

Live Your Best Brand Now

Deliver Unmatched Customer Experience, Risk Mitigation,
and Profit with Decision Intelligence



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Executive Summary

Customer expectations are evolving more quickly than ever, and it's becoming exponentially more difficult for consumer packaged goods (CPG) companies to meet those expectations with accuracy and speed. The number of decisions that must be made in a given day to address demand volatility, price pressures, supply chain challenges, and channel complexity is now too great for teams to keep up.

Historically, CPG companies have had to scramble to pull data together across multiple systems in order to manage priorities on an ad hoc basis, without a full picture of demand and supply. In this white paper, we share our perspective on how brands can better deliver what customers want by improving decision making. We unpack the common challenges facing CPG companies and show how Decision Intelligence and the Aera Decision Cloud™ allow brands to achieve the agility and responsiveness needed to deliver on these customer expectations.

The New Status Quo: Continuous Evolution

As a decision maker at a consumer packaged goods (CPG) company, you and your colleagues likely find yourselves in an hourly fight for market and wallet share. And, in today's fast-moving environment, making the right decisions at the moment of impact to address increasing demand volatility, price pressures, supply challenges, and channel complexity – across your growing portfolio – is often more than even the best team can manage. But failure to deliver means that your customers could turn to a competitor who delivers what they want, when they want it – and those lost customers may never look back.

Waves of disruption in CPG that started with the rise of e-commerce are now an ongoing storm of change. Amazon and other digital native retailers give customers an array of options for discovering and ordering products. With fewer barriers to entry in the CPG space, agile entrants have disrupted almost every product category, from food, to health and beauty, to pet care. The only way for CPG companies to keep pace is to continuously evolve to deliver what customers want, while also adjusting to the complex conditions that have become a daily reality in global supply chains.

CPG firms have invested heavily in digital transformation in the form of data lakes, visualization solutions, data science platforms and business analytics, data lakes, and other technologies with the hope of achieving greater agility. Even so, they continue to face business process and decision-making challenges. People still have to do the manual work of collating data, interpreting reports and dashboards, reviewing alerts, and running ad hoc analyses in order to come to a decision.

The Changing Pace, Scale, and Complexity of CPG Decision Making



- Solving mission-critical problems often requires accessing multiple systems and spreadsheets to diagnose and fix
- Processes organically evolve over time
- Knowledge is trapped in the heads of individuals and not documented
- To deliver what customers expect, CPG companies must move from an emphasis on tasks to a focus on decisions

It is possible for established companies to become just as responsive as their digital-native competitors – but a number of pain points act as roadblocks to this evolution. Decision Intelligence allows CPG companies to overcome these challenges, deliver on customer promises, and focus on the strategic decisions that help mitigate risk and ensure profitability.

It all starts with visibility.

Visibility is the lifeblood of modern business, but bad or missing data can prevent companies from having the necessary context to make the right decisions. Historical, operational, and strategic data makes possible the business analytics and reporting capabilities that are table stakes for success today.

CPG companies rely on an array of systems for day-to-day operations – in many cases, multiple ERP instances, warehouse management systems (WMS), transportation management systems (TMS), and more. At established businesses, this landscape can be a tangle of siloed, difficult-to-access systems, difficult or impossible to harmonize with vital data from suppliers and other partners.

While organizations have attempted to leverage data lakes and modern BI tools to make sense of this data, the reality in most cases is that there is still rarely a single source of truth – instead, companies have seen a proliferation of disconnected reports and dashboards, sitting on a data swamp that is unwieldy to manage and increasingly expensive to maintain.

Also, there are specific challenges facing complex businesses that either grew their technology stacks over time as new solutions became available or that expanded more rapidly through mergers and acquisitions. Legacy on-premise systems and customized solutions require manual work to update and maintain, yet can be incredibly difficult to replace. At the same time, growing companies face challenges not only in onboarding new brands and products into their portfolios and sales/distribution channels, but in assimilating the acquired company's data and technology infrastructure – multiplying all of the difficulties mentioned above.

Suppliers and sourcing challenges

CPG companies need day-to-day visibility to know whether suppliers will deliver on time and in full so they can, in turn, meet commitments to end customers. From unforeseen demand for key ingredients causing a shortage, to political tensions impacting global trade, changes in raw materials prices or availability are a major threat to CPG manufacturers in particular.

