Digital transformation during a pandemic situation

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The need for digital transformation

The outbreak of COVID-19 has caused a lot of disruptions to society with millions of deaths, high unemployment levels, and exhausted businesses. The entire world is now trying to recover from the effects of the pandemic. Today, the way of life is different than what it has been, with limited travel, quarantines, closed offices, as well as supply chain and logistics disorders.

Most of the industries have been hit hard by the pandemic and many have been forced to shift their technological priorities to survive and sustain in the situation. Along with the global economy, the organizations are also in the recovery mode. But not all the organizations are in the same recovery phase. There is an essential need to respond rapidly and adopt digital technologies to protect health and welfare of both internal and external stakeholders. Companies that embraced digital transformation wholeheartedly have performed better during the pandemic and expect a faster rebound, while the laggards are now making necessary investments and racing to catch up.

Are the organizations ready for the new normal? Even before the pandemic, some of the technological progress with digitalization was prominent. But the pandemic has accelerated the implementation and use of technology. The attitude of the organizations, to wait for the world to go back where it was, does not work. It is intellectual to use the opportunity, digitally transform the company, and emerge stronger than before. The future will be age of digital revolution, which is more smart, innovative, efficient, effective, productive, and safe. In the coming years, organizations must make mindful decisions in implementing digitalization via the latest technologies to avoid being affected by pandemics or other disruptions, and to stand out among the competitors.
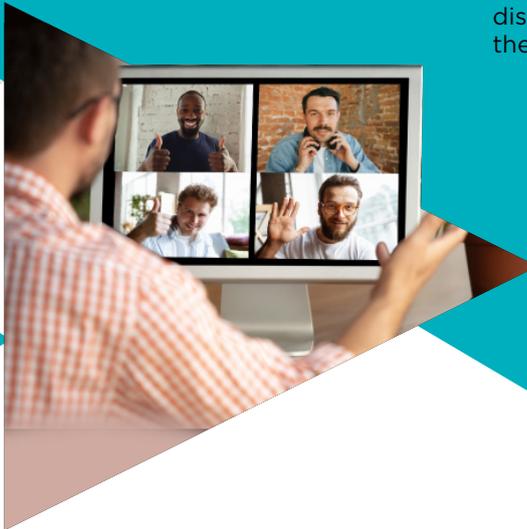
Consumer expectations

What do consumers expect from global businesses? More transparency, automatic access to information, personalized content, and an overall better experience. The primary benefit of digitalization is the ability to store information online. This makes it useful for the buyers to access information on their past purchases and transactions. Customers could also track, return, or cancel their orders without any assistance from the seller. The more significant content being offered to each of the customers, the more likely they make use of it. For example, certain e-commerce sites show recommended products based on the browsing history.

Chatbots and automated voice calls provide digital solutions for basic customer issues quickly and more politely. Moreover, automated email responses reduce human time spent on the routine process. Now the business has access to more data, which will enable a study about consumer preferences. Knowing the customer well can help businesses improve on their operating and marketing strategies. There are plenty of ways to integrate new technologies in ways to create comfortable customer experiences.
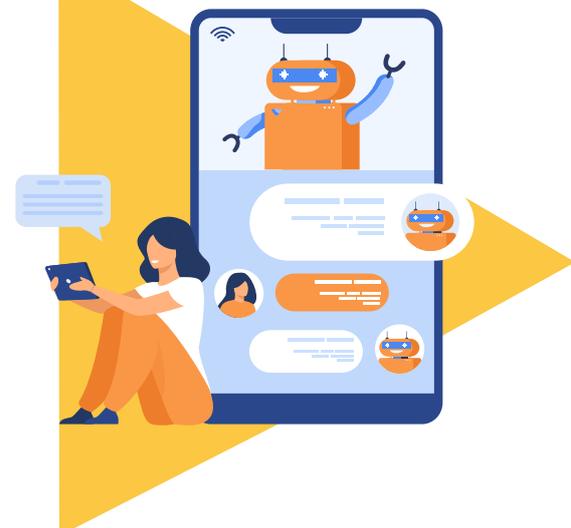
Organizational expectations
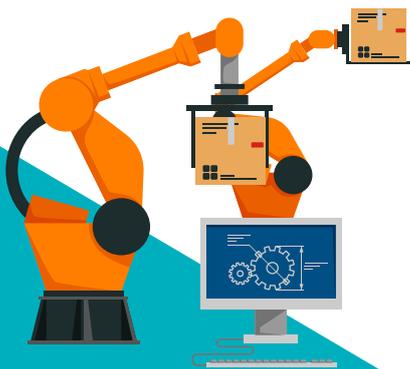
The improvements in usage of technology has caused changes in society, routines, people's habits, behaviors, etc. Therefore, if the society changes, the behavior of the market, and consequently, the business deliverables should also go hand in hand. Some organizations use digital technology to strengthen the internal process and others to handle relationships and transactions with the external stakeholders. The consumer behaviour toward the digital revolution is significant. For some industries, technology upgradation is a necessity just to be sustainable in the marketplace.

