Abstract

Typically, CPG companies have been pioneers in defining industry best practice processes and solutions. However, this is changing with the emergence of new players that are digital and agile with better reach to customers. As traditional ways of doing business get disrupted, CPG companies must adopt new success drivers and define digital imperatives to keep pace with millennial consumerism, technology innovation, agile local competition, price and cost pressures, and environment and sustainability pressures. This paper explores how each of these imperatives is changing the landscape for CPG companies. It also explains how Infosys solutions and offerings from its SAP Practice can help CPG organizations adopt digital to stay relevant and become intelligent enterprises.
New business drivers in the CPG industry

The CPG industry is witnessing dramatic change owing to dynamic customer expectations about buying products and services. The millennial consumer wants greater convenience when shopping without having to spend excessive time visiting shops and stores to find their daily needs. They also expect customized discounts and offers, which call for customized brand engagement. Further, as awareness increases, consumers are moving towards healthier, safer and more sustainable choices. Thus, they also want to know about product provenance and require end-to-end traceability.

“The e-commerce channel contributes about 35% of order volumes translating to about 10% of revenues. It’s expected that the revenues through e-commerce would surpass 30% in the next 10 years, which is a significant portion of direct revenue.”

- Source, McKinsey

The digital elephant

Among all the disruptive innovation happening in today’s marketplace, advancements in digital technology are the most pervasive. Some emerging brands have defied conventional approaches and pioneered new business models enabled by advancements in technology. Industry 4.0 is also driving digitalization in the manufacturing domain, thereby powering smart, efficient and connected supply chains.

Top disruptive technologies

One look at the present CPG value chain highlights the impact of digitization. The technology with the most impact is analytics supported by the availability of big data. The next two are IoT and cloud computing followed closely by machine learning and advanced robotics.

As early adopters of such technologies reap the benefits of greater efficiency, there is a pressing need for CPG companies to stay ahead of the curve and the competition.
Challenges

Clearly, digital disruption and the demands of millennial consumers are driving the need for CPG companies to reinvent themselves. Some of the other key challenges driving this transformation are:

Local competition and startups — The nature of local competition is shifting from traditional companies to agile and digitally-enabled businesses. These local incumbents can tweak offers and promotions very quickly and possess well-orchestrated and lean supply chains for deeper customer reach.

Health, environment and sustainability goals — Customers, governments and regulatory bodies are all steering industries towards responsible manufacturing and distribution processes. Nowadays, companies are required to minimize environmental impact in addition to reporting their carbon footprint and the degree to which they achieve their sustainability goals.

Business imperatives for CPG firms

Focusing on the key business imperatives will help CPG firms convert the above challenges into opportunities and quick wins.

One key imperative is to collaborate with, customers, suppliers and partners to enable customized promotions and discounts to the new age consumer. This would require to reimagine new generation agile product development, hyper-responsive supply chains, and the ability to report on sustainability initiatives.

Another main imperative is to digitize the enterprise core with technology platform changes and align these with collaborative process changes driven by digital technology solutions. This will ensure that the organization remains competitive while adapting to new-age demands.

While CPG products have one of the most “digital savvy” consumers, CPG firms are lagging behind on digital adoption.
The need for an Intelligent Enterprise

Most of the leading CPG organizations run on massive ERP-enabled technologies (mainly SAP). Thus, the main focus should be on digitally enhancing this core platform to support the re-invention of core processes. This digital core can then be extended with additional technology/applications to be more collaborative in using big data, social media, etc.

Having keenly observed the changes in the CPG industry and technology developments, Infosys has built a robust foundation that helps CPG companies embrace digitalization across their value chains. As part of digitizing the core, Infosys helps companies:

Energize the core – Migrating to SAP S/4 HANA platform provides the right digital readiness for organizations. While the native HANA database and the underlying efficiencies in the processes provide an immediate uplift, the HANA cloud platform and SAP Leonardo enable digital innovation. In this way, companies can transform into intelligent enterprises to tackle the challenges of tomorrow.

Rebuild the processes – Shifting to a new platform should not be treated as just another upgrade. Instead, it should be viewed as an opportunity to re-engineer processes and align with newer ways of doing business. Some of the immediate benefits to be gleaned are dashboards that enhance user and manager efficiency, skillful utilization of embedded analytics, customization of standard Fiori applications to improve KPI-driven processes, and leveraging mobility apps to extend user productivity.

Build an intelligent enterprise – Digital transformation journeys deliver the greatest value when they support the innovative utilization of various digital technologies. Infosys has designed an entire stack of integrated digital solutions for CPG companies to leverage advanced technologies including AI/ML, predictive analytics and blockchain, to name a few. These digital enablers help clients create futuristic processes to address the challenges of tomorrow.
Infosys digital footprint – How we have helped Fortune 500 customers

Shifting to a digital platform must be supplemented with adopting digital solutions with greater agility. While many companies prioritize their transformation into intelligent enterprises, it is often the implementation roadmap that is arduous. Plugging this gap is crucial if companies want to stay ahead of the competition. Over the past few years, Infosys has been helping clients build deeper engagements with joint proofs of concept (PoCs) that have delivered significant benefits as described below:

- Automation helps FMCG company gain supply chain agility – A major FMCG client partnered with Infosys to automate their supply chain planning. This involved developing a solution that automates distribution requirements planning (DRP) and availability planning, supported by over 400 FTEs globally. By adopting a DevOps approach, Infosys helped the client identify the key problem areas and delivered a ML-based solution to meet their needs.

