



**Strategy guide:**  
**Driving CPG**  
**innovation**  
**with SAP on**  
**Google Cloud**

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## Introduction

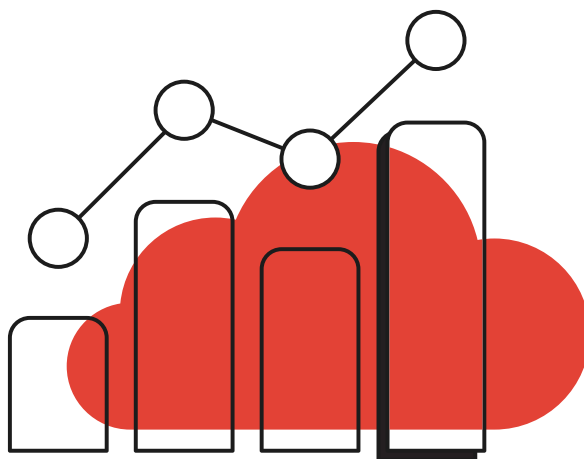
Accelerating digital and commerce trends are the new normal in the consumer packaged goods (CPG) industry, requiring greater business agility along with flexible data and system access on demand. Unlocking the value of SAP environments in the cloud is critical for CPG companies when creating a consumer-centric competitive advantage.

For the past 20 years, Google has partnered with leaders in the CPG industry on their journey to better serve consumers. With Google Cloud, CPG companies can discover greater consumer closeness and accelerate digital transformation through a value-driven, differentiated offering. Google Cloud enables CPG companies to realize innovation at scale with SAP applications and future-proof their business on the cleanest cloud in the industry.

## Consumer goods industry trends

Even before the COVID-19 pandemic, the CPG industry was being disrupted. Consumers are demanding more from the brands they buy, and companies are battling multiple market pressures that have only been intensified by the pandemic:

- **Engagement.** Today's consumers seek out brands with purposes that align with their values, give them a voice in product creation, and provide transparency in their operations. Consumers want to feel engaged with the brands they purchase.<sup>1</sup>
- **New business models.** Direct-to-consumer (DTC) and subscription services are rising in popularity for CPG. Although still a relatively small portion of total sales, ecommerce growth is accelerating.
- **Brand loyalty shifts.** Over the last five years, sales have shifted from large, established brands to smaller, niche, and private label brands.<sup>2</sup> COVID-19 reversed this trend at least temporarily, driving consumers back to larger brands due to availability. Searches containing "who has" and "in stock" are up over 8000% YOY.<sup>3</sup>
- **Sustainability.** In a world of growing excess and waste, consumers value companies that emphasize sustainability in their products and supply chains. CPG companies are increasingly expected to provide transparency into the sustainability of their business practices.
- **New technologies.** Artificial intelligence and machine learning, the internet of things (IoT), and blockchain are promising to change how CPG companies run their businesses. Industry leaders are already utilizing these new technologies to react to consumer trends and drive more efficient operations.



## Creating a digital enterprise

Leading CPG companies are capitalizing on the potential of emerging technologies and leveraging the power of the cloud to create digital enterprises. In doing so, they unlock value through reduced operational costs, faster innovation, improved marketing ROI, and greater transparency and sustainability—among other benefits.

For SAP customers, accessing these benefits requires creating a digital enterprise with SAP at its heart. SAP already drives core business processes across most enterprise functions in CPG companies, and modernizing these operations is step one in unlocking next-level data and analytics capabilities.

Creating a digital enterprise with SAP at the core requires establishing a digital foundation on a cloud platform capable of supporting and optimizing SAP workloads well into the future. From there, CPG companies can enable innovation by identifying high-value use cases that unlock SAP data and utilize the advanced analytics capabilities of the cloud.



In today's on-demand, omnichannel world, it's not enough for CPGs to understand their consumer. It is mission critical that they anticipate consumer preference and deliver personalized experiences. The winners will be those that can reduce time to insights by treating all their data as strategic assets, breaking down data silos to enable real-time business intelligence. With SAP on Google Cloud, CPGs are transforming consumer relationships and business outcomes."

**Giusy Buonfantino**, VP of Consumer Packaged Goods at Google Cloud

## How SAP on Google Cloud can help CPG companies

Google Cloud establishes a digital foundation for SAP customers by simplifying SAP deployments and offering a suite of applications that integrate with and enhance SAP functionality. A Forrester study on the total economic value of Google Cloud for SAP customers found an average payback of less than six months and a total ROI of over 160%.

