Staying Competitive in the Post-pandemic Decade

Transformative technologies to ignite innovation and accelerate your advantage in the Retail Sector.

Introduction

The World Economic Forum expects India to regain its position as the fifth-largest economy by 2025 and emerge as the third-largest economy by 2030 (Source: World Economic League Table 2021).

To achieve this goal, we will have to do more with fewer resources, scale up to international productive standards, and create unique differentiations that enable us to compete on global platforms. Technology - in the form of digital working and more - will play a crucial supporting role in this saga of achievement.

Even before the pandemic, organisations that truly embraced digital working experienced an increase in employee productivity even as the overall cost of operations reduced. The new work models also allowed them to access untapped talent pools and reduce staffing costs by hiring in Tier 2 and Tier 3 cities.

Moving forward, advancements in multiple emerging technologies will converge to create unprecedented value. It's up to us to anticipate and make the right strategic technology choices. So, what technologies should you be tracking and investing in?

Here's our definite round-up of the foundational technologies to keep on your radar:

By Anuj Vaid
Executive Director, CMS IT SERVICES

Foundational Technologies for 2022

Zero Trust architecture

India is the third-most cyber-attacked country in the world. Distributed workloads, remote working and connected devices make networks, services, apps and data more vulnerable than ever before. Fortification of endpoints and a zero trust posture is imperative.

Cloud maturity

Intelligent workload management and operational stability through custom cloud configurations is the way forward. According to Gartner, "The rapid pace of innovation in cloud infrastructure and platform services (CIPS) makes cloud the de facto platform for new digital services and existing traditional workloads alike, which is why 40% of all enterprise workloads will be deployed in CIPS by 2023, up from only 20% in 2020." (Source: Gartner Predicts the Future of Cloud and Edge Infrastructure, Katie Costello, February 8, 2021).

Hyperautomation

Gartner expects that by 2024, organizations will lower operational costs by 30% by combining hyperautomation technologies with redesigned operational processes. (Source: Gartner - Forecast Analysis - Hyperautomation Enablement Software, Worldwide, Cathy Tornbohm, 22 March 2021). This will reduce/replace manual resource allocation, system tuning and configurations, data management and mining, service management and systems provisioning.
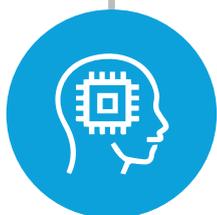
Conversational AI

Just like cloud brought scale and speed within reach of small companies with small budgets, chatbots empower small teams with small budgets to deliver the 24/7 customer-first experience typically associated with enterprises.
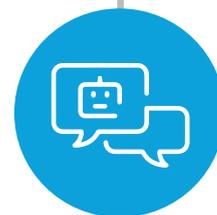
IoT everywhere

By 2022, there will be 29 million connected devices on the internet and 50% will be IoT devices (Source: Telecommunications Industry Association). Smart homes, wearables, smart cities, smart grid and industrial internet will be the most popular applications.

Intelligence at the edge

Gartner predicts that by 2025, 75% of business-generated data will be generated and processed at the edge. (Source: Gartner - Technology Insight - Edge Computing in Support of the Internet of Things, Santhosh Rao, 13 July 2017). AI at the edge allows mission-critical and time-sensitive decisions to be made faster, more reliably and with greater security.

Data

By 2024, we will have generated 149 zettabytes of data globally (Source: Statista). The velocity and quality of data enables businesses to think less sequentially and more disruptively.
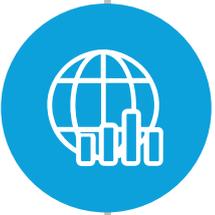
5G connectivity

5G ushers in an era of unprecedented connectivity - superfast, ultra-reliable, low latency networks that seamlessly support up to 1 million devices per square kilometre. This 1000x increase in compute capacity (compared to 4G) is the foundation on which IoT, big data, AR/VR, etc deliver immersive experiences.