What do the organizations have to do now? They need to understand the nuances of digital transformation. Digital transformation is to make the best use of suitable technology and data, but is often misunderstood with the use of more IT. It should lead to innovation, value addition, and cost reduction. A CIO of a leading carmaker in India, who is responsible for technology deployment, recently said that the company has achieved 25 percent cost reduction by making investment in robotic process automation (RPA).

The business model and strategy:

Digital transformation is to be directed by the broader business strategy. The goal of the transformation could be speed in the delivery, creating customer satisfaction, quick input converted to output, use of data to improve the supply chain, etc. Once the goal is established, the organization must decide on the suitable tools to be implemented. The best of tools could vary for different organizations based on their goals and operations.

The utilization of insider and third-party knowledge:

The organizations should rely on their employees who have in-depth knowledge about the day-to-day operations. They would have a better clarity on what would work and what doesn't. The knowledge of third-party consultants too could be leveraged for efficient implementation. Hence employees, along with third-party consultants, should be ready to work toward the goals of the organization.

The way of organizational operations:

The form of the organization should be more adaptable for the digital environment. The traditional hierarchies should undergo suitable changes to handle quick decision making and speedy process. Organization culture and mindset of the people is to be considered before deciding the digital tools to be implemented.

Employee expectations

Employees have varied experiences and expectations depending on when, where, and how they work. Just like consumers, employees too expect the employers to care for their safety. Employees who notice that their employer handling the pandemic in an inferior way would hesitate to continue with the employer. Many leaders have learned on transparent communication and enabled remote working models. These help employees to be part of the business and contribute more.

According to an Institute for Public Relations survey, employee expectations are changing due to COVID-19, and that most employees wish to wait until COVID-19 isn't a threat to get back to office.2 Many employees think they should be able to work from home until they are comfortable to return. The infrastructure to enable a secure remote workforce could largely affect business operations. Working remotely requires cloud storage systems, messengers, video calls, and broadband connection.

Let us investigate the components of the digital workplace:

Components of a Digital Workplace

Accessibility: Access to internal/external tools like PCs, laptops, etc., to facilitate access to vital data.

Security: Data protection, authentication methods, antivirus and firewall protection, risk assessment, and backup plans

Business applications: Friendly applications for email, chat, video conference, and online applications like ERP, CRM, and HR systems for seamless workflow

Data integration and connectivity: Collaboration among employees, exchanging thoughts via idea platforms, forums, communities etc.

Backend support: Continuous system and application support for day-to-day operations

Many organizations have adopted virtual training and onboarding process as part of a digital workplace. What can an organization do now? It can continue to invest in stable, supportive, and secure IT tools and work with trusted partners to implement and maintain the right infrastructure.