By migrating SAP workloads, CPG companies can reduce server downtime, drive productivity improvements for business and IT users, and run faster upgrades.<sup>4</sup> And by integrating SAP and Google Cloud, CPG companies can further innovate by taking advantage of Google Cloud's extensive data management, AI and ML analytics, and hybrid/multi-cloud capabilities.

SAP and Google Cloud help CPG companies to power next-level intelligent operations with the flexibility and scalability of the cloud.

### 01 Connect operational and business data at scale

Google Cloud connects data hosted in various locations across a global network, allowing CPG companies to gain insight from key SAP data sources across business functions. Traditionally hard-to-access SAP data can be retrieved and utilized in other applications with ease using Google Cloud's storage capabilities, with streamlined access possible through Application Programmer Interface (API) calls.

[Rémy Cointreau turned to Google Cloud](#) to maximize value in their migration to SAP S/4HANA by enabling easy access to SAP system data across Finance, Manufacturing, and Supply Chain. This approach helps Rémy Cointreau make better business decisions and gives the team the ability to create innovative customer approaches.<sup>5</sup>

Most CPG companies today are utilizing Google's marketing platform to reach new customers and grow their business. Combining the wealth of data from Google's marketing platform with the power of BigQuery, Looker, and other Google Cloud tools can unlock more effective trade promotions, improve demand forecasting, and transform decision making. In addition to marketing data, CPG companies can leverage Google Cloud's extensive data signals from Google Portfolio platforms (web search data, weather, maps, shopping, etc.) to bring crucial consumer trend data from outside the enterprise into SAP systems.

Google Cloud also provides an advantage in its ability to integrate with legacy, on-prem systems, and other cloud platforms. A recent Gartner survey found that 81% of public cloud customers are using multiple cloud providers.<sup>6</sup> Google Cloud's hybrid and multi-cloud capabilities allow CPG companies to bring together the strengths of multiple cloud platforms, on-prem solutions, legacy providers, and a diversity of hardware.

## 02 Create an intelligent organization

Google Cloud's easy-to-use capabilities allow business leaders to rapidly make effective, data-driven decisions. Google Cloud's query performance democratizes data accessibility and helps generate insights from previously siloed data across business units. Enhanced processing speeds combined with Google Cloud's AI/ML capabilities enable insights to be obtained at a rapid pace from across SAP systems.

Leveraging Google's world-leading AI/ML capabilities to optimize SAP data allows CPG companies to improve forecast accuracy, optimize marketing campaigns, and improve the reliability of supply chain and manufacturing operations.

## 03 Future-proof your business

Google Cloud enables flexible control and management of operations on a secure, scalable, and open infrastructure. Over time, hosting SAP on Google Cloud has been shown to reduce IT infrastructure costs by over 30% while also improving the efficiency of IT teams by 56%. Google Cloud's cost-effective infrastructure and reliable performance makes the average cloud operating cost to run SAP workloads 46% less than competing cloud solutions.<sup>7</sup>

Leading skincare brand [Rodan + Fields deployed SAP on Google Cloud](#), including all the company's websites and customer-facing platforms supported by [SAP Hybris](#) ecommerce, as well as its SAP-based ERP systems, including [SAP ERP Central Component \(ECC\)](#). At critical peak times, Rodan + Fields demonstrated an ability to scale their SAP environment 4X in minutes on Google Cloud. Google Cloud also offers greater flexibility. When the company launched in Japan, it needed to spin up more test environments. "It was very slow and cumbersome to scale with our previous platform provider, but it's been easy and efficient in Google Cloud," said Evan Wayne, Vice President of Information Technology at Rodan + Fields.

In addition to operational flexibility, Google Cloud offers significant security and availability improvements. IDC found that customers running SAP on Google Cloud experience 83% less unplanned downtime.<sup>7</sup>

Lastly, Google Cloud today runs on 100% sustainable energy and aims to run every cloud workload on carbon-free energy by 2030. This helps CPG companies contribute to their sustainability goals.



# Digital challenges and decision criteria

## Challenges to creating a digital enterprise

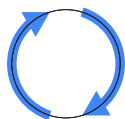
As CPG companies begin their digital journeys, they face a number of technical and business challenges that a cloud partner can help to address.