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> The next frontier in IT services will evolve beyond the discrete consumption of service models and technologies, and instead will be driven by the nexus of cloud, edge, 5G, AI, IoT, and data and analytics.
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> *Sid Nag, VP Analyst, Gartner*

Trends in Retail Sector

The best of both worlds

With half a billion Indians coming online, the chances of a customer's first touchpoint with your brand being digital have increased substantially.

> **Online penetration of retail in India is expected to reach 10.7% by 2024 versus 4.7% in 2019**

Source: Ernst and Young-Indian Private Equity and Venture Capital Association

In the last decade, shoppers have grown to expect a hyper-personalised retail experience. Digital penetration has gone beyond the metros and seeped into India's urban and semi-urban townships. Retail 4.0 is well on track to bringing a convergence of the online and offline experiences. Shoppers need no longer choose between one or the other, as a digitally enabled ecosystem creates a unified experience across various channels.

There is also a renewed focus on cost optimization in retail operations. Retailers are evaluating multiple avenues including direct-to-consumer (D2C) models and hyperlocal delivery for essentials. Backing it all are data-led insights and innovative technologies like cloud, AI/ML, big data, and immersive media.

Industry evolution

The new millennium breathed new life into India's retail sector. An Increase in aggregator companies, better FDI policies, fintech investments and the self-reliant manufacturing of products are some of the ways the industry's growth is being augmented.

- Omnichannel assistance that combines the traits of both online and offline buying experiences, will become mainstream and amplify online-led exports

- Beacon technology and interest tracking can lead to customers receiving personalized suggestions when in proximity to a brand's physical location

- Self Service Technologies (SSTs) liked Smart Vending Machines, Order Kiosks etc are set to create seamless experiences for customers at physical stores by making service transactions quicker, more convenient, and accurate

- Fintech and digital payments, in general, have taken the retail industry by storm and will continue to make buying and selling a hassle-free affair in a post-pandemic world with their attractive 'low-contact' systems

- Digitization will take over the entirety of back-end operations and revolutionize inventory management, enterprise scheduling and employee management

- Unmanned Aerial Vehicles (UAV) like Drones will speed up the delivery and distribution of retail goods

- Retail chains will implement Gamification via apps, social media, QR codes etc in their physical and online stores to heighten shopping experience, track real-time purchase behaviour etc

- Predictive Analytics tools will become more readily available to all D2C outlets regardless of size and enhance personalization, sales forecasts etc.

- Value-driven consumption that is more environmentally conscious and ethical to all stakeholders, will take over the buying pattern

Challenges

- An essential part of the digital retail experience involves collecting customer data – emails, phone numbers, card information etc. This raises data privacy, transparency, and cybersecurity concerns regarding online transactions

- Smaller retailers have kickstarted their digital journey thanks to the pandemic, but the expertise and budget required to move forward is much higher than what is currently afforded to them

- The 'Human Touch' is still very much desired by a majority of the older customer demographic and a shift to an impersonal, completely digital-led experience may not satisfy customers and retain loyalty

Brick and mortar isn't going away any time soon. At least for the next decade, retailers will continue to focus on and leverage a judicious blend of both - the physical and digital infrastructure. The two modes will complement - not supplement - each other and bring together the best of the virtual and the physical worlds to create a delightful customer experience.

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> The ongoing COVID-19 pandemic is driving retailers worldwide to fundamentally reassess how they do business. Due in part to its many challenges and threats, the past year has moved retail digital transformation forward at previously unknown speeds. The crisis has also made clear the importance of technology to the industry.
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> **99**
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> *Kelsie Marian,*
> *Sr Director Analyst, Gartner*

Enabling Technologies

The debate has shifted from offline vs. online to direct to consumer (D2C) models and technology for efficient distribution and last-mile delivery.

- Point-of-Sale Integration via SaaS Cloud-based ERP Solutions can make or break the synchronisation of both the digital and physical domain's inventory, payments etc

- AI/ML-driven big data and Vertical SaaS insights have become instrumental in elevating customer experience, forecasting demand, and hiking overall sales

- Virtual Trial Rooms, Smart Mirrors, Interactive Interfaces, 3D feature-analysis etc leveraging AR/VR technologies will enhance user-experience

- IoT networks will reduce human interactions in 'Just Walk Out Stores' that will auto-collect payments.