Role of technology in digital transformation

Any business expects generating, analyzing, and communicating data effortlessly at the required time and to the concerned people through various technologies. The technologies that a digital transformation may leverage includes:

Machine Learning · Location detection technologies · Mobile apps · Authentication/security · Contributing technologies · Cloud computing · Wearable/medical devices · Internet of things · Big data analysis · VR/RPA · Customer interaction/profiling platforms · OTT/Gaming platforms

Contributing Technologies to Digital Transformation

Digital transformation in various sectors and the opportunities therein

Media and entertainment

Outdoor events · Films · Radio · Telivision · OTT · Gaming
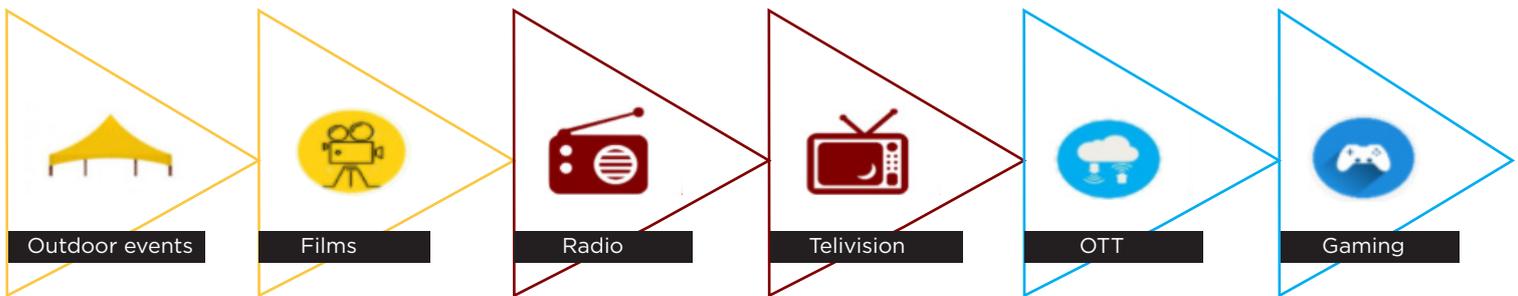
Digital Transformation Impact Areas in Media and Entertainment

The current pandemic environment has significantly impacted certain segments of the media and entertainment industry. All the outdoor entertainment modes such as theme parks, concerts, award shows, museums, exhibitions, and other events are witnessing a dramatic fall with social distancing norms. The production of movies has been put on hold. According to the Canadian Media Producers Association, Canada's film and TV production sector would face a $2.5 billion hit due to COVID-19.3

Overall, television viewers have increased during the lockdown, with numerous viewers following news channels for updates. However, there was no fresh entertainment content which worried the producers and broadcasters. In case of radio, as the radio jockeys operated from home, it made live deliverables possible. But there was a fall in the ad spend due to cash flow pressure in the market. The main source of revenue for the industry was badly affected. This would depend on the recovery of various other industries such as FMCG, manufacturing, and real estate.

Digital platforms in OTT media and gaming have had an increase in viewership during the pandemic. The lockdown has made new habits, especially the huge consumption of data in OTT and other digital platforms. Platforms like YouTube, Amazon Prime Video, and Netflix are in very high demand now. It is evident from the increasing trends in the digital platform usage during the lockdown.

Top Streaming Apps by Total Hours (Across all Streaming Platforms)