### Data management and quality

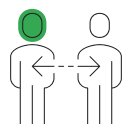
The need to efficiently manage and utilize data is growing at an exponential rate. When collecting and analyzing data across an entire enterprise and portfolio of brands, CPG companies are challenged to decide how best to turn it into business insights.

CPG companies must decide what data to bring together, and how to standardize and contextualize data across brands to drive insights from sources as varied as sales and marketing data to manufacturing floor data. Bringing together SAP data with data from manufacturing, marketing, and other functions can quickly become a data management challenge. It is often unstructured and disconnected, requiring cleanup and connection before any analytics can be performed.



### Change management

All enterprises are challenged to reskill their people to be ready and flexible to the changes of the workforce of the future. It is anticipated that by 2022, 54% of employees will require reskilling.<sup>8</sup> A successful transformation requires all members of an organization—from C-Suite executives to line-level operators on the plant floor—to increase their digital acumen in order to realize the full potential of newly implemented technologies.



### Vendor landscape and selection

How should a CPG company select a vendor to partner with on digital transformation? The variety of solutions in the marketplace can be overwhelming and CPG companies must be thorough in the selection of vendor partners. When considering cloud providers to host SAP workloads, native SAP integration and co-engineered support are both critical.





## Selecting the right vendor

When evaluating cloud platform providers, executives and decision-makers should account for the specific needs of their enterprise. CPG companies can use these criteria to help evaluate solution vendors:

### Data management and optimization

- Data management, governance, and handling services, plus the ability to support diverse data types from various sources.
- Potential to unlock insights by contextualizing and correlating data and insights across enterprise functions (e.g., sales, marketing, supply chain, manufacturing).

### Sustainability

- Commitment to lowering the carbon footprint of their customers.
- Carbon neutral operations.

### Platform security

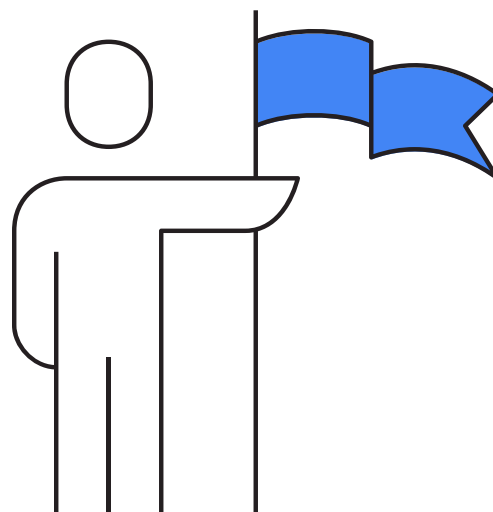
- Capacity to secure data and protect the enterprise from threats.
- Potential to protect the enterprise without inhibiting innovation and further solution development.

### Analytics capabilities

- Portfolio of analytics tools, technical expertise, prebuilt accelerators, and additional applications that accelerate development and enhance capabilities.
- Toolkit and expertise that will support and encourage innovation.
- Robust model training and deployment methodologies.

### Flexible integration across the enterprise

- Flexible integration across business functions and systems, enabling robust and pervasive data sharing.
- Partnerships with independent solution vendors for seamless integration.
- Ease of use and the ability to run alongside existing systems and new technologies that may be part of future initiatives across hybrid and multi-cloud environments.





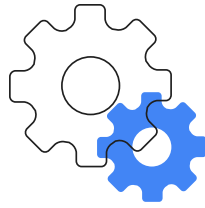
# Priority use cases for CPG

Drive key initiatives with SAP on Google Cloud



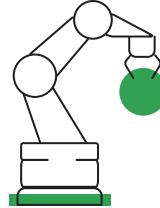
## Sales and marketing

- Demand forecasting
- Ecommerce and omnichannel modernization
- Trade promotions optimization
- Personalized product offerings



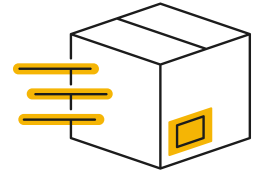
## Enterprise operations

- End to end business intelligence
- Automated enterprise-wide data collection
- Accelerated collaboration



## Manufacturing

- Visual inspection for quality control
- Production planning
- Predictive maintenance



