

# Transforming CPG Supply Chains in the Digital Era

## Abstract

The new wave of digital technologies that connect markets, empower consumers, and incentivizes innovation—has given birth to the omnichannel world. Consumer Packaged Goods companies now gain key insights into the needs and choices of their consumer through omnichannel interactions, and use this data to digitally reimagine their supply chains. Smarter supply networks are simply better at responding to customer demands.

The 20th century was about dozens of markets of millions of consumers. The 21st century is about millions of markets with dozens of consumers.”

**Joe Kraus,**  
*dotcom pioneer on the transformation of the business landscape over the past two decades.*

CPG companies can leverage consumer data to transform personalized branding, marketing, product positioning, and delivery option—this changes the game.

## Digital Disruption Changes the Game

The web, mobile apps, and social media are allowing consumers to discover, search, purchase, share knowledge, and influence others much more rapidly. This has created consumer-to-consumer (C2C) marketplaces and democratized commerce where the cost of switching is low.

Additionally, connected consumers can now:

- Purchase products and services anywhere, anytime and select the mode of delivery that best suits their needs and economics.
- Facilitate crowd sourcing of products and services based on bidding or auctions.
- Share service such as rides and home delivery or order picking and pick up services.

The result has become an omnichannel market environment that has changed traditional Consumer packaged goods (CPG) go-to-market and fulfillment economics. CPG companies must leverage digital capabilities to provide a more 'sticky' consumer experience that illuminates the path to purchase and engenders customer loyalty.

## Digital Trends in CPG Supply Chains

For many CPG companies, success depends on digitally transforming their supply chains and managing deliveries. This leads to consumer centricity and can be achieved using Big Data, Intelligent manufacturing, Master Data, and systems thinking.

### Big Data

Big Data and scientific analytics methods capture consumer sentiments in real time and by location. The ready availability of Big Data plays an important role in driving future trends in three major areas:

- i. Collaborative commitment both internally, cross functionally, and with multiple channel partners in real time
- ii. SCM Control Tower for end-to-end visibility and orchestration of process management
- iii. Embedded analytics to provide insights from new Big Data

We now have more 'point of demand data about consumers' demographics and behaviors well ahead of the 'point of sale'. Connected commerce illuminates the 'path to purchase'.

Reusable packaging, delivery sharing, reductions in carbon footprint, all result from digital connected commerce and help in protecting the product and the environment, and save costs.

Backed by the abundance of data available on individual consumer behavior and segmentation, leaders can leverage insights to:

- Create new marketing strategies and initiatives
- Identify and present different fulfillment 'flowpaths' to the customer that offer them choice while also incentivizing them to choose the most profitable flowpath for the supplier, i.e. omnichannel fulfillment
- Reimagine their existing supply chains and create digital supply networks that can respond to and leverage the dynamic behavior of consumers

## Intelligent Manufacturing

Intelligent manufacturing with the emergence of automated processes, robotics, and additive or 3D printing is transforming the way companies make things. The automation of material handling, planned distribution, and the arrival of drones are transforming the way consumers receive goods. Rapidly advancing technologies are enabling market building and cost effective fulfillment as well as optimizing packaging.


## Master Data Management

Master data management is the foundation for digitalization; but to be effective it requires strict on-going governance by both—business process owners and IT data hub owners.

A Process, Applications, Integration, Data, Organization and Data Governance (PADIO) methodology benchmarks mega data management processes, applications, data, organizations, and critical capabilities such as data governance and data quality.

## Organizational Models and Architecture

The main learning from systems thinking is that if you want to change the results, you have to change the structure. To prepare for, and develop digital enterprise architecture, organizations must structure themselves vertically in execution and horizontally in process. Just as the market is moving to omnichannel, information technology enables omni-directional, real-time communication of information to synchronize cross-functional processes.



---

In a digital world, demand-based planning models have far-reaching implications as they liberate working capital, reduce fixed capital, increase revenue and margins, and simultaneously optimize costs. Effective demand management can deliver improvements on return on capital employed (ROCE) of more than 30%.

## Capturing the Benefits of Digitized, Dynamic Supply Networks

### **Design a roadmap**

Digital transformation has to be built on the foundation of master data management with the ability to deliver a single source of truth. The roadmap should seek to expand the organization's digital footprint with digital marketing supported by social media data, mobile apps, a strong content strategy, and direct consumer connection.

### **Adopt scientific methods**

Demand forecasting, segmentation, and supply network simulation, along with the ability to design, simulate, and reconfigure are vital ingredients. Regular scenario planning is an important discipline because it leads to demand shaping or shifting, sensing, and orchestration, and provides response processes and analytics required by digital market ecosystems.

### **Think smart connected supply networks, not chains**

Digitally integrated business processes can be used to take demand-driven supply chains to the next level. A digital market ecosystem, which incents partners to integrate, and segments supply chains designed from the consumer outward, will increase profitability in the context of the omnichannel fulfillment paradigm.

### **Become agile**

Fail sooner and succeed fast is the mantra of the digital era. Creation of pilots and methodologies such as rapid iterative experimentation processes (RIEP) provide ways to validate investments. Selecting projects that reinforce or extend value to the consumer and partners, and differentiate and defend against the competition, all improve the chances that our digital supply networks investments will be sustainable.

## Conclusion

In business, as in the natural world, the adage holds true: It is not the most intellectual of the species that survives; it is not the strongest that survives; but the species that survives is the one that is able best to adapt and adjust to the changing environment in which it finds itself. This transformation will require businesses to focus on more distributed and flexible order fulfillment processes and integrating them to sales and marketing processes.

In the modern and collaborative relationship companies now share with their consumers, there is a need to build a demand-driven digital supply network that can sense and respond to opportunities.

## About The Authors

Matthew Lekstutis,  
Lead Partner,  
Supply Chain Management,  
Consulting, TCS

Vivek Soneja,  
Managing Partner,  
Supply Chain Management,  
Consulting, TCS

Mark Newberry,  
Partner,  
Supply Chain Management,  
Consulting, TCS

Richard Sherman,  
Senior Fellow,  
Supply Chain Management,  
Consulting, TCS

Vikas Phatak,  
Engagement Director,  
Supply Chain Management,  
Consulting, TCS

Ravindra Asavadi,  
Relationship Manager,  
Retail Consumer Goods unit,  
TCS

## Contact

Visit the [TCS' Consulting page](#) on [tcs.com](#) for more information

Email: [global.consulting@tcs.com](mailto:global.consulting@tcs.com)

Blog: [Enterprise Insights](#)

Subscribe to TCS White Papers

TCS.com RSS: [http://www.tcs.com/rss\\_feeds/Pages/feed.aspx?f=w](http://www.tcs.com/rss_feeds/Pages/feed.aspx?f=w)

Feedburner: <http://feeds2.feedburner.com/tcswhitepapers>

## About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled, infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at [www.tcs.com](http://www.tcs.com)