- A combination of Conversational AI, NLP, Augmented and Virtual Realities can create virtual or robotic 'salespeople' who can shorten the buying cycle by providing targeted solutions

- Hyper automation will drive up supply chain efficiencies, improve inventory management and product delivery, distribution, and tracking.

- Customer data tracking and payment portals will become more secure with cross-platform Customer Data Integration (CDI) and encryption.

125
Billion $ by 2030

There will be a spike in Online-led exports from 2.1 billion dollars in FY20 to **125 billion dollars by 2030** (Source: NASSCOM- Technopark Retail 4.0 Report)

1.5
Trillion $ in 2030
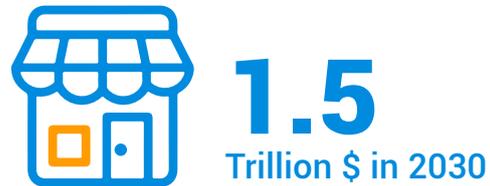
The retail market size is expected to reach **1.5 trillion by 2030** compared to the estimated market size of $793 Billion in 2020 (Source: Invest India)

100
Billion $ by 2025

The D2C segment could have a **$100 billion addressable market by 2025** (Source: Avendus Capital - 'Decade of D2C – Disrupting the next decade of shopping')

8%
by 2025

Indian e-commerce is projected to increase from 4% of the total food and grocery, apparel, and consumer electronics retail trade in 2020 to **8% by 2025** (Source: Indian Brand Equity Foundation)

22.3
Billion in FY2021

Payment platforms such as UPI, IMPS, and NACH saw a near **doubling of transaction volume from 12.5 billion to 22.3 billion** between FY2020 and 2021(Source: RBI)

260%
e-commerce sales

Digital payments for retail, e-commerce sales **grew 260% during Lockdown 2.0 compared to Lockdown 1.0** (Source: PayU Insights Report)

63%
of Retail CIOs

Gartner CIO Survey shows that 63% of retailers expect to **spend more on business intelligence/data analytics**, and **35%** on **artificial intelligence** (Source: Gartner)

Into the resilient future: a path forward

Now that the pandemic has changed how we do business forever, it's time to find pathways to a responsive and resilient future. It's time to enable agility with scalable digital systems purpose-built for distributed workforces. It's time to embrace hybrid-computing and multi-cloud models as pivotal components of business infrastructure.

As you lay the foundation of a digitally transformed future, you will want to evaluate the technology and vendors you choose. Here are a few things to consider.

What to look for in technology solutions

- You will want a technology stack - hardware, software and business applications - that **fits your business** just right, and keeps your customers happy.

- Your technology will need to integrate and work seamlessly with your existing infrastructure, so it augments and **amplifies your previous IT investments.**

- Solutions that are easily and quickly deployed substantially **accelerate your time to market** and drive quick returns.

- Cloud-native solutions offer you **unlimited elasticity** at an unbeatable price, allowing you to start small, learn what works for your business and scale fast.

- As threat actors become more sophisticated, **in-built security** may be the single-most critical consideration for your business's reputation and safety.

- Bespoke solutions that **automate and auto-learn** in your unique operating environment will drive higher ROI and keep your business future-fit.

What to look for in a digital transformation partner

- **Culture fit** is critical. A win-win approach and a strong desire to create value are at the heart of every good vendor relationship.

- Pick a partner who brings a **complete team** to the table, not just techies. You will want to involve business enablers, domain consultants, and support teams to ensure you've built a holistic solution for your users

- A partner with the right **intellectual property, frameworks and best practices** will make your life immeasurably easier by delivering risk-free and error-free repeatable deployment models.

- A partner with **global know-how and local insights** is a strategic advantage for your teams and your customers.

The bottom line - be it technology or transformation partners, **long-term sustainability** is the key. You want technology solutions that scale and adapt to the future and relationships that last the distance.

We hope you find these insights and commentary as illuminating as we do, and we welcome the chance to discuss what they mean for your business.

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GICs

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