INDEXED AGAINST THE FEBRUARY WEEKLY AVERAGE FOR EACH STREAMING APP

NETFLIX   YOUTUBE   HULU   AMAZON VIDEO   DISNEY+
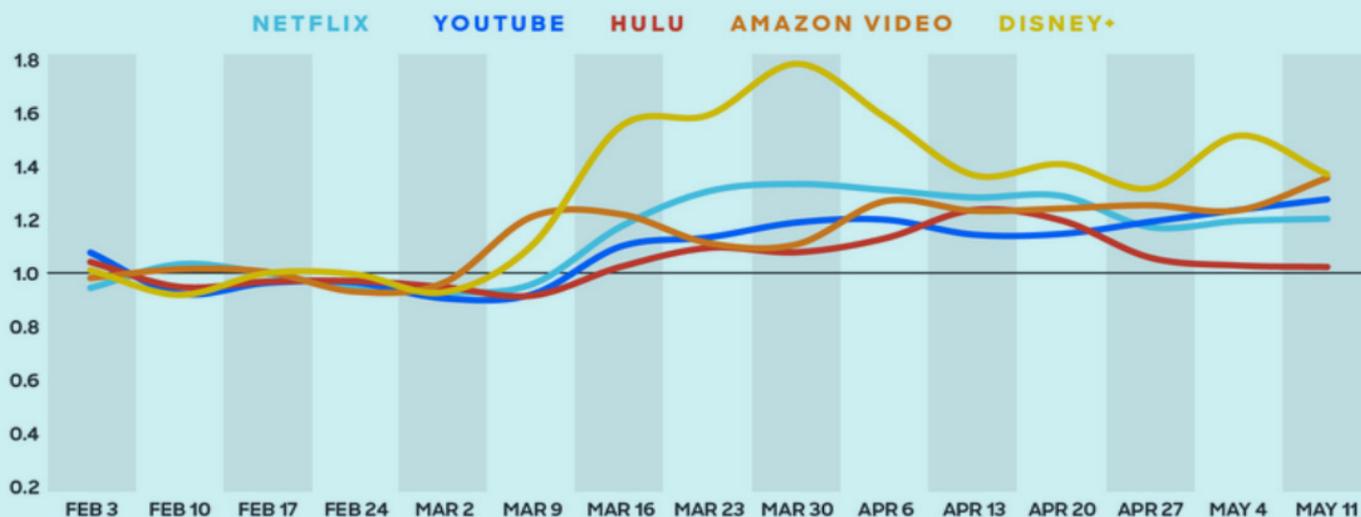
Top Streaming Apps by Total Hours
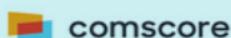
comscore

Source: Comscore Total Home Panel Custom Reporting, 2020

What can entertainment companies do now? The future is digital, hence, establishing a digital presence is vital. The industry needs to learn new consumer preferences and deliver accordingly. It needs to invest in the areas of OTT, gaming, augmented reality, and virtual reality technologies, and also enhance library content, etc.

Financial services

Banking and financial services is the most customer-centric industry which is functioning with a complex structure, a huge number of customers, highly personalized service, and a high level of compliance with robust security. In recent times, customer expectations from the banking and financial companies have drastically increased in the form of personalized services, innovative products, and quick responses. Moreover, the regulatory authorities expect high levels of compliance. With all these factors, digital transformation is no longer a choice for these companies.

The digital transformation journey should start with a focus on the employee needs, the processes, and the integrating tools used internally and externally by the customers. Integrating internal and external platforms is vital in this industry. The various banking platforms include email, web, mobile banking applications, ATMs, branches, call centers, messenger chatbots, self-service kiosks, and social media interactions.

The factors crucial for successful digital transformation in the banking and financial services industry is as follows:

Customer experience

Creating valuable customer experience is an important goal for any business. It is important to understand the needs and behaviors of the customers. This can be achieved by regularly monitoring customer care calls, customers' ratings of the applications, and getting feedback from the customers on the platform experiences. Today, the customers expect highly personalized products and seamless experiences across every platform they use.

Digital tools and platforms

It is important for the organizations to invest in digital tools and platforms that empower collaboration, which is a very strong base for any financial services organization. All the platforms and tools used by the customers and employees is to be integrated in real time for appropriately recording the transactions. Making the information readily available, manageable, and searchable by both employees and customers is vital. This would resolve customers' queries without having to be visited to the organization. Similarly, from the employee's perspective, repetitive work could be automated, so that the employees can focus on high-priority deliverables.

An upgraded workforce

Employee experience is as important as the customer experience for any organization. Organizations should provide the right resources and skill-development opportunities for employees in the digital future. It is natural that many would prefer to work for an organization that is a digital frontrunner. Employees would remain loyal if they believe that their organization provide them with opportunities to develop skills in a digital atmosphere. It is important to help employees familiarize with the new technologies, processes, tools, and the overall IT infrastructure in the organization. Skill enhancement can be done by organizing training programs, cross-functional team meetings etc.
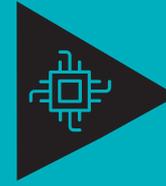
Technology-enabled processes

Technology-based process transformations would enable efficiency, speed, and more accurate results:

1. Robotic automation process- The finance and valuation process could be automated. E.g. Accounts payable, accounts receivable, big data consolidation, filing various templates, etc. could be automated.