### INTELLIGENT FORECASTING

<table>
<thead>
<tr>
<th>Business Driver</th>
<th>Benefits Realized</th>
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<tbody>
<tr>
<td>• Distribution Requirements Planning (DRP) and Availability Planning supported by 400+ FTEs globally</td>
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<tr>
<td>• Planners were found to be spending significant time on re-validation of recommendations generated by the planning systems</td>
<td>• Planners focused on Value added tasks</td>
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<td>• Critical planning input constraints were found to be disintegrated</td>
<td>• 75% effort reduction in Planning</td>
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#### Intelligence delivered

- Harmonized and automated the Master Data Management activities.
- Designed a Proof of Concept before scaling up.
- Developed Value Stream Maps to analyze current state and develop future state with global collaboration.
- Used ML to automate and manage all transaction workflows for DRP and Availability Planning.
- Codified the recommendation-generation and decision-making processes.

#### Value Stream Maps

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<tr>
<th>STREAMLINED ALLOCATIONS</th>
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<tr>
<th>Business Driver</th>
<th>Benefits Realized</th>
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<tr>
<td>• With a long time to go for S/4 HANA implementation, client wanted to use the advanced ATP functionalities like product allocation (PAL), back order processing (BOP), and complete business rules and logic around quota, far hare, etc. the allocation run takes hours to run, thereby pushing the shipments ingestation further.</td>
<td></td>
</tr>
<tr>
<td>• With complex business rules and logic around quota, far hare, etc. the allocation run takes hours to run, thereby pushing the shipments ingestation further.</td>
<td>• Order confirmation run-time reduction – takes minutes compared to hours.</td>
</tr>
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#### Intelligence delivered

- Combination of ECC and S/4HANA systems, wherein all transactional data (sales orders, STOs, stocks, deliveries, etc.) is replicated from ECC to S/4.
- ATP-like algorithm is run in the HANA side car to confirm sales orders and this confirmation quantity is written back in ECC sales orders.
- The allocation rules (prioritization, quotas, etc.) are developed in the side car which runs multiple times faster than ECC batch.
- Results from this run are sent back to ECC.

#### Value Stream Maps

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<th>Additional revenue</th>
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$10K/Day $10M Savings

This was one of the most critical and time-intensive processes for the client that in turn affected the shipment process. Infosys leveraged the power of S/4HANA Sidecar to accelerate allocation processing. This has delivered immense efficiency gains with 60%-time savings while enabling the client to dispatch more shipments every day.
Infosys differentiators – Engage more to be more

Infosys has developed an overarching methodology to engage with clients through DevOps sessions, hackathons, ideation workshops, joint PoCs, etc. These provide a collaborative platform for co-innovation and encourage client participation to help achieve goals faster.

Infosys has an intelligent enterprise innovation lab dedicated to creating relevant solutions across the CPG value chain. This digital lab provides clients with maximum benefits when they migrate to the SAP digital platform (S/4HANA) or integrating digital technologies with current ECC platforms. Clients can easily visualize each solution, explore relevant ideas for digitization and build relevant business cases for their transformation initiatives on S/4HANA.

Infosys solutions for the intelligent enterprise

As part of its SAP practice, Infosys has a dedicated Center of Excellence (CoE) that defines the roadmap for solution adoption. Some of our SAP-enabled digital solutions offerings are shown below:

- Planning: Using advanced deep learning models like RNN’s especially suited for forecasting, an intelligent enterprise can foresee the sales of products and plan their stocks accordingly. Store managers can make the predictions with much higher accuracy.
- Supply Chain: Machine Learning algorithms are used for accurate prediction of on time vs late delivery predictions via parameters like shipping point, freight type, ship to party, destination point etc. which impact delivery time.
- Finance: Machine Learning algorithms are used for accurate prediction of on time vs late delivery predictions via parameters like shipping point, freight type, ship to party, destination point etc. which impact delivery time.
- Manufacturing: SAP-certified mobility based warehousing solution with cloud integration
- Procurement: Machine Learning based analytics on contracts nearing expiry, for easy identification and segmentation by vendors and priority
- Predictable Contract Management: Auto-renewal based on set rules
- Trade & Promotion Planning: Ability to trigger the workflow for approval of extended contracts
- Dynamic Customer Segmentation: Customized promotions based on customer patterns
- Order Entry Automation: Combines leading digital technologies for end to end Order Entry Automation
- Order Entry: Order Entry team only handles exceptions from OEA
- Sale & Fulfillment: OEA scales up on-demand for handling order fluctuations

Infosys continues to create innovative solutions that leverage Blockchain, IoT, predictive analytics, AI/ML and other digital technologies. To help CPG clients build smarter value chains, we are also in the process of achieving SAP-certification for some of our solutions in addition to collaborating with SAP to design best-of-breed integrated solutions for a complete digital transformation experience.
Navigate your next with Infosys

Infosys works closely with clients and prospects by demonstrating intelligent solutions, creating proofs of concepts for key process areas and helping clients maximize the potential of digital technologies.
About the author

Sameer Ahmed, Industry Principal

Sameer is a thought leader in the Consumer Products and Goods domain with Infosys’s SAP Practice. Having more than 22 years of experience in delivering large scale SAP led transformation programs, rollouts and upgrades for Fortune 500 clients he has keenly followed the ERP evolution and is closely working on the need for the Intelligent Enterprise in CPG industries. Being a functional expert, he has worked in building significant Supply Chain solutions for some of our clients, with major focus in the Order to cash space.

He has a keen interest on enabling the enterprises with new technologies on Blockchain, IoT, Machine Learning, etc. He is currently involved in collaborating with solution architects and technology leads to build digitally enabled solutions for the future enterprise across the CPG value chain.