Traditional supplier scorecarding and other reactive methods are no longer enough to maintain competitive advantage. The level of fragmentation and complexity in supplier bases, combined with the increased volatility in supply discussed above, makes getting the right ingredient, in the right quantity, to the right place, at the right time, and for the right price an incredibly complex and difficult-to-manage process. Decision Intelligence gives companies the ability not only to measure supplier performance in real time, but also to adjust their supplier mix based on that information to avoid sourcing challenges.

Order management and fulfillment

Order management is a critical area of concern in the face of ongoing disruptions – raw materials shortages, logistics issues, labor shortages, and more – that have impacted both manufacturing and fulfillment. Retail partners also have increasing expectations for flexibility and on-time, in-full (OTIF) delivery, with some major retailers tightening their requirements and increasing fines for failure to deliver.

In a volatile and uncertain market, companies must consider how to handle smaller-than-planned production yields, swings in ingredient prices that affect product cost, or targeted changes in product mix that impact order management process or strategy.

All of these issues mentioned above make it increasingly complex to (A) make customer commitments; (B) track performance against those commitments (and provide alternatives, if necessary); and (C) optimally and dynamically allocate short supply. And, once a decision is made, teams need to be able to track the outcomes of these decisions in order to learn and adjust in the future¹.

Meanwhile, the growth of new fulfillment channels has only made these decisions more complex. Omnichannel retail continues to evolve, and companies are challenged to position products with the options shoppers want, in the channels they want, and to deliver them as quickly and reliably as possible. Unless they can respond in time to changing demand signals and trends, companies will find it increasingly hard to balance established omnichannel and direct-to-consumer retailing with new options – for example, rapid-delivery disruptors like Instacart.

Portfolio management

Consumers are seeking more personalization than ever before, their expectations fueled by the entrance of digital-native and niche brands with lower barriers to entry. In addition to offering brand extensions and seasonal variations, CPG companies are acquiring manufacturers and labels to help deliver what customers demand – be it microbrews, fast-fashion, or other trend-inspired products.

Most organizations still use crude segmentation approaches to determine where to focus their time and attention (such as ABC segmentation) because of limited capacity on the part of teams from brand management all the way through to procurement). As a result, products – or sometimes entire brands – don't get the attention or careful management they need in order to thrive in their respective consumer niches. Even popular or well-known products with fiercely-loyal customers can find themselves on the “SKU rationalization” chopping block.

Decision Intelligence is the answer.

These sources of volatility have led to a dramatic spike in the volume, velocity, and complexity of decisions CPG companies must make each day. Companies could achieve much better results with more rigorous analysis, by considering more granular details in decision making, and by having full visibility of data from across the enterprise. Still other more decisions go unmade because there isn't enough decision-making capacity to address them all.

Scaling decision making across the enterprise requires a new approach: a digital brain that operates in real time, continuously learning and capable of automating routine decisions.

Here's how Decision Intelligence – the digitization, augmentation, and automation of decision making across enterprise-wide business processes – transforms five key areas for CPG companies.

¹For a more in-depth look at order fulfillment challenges, watch our on-demand webinar, “Regaining Control of Order Fulfillment Processes with Decision Intelligence” (2022)

Five CPG Decisions that Demand Agility – and How Decision Intelligence Delivers Value

Order prioritization and ATP prediction

The challenge: Any delay or unforeseen factor can impact available-to-promise (ATP) calculations. Also, many technology solutions use a very narrow horizon of data sourced from the ERP system, and these ATP answers often implement simple allocation rules and take supply as a given – ignoring complex constraints that organizations often face, and leaving the hard work of solving for customer and supply constraints to the supply chain team.

How Decision Intelligence delivers value:

- **Visibility across the enterprise** – By gathering data from finance, transportation, warehouse management, promotion planning, and more, Decision Intelligence helps companies stop planning in isolation.
- **ATP prediction** – With manufacturing more supply constrained than ever, order prioritization and ATP prediction are crucial. However, the solutions used by most CPG companies are geared toward ATP determination more than ATP prediction, using static master data to determine when product will be available without considering operational data or current conditions. With Decision Intelligence, ATP calculations can consider inventory that's in transit or included in the manufacturing plan. Also, companies can apply predictive analytics to product availability, and deliver recommendations to augment or fully automate order prioritization, keeping their commitments to customers.

