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Intelligent Choice Architectures in the Retail and Consumer Packaged Goods Sectors

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Intelligent choice architectures are a natural next step to providing the adaptive intelligence necessary to navigate increasingly complex retail and CPG business environments.

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Better choices enable better decisions. Choices are the raw material of decision-making; without diverse, detailed, and high-quality options, even the best decision-making processes underperform. Our research finds that using artificial intelligence to generate high-quality choices facilitates better decisions that measurably improve outcomes. For retailers and consumer packaged goods (CPG) companies looking to deploy AI enterprise-wide — to innovate, cut costs, or increase agility — AI's value shifts from improving business processes to improving the quality of choices for better decision-making. In short, more intelligent choices at scale are game changers for organizations.

Much as architectural design shapes how people move through and experience physical spaces, decision architectures shape how people navigate decision environments. As AI agents are adopted at scale in the enterprise, these decision environments require a new design. Drawing partly on a behavioral economics mechanism suggested by Nobel Prize-winning economist Richard Thaler and legal scholar Cass Sunstein, our pragmatic approach to intelligent choice architectures (ICAs) demonstrates that combining sophisticated data synthesis, pattern recognition, and human insights can yield better decision options that align with, and advance, corporate objectives.[1]

The term *choice architecture* refers to the practice of influencing a decision by intentionally "organizing the context in which people make decisions."[2] In contrast, intelligent choice architectures (ICAs) use AI to shape how people encounter, evaluate, and decide on options. ICAs can organize and personalize decision-making environments, empowering decision makers with more robust and tailored choices that increase the odds of better decisions.

Intelligent Choice Architectures

Intelligent choice architectures (ICAs) are dynamic systems that combine generative and predictive AI capabilities to create, refine, and present choices for human decision makers. ICAs actively generate novel possibilities, learn from outcomes, seek information, and influence the domain of available choices for decision makers.

We've seen organizations like Walmart and French spirits company Pernod Ricard enacting ICAs at scale. Their leaders use AI to help generate better choices for better outcomes in domains ranging from human capital investment and talent development to marketing campaign design and customer engagement.

Consider Walmart, the world's largest retailer and retail employer, as an example of this shift in action. For a company with a global workforce exceeding 2.1 million, identifying and developing talent within nonmanagerial roles presents a complex challenge. Walmart's People team uses an internal generative AI tool built on an AI-driven talent architecture to extract and classify skills required for jobs or projects, or that associates have learned from training. This tool enables Walmart to operate as a skills-based organization and a people-led, tech-powered retailer. By tapping into various data sources, it connects employees with growth and development opportunities, surfaces new and different career opportunities, and ensures that talent development aligns with the company's overall goals.

This power to reshape decision environments extends beyond talent management to creative marketing domains, as seen in Pernod Ricard's innovative AI deployments. Historically, Pernod Ricard's creative campaigns required months of lengthy testing and refinement processes, with final testing phases requiring significant resources and review. The company now uses ICAs to test creative designs earlier in the campaign development process, enabling swift testing, refinement, and personalization of content. Rather than placing bets on fully fledged concepts, marketing and sales teams now test and refine multiple options, accelerating time to market at lower cost and with greater agility. According to chief digital officer Pierre-Yves Calloc'h, "Instead of doing three pieces for three audiences, you could do 20 pieces for 20 audiences which are more granular." What's more, these preliminary campaign options enable creatives to learn earlier and faster.

Delivering Actionable Insights

Integrating intelligent choice architectures into workflows can extend into daily operations. For example, Walmart's employee learning systems, enhanced by AI-powered tools, help associates better understand their options to make more educated choices. Now, when associates log in between 9 and 11 a.m., they may see nano-learning content about how to complete price changes. Between 2 and 3 p.m., they may see information about how to deposit excess cash. The content has been curated based on the learning and browsing behaviors of workers with similar job profiles. When customers give negative reviews on restroom cleanliness, cleaning-related learning content will be recommended to maintenance associates and team leads. Associates don't need to decide where to go for advice, what content is salient, or how to problem-solve. These systems don't merely provide answers: They enable associates to make their own decisions more quickly, from a wider array of curated options.

Real-time, actionable insights are just the beginning: Intelligent choice architectures also enable retailers to both anticipate and address major challenges in turnover, customer personalization, and supply chain management. Traditional choice architectures might support product placement decisions in valuable in-store aisles, nudging consumers toward preferred products at, say, eye level. ICAs, in contrast, significantly improve placement options using algorithmic analyses of manufacturers' willingness to pay for placement, expected consumer demand, and accessibility considerations (such as the height of placement),

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among other factors. Over time, purchase patterns, as well as placement and pricing decisions, can be incorporated back into the ICA so that it learns to improve placement options and even make inventory recommendations.