## Product and supply chain

- Portfolio productivity optimization
- Real-time route optimization
- Sustainability tracking and ingredient optimization

Three use cases are driving significant value for CPG companies using best-of-breed cloud capabilities:

### 01: Trade promotion optimization

### 02: Demand forecasting

### 03: Personalized product offerings at scale

*Note: A previous white paper detailed the value for Google Cloud and SAP for manufacturers. That paper also highlighted how Google Cloud technologies help deliver yield optimization, predictive asset maintenance, and real-time quality inspection use cases. Refer to the [manufacturing white paper](#) for details on those use cases and further insight into Google Cloud for manufacturing.*

# 01

## Trade promotion optimization

### Summary

Trade promotion optimization (TPO) appends advanced analytics capabilities to traditional trade promotion management practices. Promotion planning and budgeting, promotion execution and accruals, settling claims and deductions, and post-event analysis can be optimized with analytics. Introducing advanced analytics allows for scenario optimization, promotion recommendations, and a more holistic view of constraints and other effects.<sup>9</sup> By combining SAP's Trade Promotion Management capabilities with the power of Google Cloud, CPG companies can begin to truly optimize trade promotions.

### Value proposition

Maximize ROI of trade promotion spend

- Reduce dependency on trade promotion and reduced trade promotion spend
- Increase sales and promotion volume

### How Google Cloud accomplishes this use case

By hosting SAP applications on Google Cloud, CPG companies can harness advanced analytics capabilities to drive targeted promotion outcomes.

#### ● Collect data

Google Cloud brings together historical sales and promotional data from SAP, as well as consumer data from Google marketing, search, and other Google data signals.

Apigee consolidates data from other disparate systems.

#### ● Build models to identify optimal trade promotion scenarios

Cloud Bigtable can store and manage massive amounts of maintenance data in a NoSQL database with low latency.

AI Platform, based on TensorFlow Enterprise, enables custom ML workflows for advanced use cases.

Cloud AutoML and custom AI solutions enable complex ML models.

#### ● Execute optimized promotions through SAP Trade Management on Google Cloud

#### ● Drive business insights with custom dashboards and reports

Looker can help users customize data visualizations and query data based on new inputs and added perspectives.

AppSheet allows users to create specific, use-case focused applications that address their individual business needs.

The combination of BigQuery ML, Looker, AppSheet, and Apigee delivers a powerful value-generating framework.

## 02 Demand forecasting

### Summary

While traditional forecasting focuses primarily on historical sales trends, demand forecasting improves accuracy by integrating other, new information into the process. Demand forecasting provides real-time insights into demand for products or channels through advanced analytics, incorporation of data from social, search, and recent consumer patterns and trends.

### Value proposition

- Improve demand forecast accuracy
- Increase responsiveness to consumer preference changes
- Reduce lag in forecasting
- Improve inventory management

### How Google Cloud accomplishes this use case

#### ● **Collect and store data from multiple sources**

Cloud Pub/Sub performs real-time data ingestion.

Apigee consolidates data by connecting previously disparate systems.

Cloud Dataflow processes and streams analytics on collected data.

Google Marketing Platform brings consumer data from Google marketing, search, and other Google data signals into Google Cloud.

#### ● **Develop and deploy demand forecasting models**

BigQuery creates analytical datasets.

Cloud Run enables the deployment of containerized analytics applications.

AI Platform Notebooks uses ML to create demand forecasting analytical models.

#### ● **Drive business insights with custom dashboards and reports**

Data Studio Visualization provides insights into the accuracy and efficacy of developed demand forecasting models.

Looker can help users customize data visualizations and query data based on new inputs and added perspectives.

AppSheet allows users to create specific, use-case focused applications that address their individual business needs.

The combination of BigQuery ML, Looker, AppSheet, and Apigee delivers a powerful value-generating framework.

# 03

## Personalized product offerings at scale

### Summary

In response to consumers demanding more personalized experiences, leading CPG companies are creating a 360-degree view of their customers across all channels. By understanding customers holistically, companies can incorporate trends and other insights into marketing efforts as well as future product development. This helps CPG companies develop new, relevant products, evolve existing products to changing preferences, and offer customers more connected experiences.

### Value proposition

- Improve competitiveness in the market
- Increase customer lifetime value
- Improve sales in new and existing channels

### How Google Cloud accomplishes this use case

#### ● Optimize and secure data in a trusted environment

Apigee consolidates data by connecting previously disparate systems.