Sales & Operations Execution – Balancing inventory

The challenge: Teams that manage CPG supply chains are in constant firefighting mode. These “fires” can take many forms, from a TikTok influencer whose video drives a massive, unexpected spike in demand for a new product in an emerging market, to slow seasonal sales that leave excess inventory in DCs with a pending expiration date. In many cases, teams are forced to triage and apply 80/20 rules just to focus on the most pressing issues, leaving opportunities for savings or increased revenue on the table.

In addition, key inventory parameters such as safety stock are often based on master data that is stale, inaccurate, or incomplete. This causes inventory models or inventory management tools to give inaccurate information. Manually correcting these issues takes up more of the team's limited time.

How Decision Intelligence delivers value:

- **End-to-end inventory visibility** – Decision Intelligence enables CPG companies to integrate data from multiple systems and get an end-to-end view of inventory, based not only on information from the ERP system, but from the WMS, TMS, and third parties such as VMI.
- **Balancing supply and demand** – Decision Intelligence makes it possible to manage inventory levels for each product and location in a network on a daily basis, delivering timely recommendations to address imbalances. For example, the platform may suggest reallocating orders to different DCs, transferring inventory between locations, expediting inbound transfers, or making small adjustments to production schedules.

- **A virtual colleague for inventory decisions** – Decision Intelligence lets you digitize how inventory decisions are made, relieving stress on teams and streamlining day-to-day workflows. From updating and predicting dynamic master data parameters such as lead times, to evaluating trade-offs when adjusting safety stock levels, Aera can automate decision-making processes so that CPG companies can micromanage inventories for even the smallest of products in the portfolio.

Procurement challenges

The challenge: In today's volatile environment, strategic sourcing and contracts can become obsolete almost as soon as they're created. Because procurement is a very compliance-focused area of the organization, it can be difficult for teams to adjust when market conditions change or threats to the supply chain emerge. It's impossible to re-run a strategic sourcing process and get new contracts in place every time just to respond to these changing realities.

Another common challenge is how to respond when a critical supplier's performance degrades, resulting in the threat of production lines going down, orders being left unfulfilled, and fines or other negative impacts on the business.

Materials shortages are another crucial challenge. For instance, if a CPG company relies on a key raw material at 40 manufacturing plants which is suddenly in short supply, the procurement team needs visibility to know where to prioritize supply to the area(s) most valuable to the company.

How Decision Intelligence delivers value:

- **Supply visibility:** Decision Intelligence breaks down the silos and gives procurement teams visibility by drawing on third-party data sources and information from suppliers, warehouse management systems, logistics, and more – allowing companies to mitigate potential problems by recommending adjustments to stock and/or order promise dates.
- **Optimize supplier mix in real time:** Decision Intelligence allows companies to adjust to changes in supplier performance, pricing, or other challenges by making recommendations to supplier mix, payment terms, and more.

Marketing and promotion optimization

The challenge: CPG companies invest billions each year in marketing and trade promotions – advertising, discounts, rebates, and other incentives – but the majority of these efforts are planned months in advance, with only periodic reviews and adjustments. Updated inventory information or changing market trends could impact performance, but CPG firms lack the agility to revise underperforming promotions, redirect advertising spend, or further capitalize on successful initiatives.

How Decision Intelligence delivers value:

- **Increased visibility for advertising and promotion planning** – Decision Intelligence connects siloed systems and analyzes data from across the enterprise. Decision Intelligence brings visibility to planning and execution by analyzing and harmonizing information from ERP, CRM, demand forecasting, and supply chain applications, as well POS systems at retail partners.

- **Promotion optimization at scale** – Decision Intelligence lets CPG companies adapt swiftly when conditions change – for instance, by recommending adjustments to promotions based on highly-granular variables, and by pinpointing hidden factors that boost profitability or cannibalize revenue from other products.

Revenue Management

The challenge: Revenue management teams are tasked with making sure the right products are delivered through the right channels. However, it can be difficult to track compliance with pricing rules and channel conflicts. Internal competition (i.e. different teams selling into each other's markets) or sales that fall below minimum pricing floors are a significant threat to achieving revenue targets.

