

## **FOREWORD**

Relationships and support networks, both business and personal, are more important than ever. Organizations like yours are using data-driven insights to make smart decisions about their future. Access to timely information—and the ability to act on it quickly—has never been more critical. In that spirit, we want to share content that may be helpful as you plan your next steps, now and long term.

The following IndustryWeek survey-based guide, *Top 10 Best Practices to Drive Your Competitive Edge in CPG Manufacturing*, contains valuable information about how leading CPG manufacturers are tackling rapid, fundamental changes. The guide shares the technologies, processes, and operational strategies they are deploying to build resiliency and agility into their manufacturing processes and supply chains. While the survey was conducted prior to recent events, we believe the findings are still—if not more—relevant.

We're here to answer any questions you have today—and we'll be here if you need to make changes to put your business on the right path for tomorrow. Please feel free to visit <u>our supply chain</u> <u>research hub</u>, which contains many additional resources and contacts.

Stay safe and be well.

Julia Vagdati
Director of Product Marketing
Supply Chain and Manufacturing Cloud
Oracle





For the last several years, the consumer packaged goods (CPG) industry has been in a state of rapid, fundamental change, and today's environment has only accelerated this process. New technologies, new business models, and shifting consumer demands have transformed the market, requiring quick action and extreme flexibility from every manufacturer in the space.

How can manufacturers survive—and thrive—in this era of change? IndustryWeek recently partnered with Oracle to survey leading CPG manufacturers to discover their most successful strategies, tactics, and technologies. Based on the results, we have identified the top 10 best practices to keep progressive CPGs ahead of the pack.

1.Deploy mixed-mode manufacturing to gain competitive advantage

Roughly 44% of the CPG manufacturers surveyed are abandoning the traditional division between discrete and process manufacturing in favor of mixed-mode systems. By combining both processes into the same plant—or even applying them to the same product—using a shared cloud-based software backbone, mixed-mode manufacturing has allowed CPG businesses to increase flexibility and responsiveness, earn greater distribution and market share, and, above all, grow revenue.

2. Outpace change with real-time data and visibility across your supply chain Not surprisingly, 80% of CPG manufacturers agree that access to data is either "critical" or "very important" to their decision-making process. But to truly thrive in this data-driven era, CPG manufacturers need to develop a seamless, end-to-end data trail throughout the entire manufacturing and delivery process.

This data, when collected through a cloud application, provides the insight needed to improve production, identify supply or operational issues, and deliver the highest quality products. It also provides a "single point of truth" and complete visibility of status and operations across the multitude of historically disconnected systems that stretch from design to manufacturing to the hands of the customer.

3. Optimize business operations with smart manufacturing

Many CPG manufacturers are on a clear path toward smart manufacturing: a true digital transformation that pulls data from across the enterprise into operations. In total, 40% currently have an enterprise-wide strategic roadmap to drive this, but 51% of cloud users are already following such a plan, nearly twice that of on-premise users. Cloud users hold a distinct advantage in these efforts because they have a structured approach to exploring the tools, technologies, and strategies of smart manufacturing. This makes them far more likely to drive process automation and align operations to real-time fluctuations in customer demand.

Sponsored by



4. Increase productivity and lower costs with predictive maintenance

CPG manufacturers using cloud applications are 158% more likely to have "excellent" predictive maintenance processes than their on-premise competitors. By pulling in real-time data from the full breadth of machines, processes, and manufacturing systems, artificial intelligence-driven analytics can detect otherwise undetectable variations in performance and automatically schedule maintenance to stop downtime before it occurs. With average downtime incidents racking up costs of over \$1 million¹, this is the single most powerful tool in the smart manufacturing arsenal to cut costs and improve productivity.



5. Advance customer centricity with cloud applications

Nearly 60% of survey respondents indicate that they are either already using cloud technologies or have plans to migrate their key applications—and another 20% are already using cloud/on-premise hybrid solutions in their operations.

Leveraging cloud has proven critical to market leaders, providing the flexibility needed to meet today's extreme market dynamics, plus the capability to pull together key data from consumers as well as across the manufacturing and supply chain ecosystems. These features are essential to accelerating innovation and producing new products faster to exceed customer expectations.

6. Anticipate and respond quickly to changing customer demand by connecting your ecosystem

Cloud users are over 63% more likely to be developing full ecosystem collaboration than on-premise competitors. By leveraging cloud to connect not only their own enterprises and distribution chains but their entire manufacturing ecosystems—from contract manufacturers and suppliers to retailers and wholesalers—CPG leaders can clearly identify sales trends before the market, anticipate supply issues before they delay production, and align manufacturing to customer needs. This allows them to respond faster and serve customers better than the competition.

7. Leverage pre-built solutions with embedded emerging technologies

Survey respondents identify a host of emerging technologies they are currently or considering leveraging in their operations. Top choices include predictive analytics at 58% and artificial intelligence/machine learning at 51%—all beating the far more established IoT at just 44%. This signals that technology innovation is becoming a core competitive differentiator.

For some, implementation complexities can stop digital progress before it begins. Savvy CPG manufacturers can bypass this roadblock by embracing cloud applications pre-built with embedded emerging technologies. These applications are scalable to business requirements and present a perfect opportunity to get a head start on modernizing critical operations systems.



## 8. Outperform competitors with (artificial) intelligence

Of the 51% of CPG manufacturers working toward artificial intelligence (AI) and machine learning, 26% are already leveraging the technology and another 25% are considering doing so. This result isn't entirely surprising. Coping with vast amounts of enterprise data, consumer data, partner data, and data generated from sensors and IoT applications can become incredibly challenging. By tapping into big data streams, artificial intelligence and machine learning transform data into valuable insights by detecting patterns, trends, and irregularities—from deliveries to quality specs to orders to returns.



## 9. Improve transparency and trust with track and trace capabilities

Nearly a quarter of survey respondents are looking at the next big technological advancement to help improve their track and trace capabilities: blockchain. In fact, early adopters are already seeing powerful benefits.

A Deloitte study notes: "The ability of blockchain to track, trace, and authenticate ingredients and products, and record contracts and transactions, can be used to solve or reduce common issues for CPG companies such as traceability, compliance, flexibility and stakeholder management." By providing an uneditable log of each step of the manufacturing and delivery process, blockchain creates an unprecedented bond of trust between the producer and the consumer. For the CPG industry, this reduces the need for intermediaries between producers and consumers, shifting power from retailers to consumers. To further customer centricity, CPG companies are exploring how blockchain can facilitate direct to consumer (D2C) opportunities.

## 10. Don't get left behind: Act now

The CPG industry has reached an inflection point. With expanding markets, wild demand volatility, and an environment of extreme change, only the nimble and resilient will succeed.

Thriving in this ever-evolving environment depends heavily on the ability to understand obstacles, assess expectations, and effectively harness modern technologies. Every manufacturer must begin that journey today or risk getting left behind.

The State of the Market:

How the Right Mix of Technology and Strategy Puts CPG Manufacturers on Top



Sponsored by



<sup>&</sup>lt;sup>1</sup> "The (Rising!) Cost of Downtime." Aberdeen, November 8, 2019.

<sup>&</sup>lt;sup>2</sup> "New Tech on the Block: Planning for Blockchain in the Retail and Consumer Packaged Goods Industries." Deloitte, May 24, 2018.