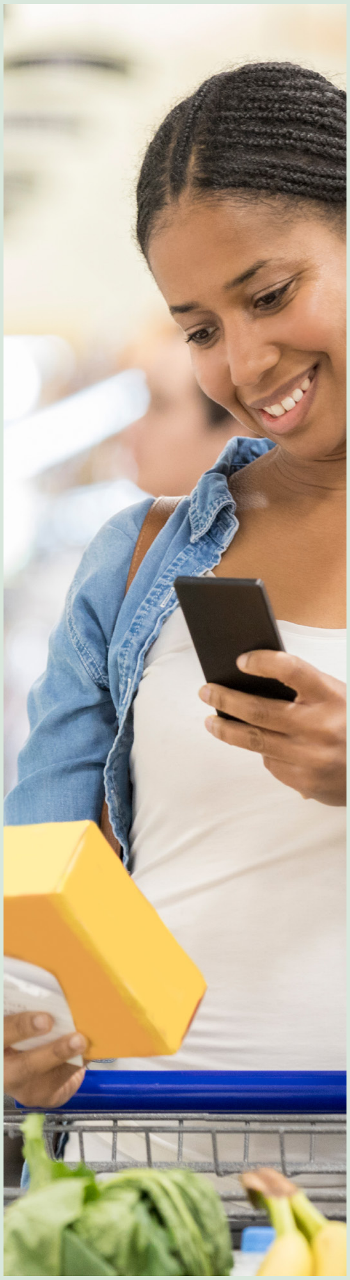
WHITE PAPER



HOW NEW TRENDS ARE DISRUPTING THE OLD CPG MODEL

Abstract

CPG companies are facing disruption owing to changing customer preferences and increasing digitalization, trends that have been further accelerated by the pandemic. Supply chain resilience is an imperative for larger and more traditional CPG firms to survive, particularly as newer, agile, and digital-first CPG brands make their debut.

This paper looks at the main trends driving change within the CPG industry. It provides an industry outlook and examines the role of digital technologies as a disruptor. It also provides some recommendations from Infosys on winning strategies that can help CPG companies ensure supply chain resilience and sustain business operations.

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Introduction

The 44% surge in online sales in 2020 has put the spotlight on new customer engagement models and how these impact supply chain platforms and processes.

Last year, when the pandemic shook the global economy, flexible, digitally-enabled, and demand-focused supply chain organizations seemed to do better than those with traditional models. eCommerce leaders like Shopify, Amazon, and Walmart started offering their platforms to smaller CPG companies, allowing them to compete online at lower cost. This challenges the traditional slow-to-respond distribution models of large CPG firms. We have observed that organizations that are closer to and have direct access to consumers are better equipped to understand customer needs and track the performance of products compared to those depending on channels or retailers. This translates to better on-demand planning, resulting in improved customer satisfaction and sustained growth. Such organizations are gaining market share at the cost of established CPG brands.

These trends are indicative of where CPG business models are heading. To avoid becoming irrelevant, companies must focus on business strategies that engage consumers in the new marketplace. They must re-imagine ways to personalize product value and streamline supply chains to fulfill consumer demand, no matter where they are or when they want it.

Growth in CPG will reside with those brands that can reorganize around a successful direct-to-consumer model – this is the future. This is 'CPG Retail'.

Industry Outlook

The line between digital and physical shopping is blurring, and it is being led by consumer-centric organizations, rather than distribution or cost-focused ones. Infosys sees 'CPG Retail' as a foundational pillar for the future growth of CPG.

Pre-pandemic disruption began with consumers willing to engage with upcoming CPG brands on social media and test innovative products. This space had no direct competition from larger CPG brands. Smaller firms understood their customer's preferences and were better equipped to predict demand and manage the supply chain.

Once the pandemic began, this trend gained impetus, pushing many consumers online and making it easy to explore new product options.

