money during the pandemic, businesses ventured into B2C and C2C consumer logistics. The shared mobility GMV (gross merchandise value) in India stood at US\$11.1 billion in 2021 from US\$6.9 billion in 2020. Rikshaw sharing remain the highest contributing segment to the market, generating close to 65% of GMV in 2021. Commuters are opting for single-rider, open-air transit options generating huge potential for micro mobility start-ups in India.

Mobility Product Categories

These include app-based cab booking, micro mobility, self-drive rentals, and subscription-based ride services.

The shared mobility market in India is expected to grow at a CAGR of 25% during period 2021-2027. Micro mobility and ride-hailing will fuel the growth. The used car market is anticipated to rise

by 12% to 14% between 2025 and 2026, from 38 lakh to over 70 lakh vehicles. Rising digitization, first-time purchasers, shifting demographics and ambitions, and the simplicity of payment methods will all contribute to the growth.

Payment and Wallet—Contactless to Cashless

Increasing smartphone penetration and growing awareness regarding convenient online payment options is driving the market forward. E-commerce players are introducing their own payment solutions and launching differentiating schemes to attract the customer base, thereby making market increasingly competitive. Industry witnessed seven-fold increase in VC investment in 2021 compared to the previous year with major investments in payment services. In M&A activities, the sector witnessed more than twice the number of deals in 2021 as compared to 2020.

Pandemic Intensified the Demand for Digital Payments as Contactless Payments Emerged as the new Normal

With more than 2 billion prepaid payment instruments such as internet wallets, mobile wallets and digital payment modes. Pandemic further increased online shopping thereby boosting virtual transactions in the country. A total of 40% of Indian users prefer UPI (unified payments interface) and digital wallet while making payments online. During the pandemic, nine out of ten Indians preferred digital wallets citing it made shopping easier as the main reason. The fast acceptance of digital payments, along with an increase in e-commerce transactions, is promoting the expansion of the Indian payment gateway market.

By 2026, it is expected that India's digital payment market would have increased by a factor of three, reaching US\$1 trillion, mostly as a result of rising online sales and widespread adoption of technology. Almost 44% of payments will be processed via payment gateways and aggregators by 2026, 34% by QR (quick response) codes, and 22% by point-of-sale devices.

2021: THE YEAR OF UNICORNS AND IPOs

India is Becoming a Unicorn Hub, Led by E-commerce and Internet Start-ups

In 2021, the Indian startup ecosystem saw 46 unicorns, more than tripling the overall unicorn population to 90. The fintech, edtech, and B2C and B2B e-commerce divisions, as well as the consumer internet sector, were important contributors to the unicorn space. These tendencies also don't appear to be passing fads. In the first two months of 2022, the nation has already produced nine unicorns, of which four are online retailers. One out of 13 unicorns globally have been born in India.

1. 30+ E-commerce and internet unicorns in India out of total 46 unicorns in 2021.
2. 60 E-commerce and internet start-ups in the soonicorn club as of January 2022, poised to become unicorns by the end of 2022.
3. 48% decrease in average time to turn unicorn for start-ups founded after 2012 compared to before 2012.
4. 2021 saw the fastest Indian unicorn ever, a B2C e-commerce firm.

Future Outlook

The future of Indian e-commerce and internet will be driven by innovation and expansion. The development of a new generation of entrepreneurs creating platforms and goods of international calibre is accelerating the sector's expansion further. The Government of India has been actively supporting these efforts with programmes like Startup India, Digital India, and Aatmanirbhar Bharat, as well as an emphasis on creating a supportive regulatory environment.

India is positioned to rank among the world's top e-commerce and consumer internet markets in the next years, both as a top consumer of internet-based goods and services and as a top generator of businesses that can meet these demands and compete on a global scale (Figure 5).



Figure 5. Future growth engines for e-commerce and consumer internet in India.

Factors that will fuel growth of digitalization

1. Significant digital literacy gap
2. Connectivity to remote areas
3. Compatibility with central state databases
4. Cyber crime
5. Interdepartmental coordination for Digital India
6. Finance
7. Net neutrality
8. Changing the mindset
9. Information sharing

CONCLUSION

In the areas of agriculture, healthcare, retail, logistics, and other industries, new digital ecosystems are already apparent and altering consumer-producer interactions. Possibilities include data-driven lending, insurance pay outs for the agricultural industry, and digital systems that plot the most effective routes and track the movement of cargo on Indian highways. Patients in the healthcare industry might use digital voice or HD video teleconsultations, and brick and mortar retailers in the retail industry would benefit from becoming a member of e-commerce platforms. If India wants to realize its digital potential, all parties must act quickly. In order to implement digital initiatives, executives will need to engage with colleges, outsource work to talent, and invest in establishing capabilities in front of the digital forces that will disrupt their industries. Governments will need to make investments in digital infrastructure and open data that businesses can use, all while putting in place robust privacy and security measures.

India currently has one of the best innovation environments in the world, as seen by the rise in the number of Indian start-ups. About 70,000 firms in India have more than 100 unicorns, and that number is only increasing. India made numerous measures to increase the ease of doing business even during the pandemic. To ease the business's compliance burden, thousands of rules have been altered.

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