2. Machine learning- ML can increase fraud detection and defend against cyber-attacks.

3. Cognitive agents: These agents automate IT helpdesks in organizations.

What do financial services companies have to do? They need to embrace the change. Digital transformation in banking and financial services companies is not a very easy task and there are no shortcuts. The banks could effectively utilize cloud to store data and application tools. An Agile approach would be fruitful for the financial services sector to digitally enhance their capabilities. Leveraging DevOps will enable quick delivery and enhanced customer experiences.

With digital transformation, the companies will be able to achieve better efficiency, engage employees in a better way, become more competitive, and more importantly, serve the customers to their satisfaction.

Healthcare services

Digital transformation needs to be much more vibrant in the healthcare industry than in any other. This pandemic has demonstrated weaknesses in the healthcare systems of many countries. The healthcare systems were surprised with shortage of equipment, staff, and appropriate data for records, when there was a sudden surge in the admission of COVID-19 patients.

Technology adoption is gaining importance in healthcare services. Most of the issues could be resolved with a digital-first approach. Also, digital technology would help in providing appropriate healthcare in this time of pandemics and social distancing.

Mobile healthcare

Many private players have developed mobile apps for patients' use. With mobile applications fixing appointments, contacting medical centers, accessing reports and history, digital healthcare has become easy. There is better connectivity between the doctors and the patients due to the technology, especially during the pandemic.

Medical/wearable devices

The wearable market has significantly developed in recent years. With these devices, people can collect and monitor their own health data. This is helpful for the patients focusing on prevention and maintenance, and who needs information on their health more frequently. Some of the wearable devices include exercise trackers, sweat meters, oximeters, etc.

Moreover, healthcare organizations nowadays use various devices and platforms for tracking and monitoring the patient's health condition. In the times of increasing patient flow, such systems play a significant role in monitoring the health condition of patients with minimum doctors and nurses on-site. Remote monitoring of patients has been highly important during the pandemic.

Virtual reality

There is increase in the use of VR, and in the healthcare industry, is widely used for training and support, treating patients, and creating awareness. VR could capture the entire view of the human body. It could capture a 360-degree view of any organ which is very useful in training medical students. It also helps in treatment by creating simulations. Certain hospitals use VR headsets during operations, through which patients could view calming scenarios. Through this, the patient feels less pain and more relaxed.

In collaboration with therapists, VR physical therapy has been designed to tailor each workout to patients' healing needs. This makes the therapy more enjoyable and effective. Doctors and patients must be more open in adopting healthcare technologies and attitudes need to be changed.

Importance of big data analytics in healthcare

The use of big data and analytics in the healthcare industry, professionals can now track the data of different patients and other users. By knowing associations and understanding patterns and trends within the data, big data analytics has the potential to better health care and reduce costs. Big data analytics applications in healthcare take advantage of the data for making improved and informed decisions.

Big data could help reduce costs in many ways. By using predictive admission rates, healthcare centers could allocate staff and resources. Big data could pool data from various patients and will flag up prescription mistakes, if any, thereby reducing human error.

The next steps for healthcare industry would be to upgrade and be ready for facing any kind of uncertain and unpredictable situation. To take major steps in implementing new technologies and work with experienced partners and team in appropriately implementing ideas.

As a technology leader in healthcare cloud services, HCL Technologies is always at the cutting edge of the quest to continuously improve on best practices in healthcare IT cloud services. Our enterprise medical services have helped our customer to meet their Triple Aim goals while maximizing their return on investment (RoI). HCL Technologies offers Clinical Platform as a Service, Transition of Care (IoT solution for healthcare), Next-Generation Research Platform, ReServ (IoT solution on legacy device management), Patient Care Management (IoT solution on remote patient monitoring), Connected Field Service for Healthcare, and Customer Care for Health Care.

Manufacturing, retail, and supply chain

The COVID-19 pandemic has imposed a host of challenges for manufacturers and retailers, especially those who depend on the physical movement of goods and job workers whose jobs cannot be carried remotely. The slowed economic activity, too, has reduced demand for industrial products. Safeguarding consumers and workers have become a priority at this situation. This is a very critical time to explore the possibility of deploying technologies like robotic process automation, industrial Internet of things, data analytics, automatic movement of materials etc. in the retail and manufacturing sectors.