According to publicly available market research data, overall online sales grew from 6.4% of retail spend in 2010 (pre-pandemic) to 21.3% in 2020 when the pandemic lockdown came into effect, causing a surge in demand among certain categories. This translates to an impressive growth rate of 43.98% for online sales in 2020. While growth may drop a little in 2021, we expect that the shift to online will continue. Consider how the top 100 retailers in the USA (excluding Amazon at number 1 position) reported a whopping 74.1% share of e-commerce growth in 2020. This is a prominent increase from 49.4% share in 2019. The list includes Walmart entering at number two position as well as brands like Target, Kroger, Best Buy, Home Depot, and Staples ranking in the top 10 for online sales.

While some large CPG organizations witnessed high growth, this was mostly from revenue margins, not as much from sales volumes. New, digitally-focused companies are beginning to eat into the market share of established players. With access to digital shelves provided by marketplace companies like Amazon and Shopify, these digital-savvy brands cornered US $15 billion in sales from their larger counterparts between 2016 and 2020.

Current Operational Challenges in the Industry

- The supply chain networks of CPG companies are designed for maximum 'cost' efficiency. They are not agile enough to respond to sudden shocks and variability in demand and supply.
- For many CPG companies, variability in margins, cost, and trade planning are not designed for online channels. Online introduces a different cost-to-serve model, with variations across product categories. It also requires segmented digital advertising and warehouse locations.

Current Technical Challenges in the Industry

- Most incumbents in the industry have internal IT systems that are complex and inflexible. Data and insight tools are archaic and do not provide a real-time view, which delays decision-making. Significant time is spent on data cleaning and process integration, activities that require manual intervention. This makes supply chain processes (such as planning, re-planning, execution, visibility, and collaboration) rigid.
- CPG organizations lack a cohesive IT strategy to compete with digitally-native players. They also lack a unified digital platform for omnichannel presence, single view of customer for better engagement, customer analytics, and personalized predictive analytics.

Disruptive Trends Impacting CPG Companies

There are several **macro and micro** trends that are impacting commercial and supply chain processes at an unprecedented scale. This includes demand for deep social engagement, 24/7 availability, close-to-consumer fulfillment centers, and flexible models for delivery or pick-up.

Macro trends are generally global or external factors while micro trends are organizational changes and technical offerings. Since impact may vary by brand, Infosys recommends that organizations evaluate each trend according to the brand category and identify which brand can propel them into 'CPG Retail' with least business disruption while maintaining superior customer experience.

Macro Trends

- **Changes in consumer behavior:** Supply and demand disruptions within a networked supply chain are common. But consumer behavior keeps changing frequently, with the consequent need for flexible supply chains. Some of the notable changes in customer behavior are panic buying, growing cart value size, diversion from brand loyalty, and expectation of value. Traditional supply chain models of the CPG industry are slow to react, presenting opportunities to agile competitors.
- **Trade war and taxation:** Global trade adds another dimension. CPG companies must re-design supply networks from the varying levels of bill-of-materials (BOM) items down to the last node of the supply and fulfillment chain. Companies must also consider building resilient supply chains with characteristics like positioning manufacturing networks closer to the market for better response management.
- **Transparency in logistics:** To achieve leadership, companies should make their logistics predictable, reliable, and agile. Committing a 'delivery by' date is no longer a differentiator; rather, a 'delivery on' (specific) date is. Strategists must deal with challenges such as warehousing, input cost, labor cost, and tougher norms from regulatory and environmental perspectives. It requires a thorough analysis of network efficiency and economics.

Micro Trends

To meet customer needs, digital CPG companies offer dynamic pricing and discounts based on time and location for delivery. Delivery options are also expanding to include same-day and next-day deliveries. Subscription-based delivery commitments are a new standard.

Companies should track revenue growth and management to ensure profitability from these emerging channels. Digital has an important role to play here as legacy systems and processes are not flexible enough to provide new features at the required pace.

Digital Technologies for CPG

Digital-savvy customers are embracing technology to make better decisions around shopping, cooking, entertainment, travel, wellness, healthcare, and even education. Convenience, accessibility, and value are the main drivers behind the demand for digital innovation.

Typically, CPG brands reach consumers through retail stores and media marketing. This approach gives them little or no data about consumer behavior. Companies active on social media engage with consumers, but this need not influence buying decisions. To stay relevant, CPG companies should consider integrated digital transformation models that support direct-to-consumer (DTC), omnichannel, and consumer analytics platforms.

