

AI Strategies for Food Manufacturing:

# How vision, Alignment and New Approaches to Testing Can Accelerate Competitive Advantage

By Matt Talbot



## *The power of AI data processing, combined with human problem-solving and creativity, can lead to amazing outcomes.*

Artificial intelligence enables machines to process vast amounts of data quickly and in doing so, surface valuable insight into quality. In the context of food processing, handling, and packaging, there are numerous points across the value chain where AI can drive meaningful business change and remove pressure on humans in the system. As with any tech investment, AI is best deployed in areas where it can reduce risk significantly or increase profits. Industry leaders at [Kraft Heinz](#), [Pepsi-Co](#), [Coca-Cola](#), [Danone](#) and [ABInBev](#) have embraced AI and machine learning to increase safety, streamline operations, reduce labor, and increase innovation.

A [2017 Boston Consulting Group joint study with Google](#) analyzed the value of adopting AI and advanced analytics in consumer packaged goods, finding that “by using AI and advanced analytics at scale, CPG companies can generate more than 10% revenue growth through more predictive demand forecasting, more relevant local assortments, personalized consumer services and experiences, optimized marketing and promotion ROI, and faster innovation cycles.”



With its ability to process vast amounts of data quickly, AI enables enterprises to analyze information faster and more accurately than humans can. However, where AI comes up short is in its ability to truly problem-solve, innovate, and make critical decisions. AI will impact work and the workplace on a number of levels, and perhaps most immediately by freeing humans to do less work about work (gathering, cleansing, organizing information) and spend more time solving difficult problems creatively. In the context of food manufacturing, AI can be used to combine data sets in the supply chain and manufacturing process to reveal trends or issues to inform leaders and the critical decisions they make. The power of AI data processing, combined with human problem-solving and creativity, can lead to amazing outcomes.

For example, let's say a baby food manufacturer is dealing with product quality issues that have been reported by consumers. A food manufacturer working with many upstream suppliers could use AI to determine correlations between reported quality issues using item batch numbers and data tied to suppliers. This work could be done by a human, but it may take days or weeks of effort. Instead, AI can be used to analyze suppliers with the highest likelihood of presenting the quality issue. From there, humans can reach out to their contacts in question or go conduct reviews and site visits, all within minutes or hours after getting this information from AI. AI can optimize the QA process for all involved, allowing humans to spend less time sifting through and correlating critical data related to quality and consumer health.

On the risk side, any process that involves food presents an opportunity to increase safety through the reduction of food safety incidents. AI can be applied to analyze data and pinpoint potential issues before they impact consumers. As a result, organizations can proactively identify risks instead of playing defense once issues have surfaced. On the

profitability side, documentation of food safety protocol compliance can represent a significant cost center for manufacturers. By using intelligent technology, organizations can better leverage their human capital to drive labor savings in administrative and reporting functions.

This type of technology has reached the manufacturing mainstream. The multinational beverage/brewing corporation ABInBev is using AI to [listen to motors](#) in its 400 breweries and signal when one is showing signs of failure, an issue that can effectively cripple the company's supply chain in a given region. The incredible efficiencies we'll realize in the coming years by relying increasingly on Internet of Things sensors, I believe, will be nothing short of revolutionary.

When deploying AI or machine learning, enterprises first must be clear about their business objectives before implementing the technology. It's easy to get swept away with new tech, and if the buying decision is not grounded in clear strategy with alignment across the relevant lines of business, the implementation is likely to fail. Successful programs require a willingness to be experimental--starting projects with AI and ML on a small scale. This creates controlled environments where different approaches can be tested for their efficacy. Many large CPG brands are wrestling with these steps today; the Boston Consulting Group has [outlined recommendations](#) to streamline change management and ensure alignment around AI to successfully reap the benefits it can unlock. Finally, many businesses underestimate the power of the training that's required to galvanize front end users that lead to successful digital transformation programs. Only after you have proven an AI implementation on a small scale, supported by excellent training for all workers that will use that system, can it be effectively deployed to a broader user group in the organization.

In the end, any organization that can use information to move faster, reduce risk, and increase profits will build a durable competitive advantage. Technology

cannot do this alone, but combined with a sound business strategy and a thoughtful implementation process, AI can help food manufacturers stay ahead of issues, better utilize their human capital, and ultimately make better products for their consumers. The brands who can drive strategy and alignment around AI's role in their corporate roadmap will come out ahead, while those that do not will likely struggle to remain competitive.



## About The Author:

**Matt Talbot** leads strategy, finance, and innovation for GoSpotCheck and has a BS from Bucknell University. He is a former corporate finance leader at Johnson & Johnson and was a leading figure in the Boulder Techstars accelerator. Matt co-founded GoSpotCheck in 2011 to free frontline workers from the mundane and open up new worlds of possibility and prosperity, powered by the people. He seeks to build great products for the doers of the world, so they can do great work. 200+ enterprise brands in 70 countries across 6 continents use GoSpotCheck's AI, Machine Learning, and execution management cloud software, including world-class food and beverage manufacturers **Danone, PepsiCo, Coca-Cola, Frito Lay, Perfect Bar, Kind Bar, and Leprino Cheese**. To discuss AI strategy and testing for your manufacturing company, contact: [Matt@gospotcheck.com](mailto:Matt@gospotcheck.com)