Google Marketing Platform brings consumer data from Google marketing, search, and other Google data signals into Google Cloud.

Google Cloud enables the easy management and migration of on-prem data sources and third-party data.

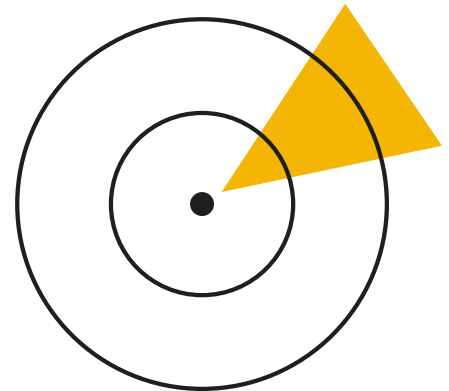
#### ● Innovate with connected products

The Google IoT core connects and manages IoT devices for millions of globally dispersed devices.

#### ● Enrich the consumer experience

BigQuery and TensorFlow enable analytical workflows to create a 360-degree customer view.

Looker and other visualization tools integrate data sets and analytics to help teams understand trends and conclusions.



# Why SAP on Google Cloud is the right choice for CPG

Google Cloud's CPG solution strategy accelerates digital transformation across the value chain.

Google Cloud is uniquely positioned to:

- **Provide industry-leading data and analytics capabilities.**

Google's suite of analytics offerings including Looker, BigQuery, and BigQuery ML are recognized as leaders by both Gartner's Magic Quadrants and The Forrester Wave.

Unify data from SAP, Google Cloud for Marketing, Ads, other enterprise systems, and external sources in order to uncover, analyze, and democratize insights.

- **Deliver the lower total cost of ownership (TCO) in the market – up to 30% lower compared to other hyper-scale public clouds.**

Hosting SAP on Google Cloud has been shown to reduce IT infrastructure costs by over 30% while also improving the efficiency of IT teams by 56%.<sup>7</sup>

Google Cloud's cost-effective infrastructure and reliable performance make the average cloud operating cost to run SAP workloads 46% less than competing cloud solutions.<sup>7</sup>

- **Future-proof SAP workloads with industry-leading up-time and five layers of Google-grade security, enhanced with AI.**

IDC found that customers running SAP on Google Cloud experience 83% less unplanned downtime.<sup>7</sup>

Google Cloud's own global network is the largest private network in the world and ensures low-latency, secure connections between users, data, and the cloud.

- **Run sustainably on the cleanest cloud.**

Google Cloud runs on 100% sustainable energy and aims to run every cloud workload on carbon-free energy by 2030.

- **Support organizations on their cloud migration journey as part of RISE with SAP.<sup>10</sup>**

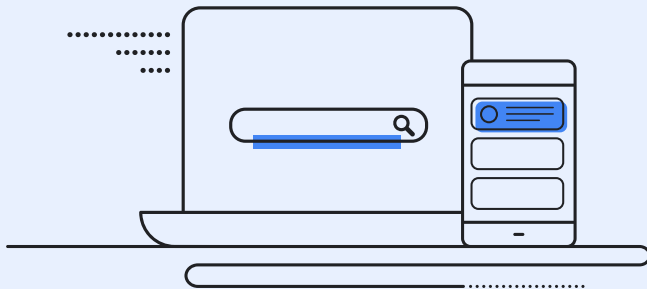
The initiative recognizes that enterprises need an easy path to the cloud, plus cloud providers and consulting partners who will help them achieve business objectives.

We are committed to making it simple for customers to move applications to the cloud, minimizing risk and cost, and creating fast time-to-value. We help customers extend the value of their SAP systems and data with cloud AI, ML, and analytics.

Google Cloud's robust partner ecosystem supports and enhances migration and operations.

## Seven of the top ten retail and CPG companies choose Google Cloud

For CPG companies running on SAP, Google Cloud provides strong capabilities to deliver intelligence across the business, as highlighted in this white paper with trade promotion optimization, demand forecasting, and personalized product offerings at scale. There are many more innovations to discover—take the next step to unlock real and lasting value for your business with Google Cloud.



Visit us online to  
learn more about  
[Google Cloud for CPG](#)  
and [SAP solutions](#).

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