Digital Supply Chains

The supply chain, traditionally a cost center, was always a necessity. Now, it is how brands build value. The impact of the supply chain on the environment and its resilience to demand has become more important than ever. Thus, CPG organizations must reimagine supply chains as a strategic function for growth and value.

Digital Operations

- **Direct-to-consumer (DTC):** DTC gives companies direct access to consumer preferences, buying habits, and patterns. DTC is no longer an opportunity, but a necessity. The CPG industry needs strategies to address this gap. The emergence of mobile-based same-day or next-day delivery services, pioneered by Amazon Prime and Walmart+, is raising customer expectations. Some key services needed for DTC enablement are:
    - Buy online, pick in-store, collect from another store, or ship from store
    - Buy in-store, ship to customer from the distribution center or another store
    - Next-day delivery or same-day delivery
    - Delivery scheduling capability by time of day
    - Reserve online, pick and pay in store
    - Contactless delivery
- **Omni-channel:** Every customer touchpoint is an opportunity to understand the customer better and build value for the organization. This includes social media, websites, email, apps, SMS, direct mail, catalogs, employees, checkout points, kiosks, signage, advertising, and shopping routines. The trend of omni-channel forces companies to streamline their interactions with customers and meet the customer wherever they are.
- **Subscription model:** Pioneered by DTC leaders, this is one of the biggest disruptors that harnesses the power of recurring revenues. Those that ignore this trend risk losing out on long-term revenue streams. One of the biggest benefits of the recurring revenue model is revenue visibility for a relatively longer horizon, thus enabling reliable revenue forecast. Subscription deliveries are seeing a resurgence from the times when it was not uncommon for deli, dairy products, essentials, etc., to arrive at one's doorstep. Delivery frequency was customized to the household's preferences and consumption patterns. Today, boxed subscriptions have reappeared through models like Amazon Fresh, FreshDirect, and Google Shopping Express. Millions of customers can access regular deliveries through subscription services.
- **Contactless experience:** The pandemic has led to a preference for products that have short supply chains and pass through fewer touchpoints. Contactless methods such as drone delivery are gaining in popularity, particularly for delivery of essentials and medicines to isolated and elderly populations. While this is still quite new to many markets, it will provide opportunities for direct-to-consumer CPG firms to offer fresh products or add products with shorter shelf lives. It might also trigger another trend of 'going hyperlocal' due to demand for touchless supply chains.

Digital Marketing

Digitalization of consumer touchpoints is teaching brands to engage more holistically with the end-customer. Salient trends are:

- **Brand building:** Compared to baby boomers, Gen-Z is six times more likely to find newer brands "better and innovative". This puts pressure on established companies to retain customer loyalty.
- **Sustainability and transparency:** Transparency is the new brand currency. Gen Z is more likely to care about matters related to sustainability, ethical sourcing, eco-friendliness, and authenticity of ingredients. Those that tap into these trends can attract deeper customer loyalty. A brand named Honest Company selling baby products is a prime example of this. They differentiated themselves by ensuring sustainable and ethical sourcing of baby care products.
- **Product personalization:** This is where the power of direct-to-consumer comes. With advanced technologies, CPG companies can derive insights from the vast amount of data about consumers. Organizations need innovative tools to understand shopper needs, preferences, race, and gender, and provide personalized recommendations. However, they must do this responsibly and manage concerns about data privacy.

Strategies for the CPG Industry to Consider

The surge toward online is a step change for CPG companies. They should consider which product categories can drive value in the long run with the least business disruption. For companies in the initial stages of DTC implementations, Infosys recommends instituting a new brand or launching new products as a pilot project. Lessons from these implementations will uncover organizational and technical gaps that can be used to build a robust roadmap. It is important to note that the same products should be able to co-exist in DTC as well as distribution models.

Some key strategies to leverage digital transformation are provided below. Not all of these can be addressed at once. CPG enterprises should first evaluate each strategy and then create a roadmap based on priorities and maturity levels.