Digital transformation is a mindful movement to the point to deliver incremental customer experience, innovation, and efficiency. They help in gathering data and analyze that can help in understanding the customer expectation, demand, and market sentiment. Manufacturers and retailers have to rethink every aspect of the business from sourcing, logistics, employee management, and customer management. COVID-19 has increased online shopping usage, globally. In India, it has led to a rise in the number of FTUs or first-time-ecommerce-users in India, who had been so far inhibited to shop online.

Suppliers → **Manufacturing** → **Warehousing & Logistics** → **Distribution** → **Consumer**

Various Sectors for Digital Transformation

HCL Technologies offers the following tool and digital solutions:

1

Vendor Audit and Compliance: This tool empowers with end-to end visibility of vendor's compliance and exceptions.

2

BlinkE-On Demand E-commerce: Enhance your digital business in a cost-effective and Agile manner using BlinkE architecture.

3

Mystore Dashboard: The real-time IT and business monitoring solution which helps in obtaining actionable insights.

4

Mappin: Mappin is a browser-based tool that helps smoother onboarding of trading partners.

5

Food Safety and Traceability: Track-and-trace solutions help in ensuring compliance with food safety regulations with complete visibility of the supply chain.

6

Retail Enterprise Collaboration: Enhance the quality of communication, speed of collaboration, and employee engagement.

7

Retail Connect: Mobility solutions that incorporate latest technological trends such as NFC, coupons/ payments, geo-fencing alerts, etc.

8

Robotic automation process and artificial intelligence uses:

1. Analyzing the buying patterns of the consumers and sending them relevant and promotional offers.

2. Digitally-empowered stores displaying videos, sports, and league statistics, product features, review and comparisons etc.

3. Technologies enabling 360-degree view of the customer while trying on specs, clothes, and other articles of clothing.

4. After-sales service happening through mobile apps, virtual assistants, chatbots, etc.

9

Portfolio Optimization and Ocean: Analyze competencies and gaining insights across the IT landscape and the business value chain. It can also analyze existing business processes and identify the areas of improvement.

10

Supply chain management: Management of supply chain processes has become more critical during the pandemic. Better digital solutions are available for the organizations to make greater improvements in their supply chain functions. The key consideration here would be sufficient integration of operations, organization structure, and talent supporting digital advancement.

Through digitalization, cross-functional data could be appropriately integrated (vendor, inventory, shipment, and schedules) from internal and external sources, so that warehouse management, advance planning, and forecasting demand and performance becomes easy.

Digital transformation in supply chain management is about how data analytics, artificial intelligence, robotics, the Internet of things, and other technologies collect and process information automatically and support decision making., thereby achieving excellence in managing inventory levels, costs, and enables quick delivery to the customers.

The organization must set out a vision for its supply chain in line with business and technical capabilities.

A digital supply chain enables an organization to strengthen its business model and collaborate more effectively, enabling to react faster and to better adapt to a fast-changing market.

Traditional supply chain

Digital supply chain
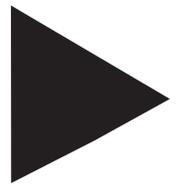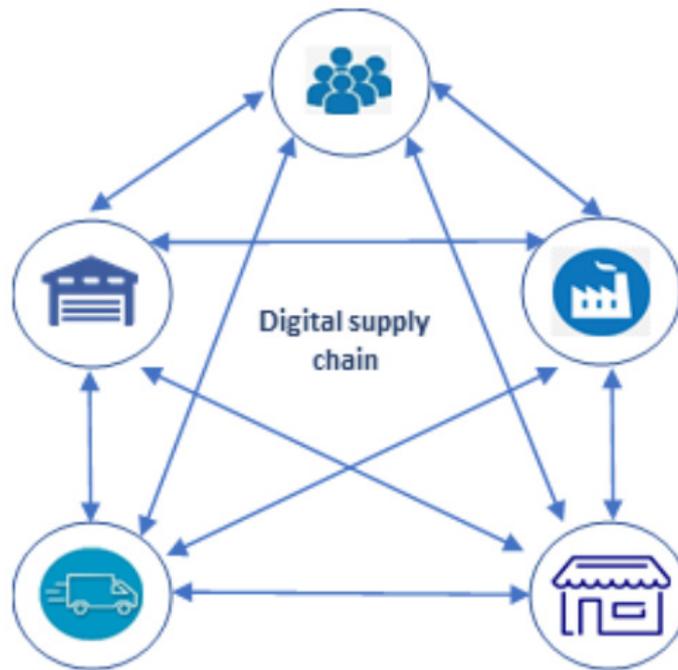
The benefits of a digital supply chain over a traditional supply chain is as below:

Aspect	Benefits of digital supply chain over traditional supply chain
Delivery cycle	Anywhere and anytime delivery with more frequent delivery slots
Packing requirement	Each item is carefully and safely packed to be delivered to the end customer
Delivery process	Though the location of the end customers is widespread, the delivery is planned and executed efficiently
Delivery failure	Minimum failure in delivery since the deliveries are scheduled, tracked and expected at the defined time
Customer service	Customers consider the lead time and delivery time as important as the quality of goods; on-time delivery at customers preferred window and safe packing/handling of goods are expected

The rapid advancement of mobile devices is transforming the retail world of business. Aiming to conduct operations seamlessly, retailers are making the shift toward enterprise mobility through next-generation smart devices. Consequently, they are adopting mobile apps for an enhanced customer experience.9

Some of the features of the technology that enable smooth functioning of the supply chain is as below:

1. In-store item inquiry and sale including QR code scanning for quick checkout, and greater cross-channel inventory visibility

2. Configurable KPI dashboards that facilitates monitoring of store performance in real time

3. Mobile planograms using augmented reality-enabled virtual store shelves with workflows planning, assigning, executing, and auditing planogram resets

4. Customer-centric marketing involving mobile promotions, access to coupons, and exchange of feedback

5. In-store system alerts for stock levels and customer arrival

6. Dashboards enabling corporate users to compare stores and review performances

7. Dashboards for vendors to monitor and compare performance across timelines and with other vendors

8. Mobile workforce management with real-time view allowing allocation, approval, and monitoring of store personnel tasks

What does the organization have to do if it has to digitally transform the supply chain function? It needs to develop a roadmap by identifying the areas of operational improvement and root cause analysis in logistics issues. Once a list of possible changes is finalized, they have to be prioritized for implementation. It should be an organization-wide transformation for operations and technology. Such planned transformations could provide full value of the digital technology.

The Future with Digital Transformation

COVID-19 has imposed a lot of challenges. Not all the stores will remain closed and not all the employees will continue to work from home. The world will now move toward a new normal with physical and digital environment. Now the organizations will have access to resource and talent at global level. The world will look different with digital transformation strategies leading the path. The future will bring many opportunities to leverage on the data analytics, robotic process automation, AI, and other evolving

technologies. This is where the organizations should start thinking big and start adopting the new way to usher in a digital revolution.

HCL

HCL Technologies (HCL) empowers global enterprises with technology for the next decade today. HCL's Mode 1-2-3 strategy, through its deep-domain industry expertise, customer-centricity and entrepreneurial culture of ideapreneurship™ enables businesses to transform into next-gen enterprises.

HCL offers its services and products through three lines of business - IT and Business Services (ITBS), Engineering and R&D Services (ERS), and Products & Platforms (P&P). ITBS enables global enterprises to transform their businesses through offerings in areas of Applications, Infrastructure, Digital Process Operations, and next generation digital transformation solutions. ERS offers engineering services and solutions in all aspects of product development and platform engineering while under P&P. HCL provides modernized software products to global clients for their technology and industry specific requirements. Through its cutting-edge co-innovation labs, global delivery capabilities, and broad global network, HCL delivers holistic services in various industry verticals, categorized under Financial Services, Manufacturing, Technology & Services, Telecom & Media, Retail & CPG, Life Sciences, and Healthcare and Public Services.

As a leading global technology company, HCL takes pride in its diversity, social responsibility, sustainability, and education initiatives. As of 12 months ending on December 31, 2021, HCL has a consolidated revenue of US $ 11.18 billion and its 197,777 ideapreneurs operate out of 52 countries. For more information, visit www.hcltech.com

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