How Decision Intelligence delivers value:

- **Trade flow monitoring** – By aggregating data across the enterprise and the supply chain, Decision Intelligence enables organizations to track, quantify, and address unexpected flows between channels or geographies. Doing so allows CPG companies to trace inventory on sale in a region back to the original distributor, identifying instances of price arbitrage between regions and quantifying the business impact of those situations.
- **Floor price governance** – Decision Intelligence automates tracking of pricing data, proactively identifying issues with prices before orders are confirmed rather than reacting after the fact. The platform applies all of the pricing, discounting, and other net price impact rules to incoming orders, then assesses if an issue needs to be addressed in advance of the order being confirmed, avoiding price leakage issues at a later time.

The Decision Intelligence Advantage

Gartner® 2022 executive guide to Decision Intelligence notes that “By 2023, more than 33% of large organizations will have analysts practicing Decision Intelligence (including decision modeling)” – with business benefits that begin from more accurate, personalized, automated, and composable decisions which “are potentially more consistent, and repeatable,” especially on the operational level.

Aera Decision Cloud is the Decision Intelligence platform that digitizes, augments, and automates decision making across the entire organization. It's the platform that delivers the intelligence, velocity, and scale required for CPG companies to achieve business agility in a new digital world of continuous disruption. Aera Decision Cloud goes beyond simple reports and KPIs, giving actionable and impact-oriented recommendations that optimize business objectives against complex, interrelated constraints and real-time data. It becomes a virtual member of your team, acting like a trained digital analyst delivering well-researched and informed business recommendations that can be executed on your behalf.

²Pieter den Hamer, “Top Trends in Decision Intelligence 2022.” Gartner Research, 2021.

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Decision Intelligence Delivers Results

One global **FMCG manufacturer** specializing in foods, health and beauty, and home care products deployed Aera Decision Cloud to augment and automate a range of critical supply chain decisions. With our patented data crawlers and cognitive technologies to break their data out of silos, their planners gained more time to collaborate and innovate.

Today, this manufacturer benefits from continuous planning and modeling of decision outcomes and the ability to automate the long tail of decisions their team had previously been able to address. In a single month, the customer reported that Aera made over 12,000 recommendations, 74% of which were automatically accepted. They calculated that it would have taken over 40 man-years of staff time to make all of those decisions.

At another **CPG company** specializing in confectionery, food, and pet care products, Decision Intelligence helped customer service levels and cash on hand by optimizing inventory and reducing supply chain costs – all while maintaining growth.

The company was able to automatically postpone millions worth of unnecessary purchases of direct materials. They also fully automated rebalancing of finished goods across the network to mitigate revenue at risk. And they were able to make inventory reductions as the result of automatic safety-stock level adjustments. Finally, the company was able to realize logistics cost savings as a result of dynamic direct delivery optimization. Aera provides this CPG company 40,000 recommendations per month, 60% of which are auto-approved.

“Decision Intelligence is a very important component if we are to support the vision for our business to move from a lean supply chain to a more agile supply chain.”

– Director of digital technologies and supply chain transformation lead, Global CPG company

Why ‘Wait and See’ is impossible in today’s marketplace

We’ve shown how consumer trends and the growing complexity of CPG manufacturing has brought us to a point where even the most dedicated, knowledgeable teams of executives, planners, and business analysts cannot keep up. Even if every team had every data point needed to make every possible decision each day, no team is big enough to process all those insights or address those decisions.

Decision Intelligence is the next step in the evolution of business decision making. Aera enables this evolution in CPG manufacturing, making it possible to keep pace with the volume and speed required to be competitive – and give customers everything they’ve come to expect from your brands, products, and company.

About the Company

Aera Technology is the Decision Intelligence company that makes business agility happen. We deliver a cloud platform that integrates with your existing systems to make and execute business decisions in real time. In the era of digital acceleration, Aera helps enterprises around the world transform how they respond to the ever-changing environment. For more information, visit aeratechnology.com.

Understand.

Continuously crawls enterprise systems and provides end-to-end visibility

Secure, low impact, and programmable Crawlers

Internet-scale data management and processing

Data indexed for search

Recommend.

Suggests ways to improve financial and operational performance

Opportunity and risk analytics

Analysis at any granularity

Predict.

Leverages real-time data and AI to accurately predict business outcomes, risks, and opportunities

Embedded AI and machine learning

Act.

Proactively engages relevant users and drives the execution of their decisions

Autonomously takes action

Pre-defined process library

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