Organizational alignment: Companies need a cross-functional approach to defining and organizing teams to manage online operations. The main considerations are:

- Rethink where and how much to invest to ensure mid-term and long-term growth
- Identify distinct market segments and product categories for growth
- Focus the customer experience for unified communication across different channels
- Improve logistics for inventory and distribution management
- Create a planning team for variable demand sensing
- Enhance supply planning and responsiveness
- Use partners that support resilient supply chains and DTC shipments
- Define and operationalize new KPIs that focus on customers and enable supply chain efficiencies

Digital shelf management: Thanks to digital, customers are eager to test new products that can be delivered to their homes. While the retail industry does offer CPG products, functions like customer engagement, influence, and demand sensing are fragmented. Companies must plan for:

- Digital e-commerce platforms that offer products and consistent experience across channels
- Cohesive and intuitive self-service for product information, order, delivery, pricing, tracking, invoicing, payments, and claims
- Social platform integration for customer engagement and insight-driven decision-making
- Synergies between physical and online shelf availability

Integrated platforms: Systems integration improves IT efficiency as well as business growth. CPG firms should create a 'digital shelf strategy' alongside an 'integrated platform strategy'. The roadmaps of both must be aligned. IT systems and data are crucial to ensure a 360-degree view of customers, vendors, demand, products, and supplies. Companies must break data silos to provide:

- Seamless digital customer engagement
- Real-time data insights
- AI/ML for sensing and predicting demand, supply disruptions, and consumer behavior
- Single real-time view of product, inventory, supplies, and consumer demand across channels
- Integration with partners for real-time tracking and inventory movement

Revenue growth management: Companies must also deploy margin improvement strategies targeted at the biggest cost drivers: marketing, e-commerce revenue growth management, and omni-channel supply chain.

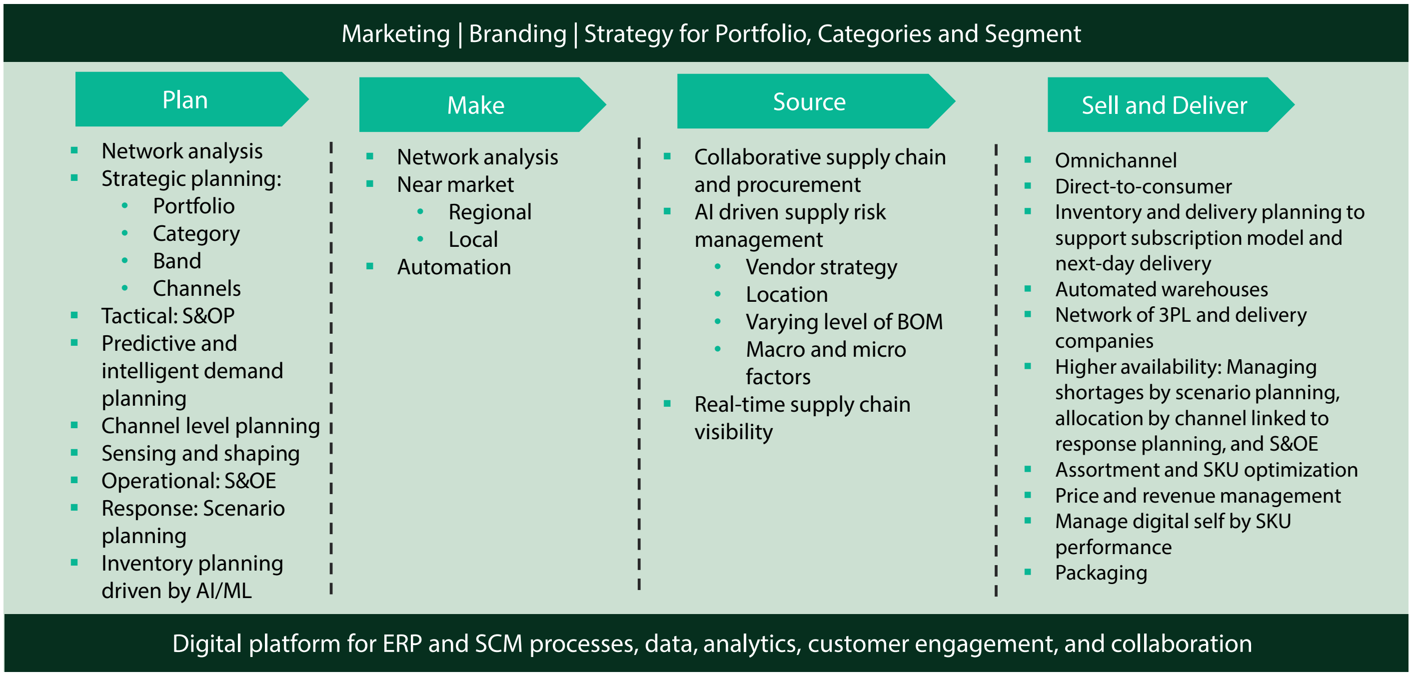
Packaging and pricing: CPG companies may also need to develop new packaging sizes and price points for digital shelves, which differ significantly from in-store ones. Most CPG packaging is created to look good on a retail shelf. But this may not be easy and convenient for shipping or in line with shoppers who are sensitive about the environment and safety. This is also an opportunity for CPG players to develop lighter and more eco-friendly packages.

Resilient SCM: This should be the topmost priority in supply chain transformation. For business continuity and successful customer engagement, companies must re-imagine the existing value creation model to make it resilient. Resiliency requires groundbreaking strategies that:

- Forge end-to-end connections across the supply chain, from suppliers to consumers
- Merge integrated planning with execution, customer engagement, and data platforms to sense demand variations in advance and recommend the appropriate response
- Build buffers at strategic points and develop alternative geographies for supply and manufacturing
- Evaluate vendors that can enable a resilient supply chain and onboard partners for predictable delivery
- Understand the trade-off between network cost, speed, and resilience. The balance between supply chain goals and agility should be considered at the board level

Capabilities for CPG Transformation

Infosys recommends the following capabilities for companies looking to develop, revamp, and reimagine their value chains. These capabilities span marketing, strategy, operations planning, make, and source. It supports new digital approaches to make, sell, and deliver CPG products.



Reimagine supply chain: Reimagine scenarios and capabilities

Figure 1 – Capabilities needed for digital and resilient supply chains

Collaborative supply chains: Managing lead-time and capacity is a major concern. Partnerships among CPG firms, retailers, grocers, discounters, third party logistics providers, warehouses, contract manufacturers, and gig economy players will trigger collaborative e-marketplaces. In future, we can expect these to consolidate into a network of networks. Within the industry, CPG companies performed differently during the pandemic in both revenues and margins. Thus, they should evaluate the product line and geographies before adopting 'CPG Retail' and choose those products that are least disruptive to the business but provide immediate lessons to build a roadmap.

Planning: New technologies now enable data-driven insights. Machine learning provides periodic analysis of network performance and inputs for all levels of planning, i.e., strategic, tactical, and operational planning.

- Strategic planning: To stay competitive, CPG companies must evaluate strategies across the portfolio. This includes product categories, sub-categories, customer segments, and channels. It can also include strategies from different perspectives such as relevance-led marketing and branding across channels, availability, assortment, collaboration, and revenue growth management.
- Sales and operations planning (S&OP): S&OP is continuously evolving from lengthy, labor-intensive data collection activities to automated, touchless, and scenario-driven processes thanks to machine learning. It allows CPG companies to consider product profitability across channels when simulating capacity or supply constraints. It also recommends actions for sales, operations, finance, and marketing. This requires a data strategy that provides real-time views.
- Intelligent demand planning: Traditional statistical forecasting-based demand planning is a three-week process where two weeks is dedicated to monthly planning cycles. This process must become faster, more efficient, and increasingly granular. Some of the key changes needed are:
  - Real-time updates at the lowest level of SKU, location (store or zip code level), and customer dimensions
  - Features such as short-term machine learning-based demand sensing and shaping capabilities to process real-time external signals
  - Real-time integration of short-term demand planning with supply, operations, and response management

Supply, operations, and execution: Integration between crossover areas of planning and execution is a must-have feature to bridge the gap. It requires a holistic approach to integrated order management, logistics, supply chain, and customer data platforms. This will help meet tactical objectives such as 24/7 availability as well as delivery commitments including same day/next day delivery in omni-channel and DTC models, and periodic deliveries in subscription models.

- Response management: CPG companies must be able to provide recommendations for auto-correction and auto-balancing of supply. They should also provide recommendations to resolve supply chain conflicts like inventory allocations, shortages, product and location substitution, assortments, and the impact of trade promotions across channels.
- Availability and assortment planning: Availability decisions go hand-in-hand with assortment planning. To restrict undue bulk purchasing on online channels during product shortages, CPG companies should leverage different techniques to manage customer buying behavior. This can include mirroring a supermarket experience through virtual carts with limits on order quantities to prevent bulk purchases. To meet the demands of these different retail environments, companies must offer the right assortment of products. Doing so hinges on key factors like variety, availability, and price.
- Inventory optimization: Inventory strategies should go beyond traditional approaches and include safety stock calculation and replenishment triggers. Techniques like last-mile delivery, next day or same day delivery, and moving warehouses depots closer to the market will help create nodes for buffer stock. At the same time, it is also important to avoid creating buffers across the entire demand and supply chain. Thus, inventory optimization must be dynamic and respond to changing demand, supply, delivery, and warehousing constraints at different fulfillment points.
- Warehousing: Higher availability and same-day delivery necessitate smarter inventory management, different assortment strategies, and additional warehousing capacities. All this comes at a higher cost. To contain costs, warehouses should become fully automated. Tighter integration of warehouse control systems and warehouse management functions are disrupting the plan-to-fulfill functionality.

Make: Redesigning the manufacturing base is complicated. It requires a data-driven, machine learning based approach to evaluate and simulate different scenarios in order to ensure the right decision regarding products, BOM components, make or buy, and locations. Some factors to consider are:

- New destinations for manufacturing and warehousing near the market have tougher norms such as requirements for environment-friendly manufacturing, more efficient warehouses, fleets designed for handing special conditions, safety regulations, and dynamic hours of service.
- Sustainability, inventory optimization, and automation for efficiency are becoming increasingly important.

Source: We have observed that DTC leaders collaborate effectively with providers on parameters like input cost. Thus, CPG companies should look beyond technical integration and focus on creating intelligent marketplaces that enable real-time collaboration and visibility across different vendors. Such a platform will also provide alerts in case of supply risks due to demand variance.

Infosys Recommendations

Based on our extensive experience with global CPG leaders as well as upstarts, Infosys believes that the CPG industry is entering a new era of consumer-centric decision-making that will encompass the entire organization. Hence, companies must develop a deeper understanding of the imperatives at a brand, customer, and geographical level before they define a digital transformation strategy.

Infosys recommends that CPG brands first assess their customer engagement maturity and digital supply chain capabilities. The following guidelines will help build a transformation roadmap:

- **Gain leadership buy-in:** Before initiating the digital transformation journey, leaders must determine what their aspirations are, where they will play, how they will win in the chosen market, how they will be organized, and what will be the priority initiatives.
- **Gauge organizational maturity:** A successful 'CPG Retail' journey is not about just technology, it requires transforming the entire value stream, organizational structure, processes, and human skills to support the initiative. Based on how they rank on prevailing digital transformation maturity models, CPG Retail brands can be categorized as Leaders, Learners, or Laggards.
- **Evaluate resilient supply chain maturity:** Offline models should not be used to drive online businesses. CPG companies must evaluate the resiliency of their supply chain network. Currently, these are designed for maximum cost efficiency with detailed planning over long horizons. In future, these models should include responses from social media about customer sentiment and other trends. This will allow for sudden variability of demand and supply.

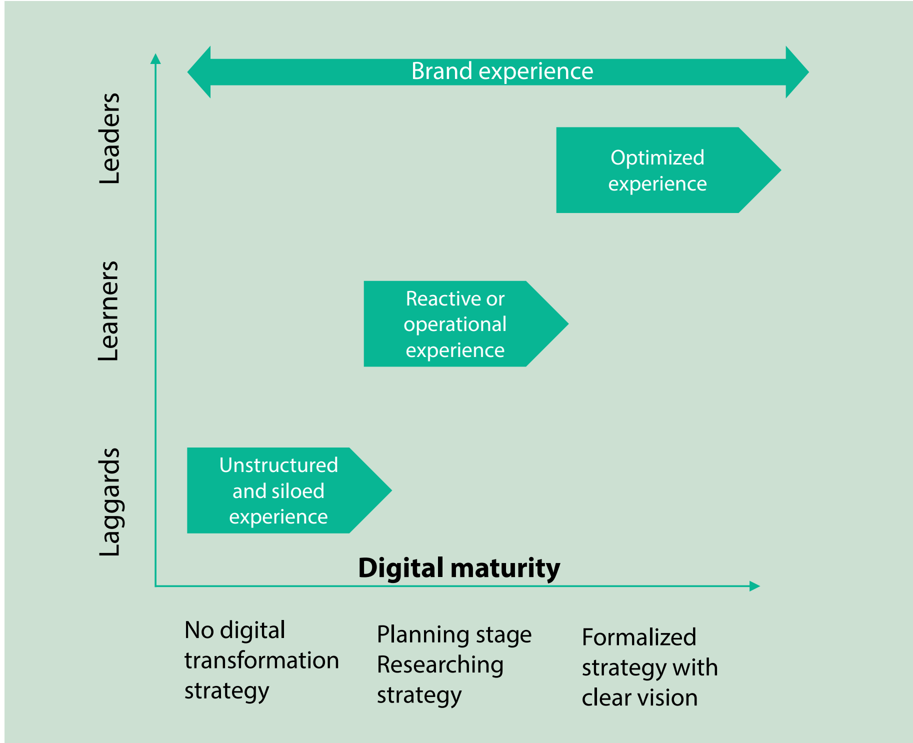


Figure 2 – Evaluating digital maturity and corresponding brand experience

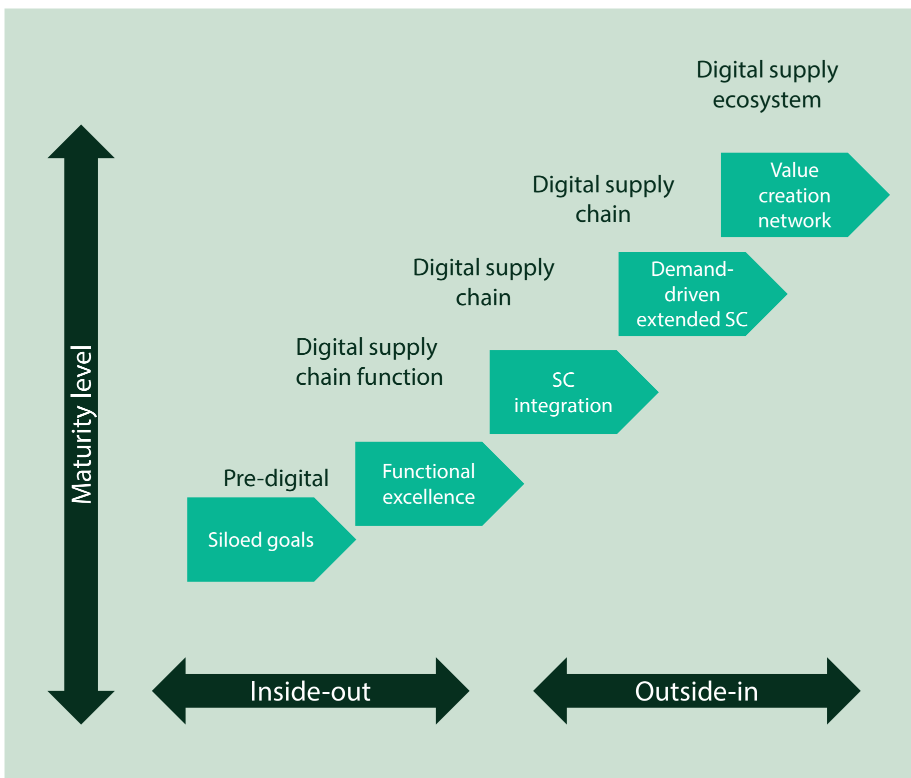


Figure 3 – Steps to evaluate supply chain maturity and create a roadmap

- Understand bottlenecks to operational excellence: This calls for a major overhaul of capabilities in terms of inventory policy, dynamic availability, demand sensing, demand shaping, sensing supply risk, and regional or local delivery networks. It also includes delivery service providers, gig economy players, intuitive and real-time in-transit visibility, safe handling, and environment-friendly packaging. It is important to understand which gaps should be addressed within the organization before building the roadmap.
- Review and adjust the digital platform strategy: Supply chains are expected to be flexible. They should anticipate and react to consumer demands, analyze market signals, and indicate supply risks. They should also recommend machine-based mitigation strategies. IoT is transforming packaging and delivery through smart sensors that collect real-time data. It can ensure viable internal package conditions for certain product categories. Thus, companies should take a holistic approach when developing IT platforms to support these capabilities. Digital platforms can integrate huge amounts of data in real-time from internal as well as external sources. Some of these include supply chain functions, customer engagement, and external ecosystem collaborators. Thus, the digital platform strategy should be reimagined with a focus on consumers and building resilient supply chains.

Infosys has enabled several global CPG leaders to achieve digital transformation. Leveraging the right industry experience and expertise, Infosys brings a practitioner's perspective and adopts approaches that are rooted in quick wins and accelerated value realization.

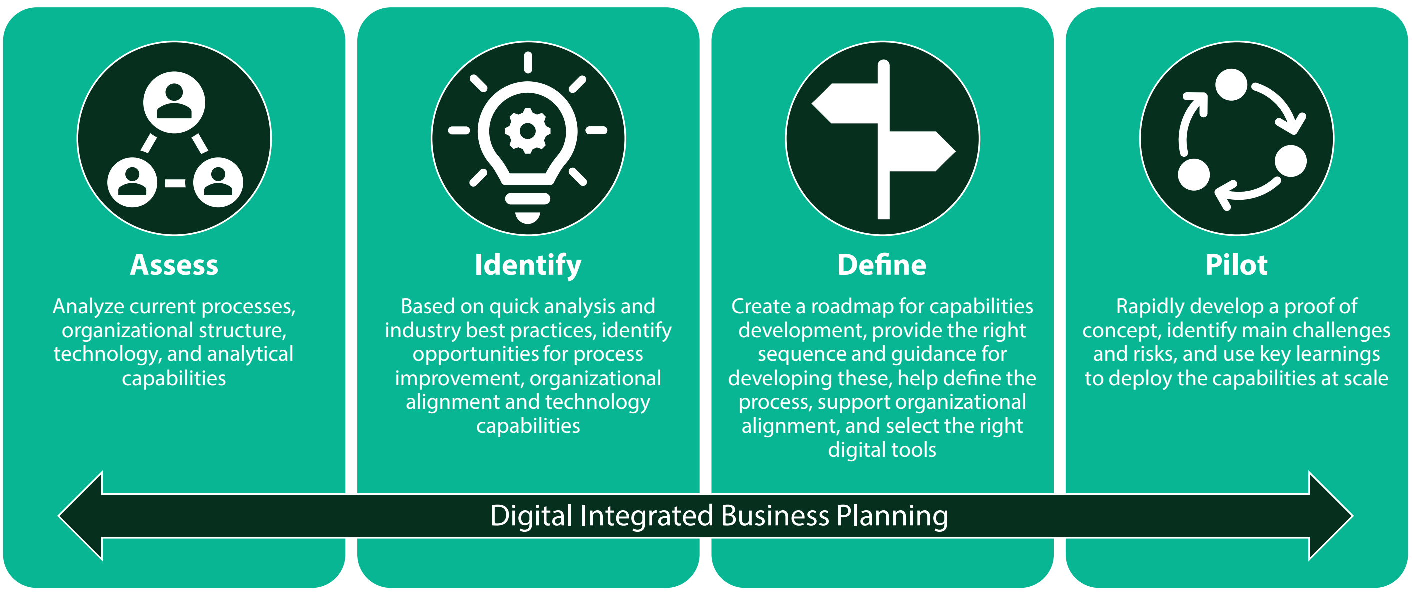


Figure 4 – Infosys approach to 'CPG Retail'

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