Pricing is another area ripe for ICA applications. A large beverage company developed an intelligent choice architecture to present pricing and promotion options to sales leaders, along with related projections on sales, volume, and profitability. The ICA AI agent was able to generate automated communications for sales leaders to present to retailers, based on options the sales leaders selected. (See "Appendix: ICAs Transform the Decision Environment" for more examples.)

Reimagining Experiences and Rethinking Decisions Rights

Ben Peterson, Walmart's vice president of People Product & Design, envisions a future where ICAs allow retailers to personalize the employee experience much as they do the customer experience. "The best organizations five years from now will have hyper-personalized experiences because we're going to have more data than we've ever had before," he says.

For Pernod Ricard, the rise of ICAs has prompted a reevaluation of decision rights across the company. When Calloc'h first experimented with AI for digital strategy, his team launched a roles reassessment around value creation contributions. Intelligent choice architectures now explicitly and algorithmically empower workers with broader arrays of informed choices, enabling departments like finance to approach scenario planning with more creative options.

The use of ICAs at scale raises considerations around whether — or when — AI agents should be allowed to make decisions on behalf of human principals, and when they should remain in their role as architects of decision environments. In Peterson's words, "We believe that our people will fundamentally make the difference, not only now but in the future. We want to build technology that enables and empowers them." Even so, as ICA agents learn to make better decisions than their human counterparts in a growing number of use cases, such as revenue forecasting, pricing, and inventory management, decision rights conflicts become unavoidable. At scale, governance of decision environments becomes intertwined with decision rights for individuals and machines.

Building Intelligent Choice Architectures

Leaders seeking to take advantage of ICAs can begin by exploring and embracing five primary practices that underpin the effective development and application of ICAs.

MEASURING AND ASSESSING BETTER CHOICES WITH IMPROVED DECISIONS: Leaders can pilot smarter choice-decision prototypes by selecting one high-stakes decision process (e.g., store associate promotion or inventory positioning) and tracking both the refined choice sets and the resulting decision outcomes. The key metric isn't simply a greater number of options but the extent to which better choices lead to demonstrably better outcomes. Retailers can use AI to generate options but should also measure success based on decision improvements.

CREATING FEEDBACK LOOPS BETWEEN OPTIONS AND OUTCOMES: Leaders can deploy choice-outcome capture processes for every major decision. This involves documenting "These are the options we considered," "These are the decisions we made and why we made them," and, crucially, "This is the measurable improvement this enhanced choice set enabled." This creates a data set that explicitly links expanded choice to improved decisions and can also become a training set.

CAPTURING DATA THAT LINKS BETTER CHOICES TO BETTER DECISIONS: Leaders can institute a "3x3 rule," which requires that each significant decision has three viable options and three clear outcome metrics (to measure decision quality). AI helps generate options, but humans must articulate and evaluate how and whether better choices will drive better decisions. Retailers can start with merchandising decisions and begin analyzing the connection between the quality of choices, the decisions that were made, and the resulting outcomes (e.g., revenues).

ENSURING THAT AI GENERATES CHOICES THAT ENHANCE DECISION OUTCOMES: Leaders can run choice-decision experiments, such as fortnightly A/B tests, to compare quality differentials in outcomes between decision-making with traditional processes versus AI-enhanced choice sets. Leaders should focus on decisions where both the choice sets and decision quality can be measured clearly, like promotion effectiveness or labor scheduling efficiency.

Three Key Takeaways

Intelligent choice architectures can increase the speed and effectiveness of decisions across omnichannel offerings, supply chains, and media networks.

1. ICAs can enable smarter, adaptive omnichannel experiences. Customers expect consistency and personalization across physical and digital touch points. Intelligent choice architectures can act as the backbone of these experiences by dynamically generating and refining customer options based on their preferences, behavior, and context. For example, ICAs could help retailers identify the best promotional offers, product recommendations, or inventory solutions in real time, accelerating time to decision.

Insight: ICAs can redefine omnichannel strategies by tracking customer behavior and actively curating personalized experiences that adapt and evolve based on real-time data and customer feedback.

2. ICAs can transform supply chain efficiency and sustainability through better choices. Intelligent choice architectures can suggest optimal routes, sourcing options, or fulfillment strategies that balance cost, speed, and environmental impact. Instead of merely responding to supply chain inefficiencies, ICAs could simulate potential improvements, helping decision makers choose the most sustainable and effective pathways for operational success.

Insight: ICAs empower supply chains to go beyond automation by enabling proactive and sustainability-conscious decision-making that aligns operational efficiency with environmental goals.

3. ICAs can augment retail media networks. The rise of retail media networks powered by AI creates new opportunities for ICAs to optimize advertising strategies. These ICA agents can dynamically generate advertising choices tailored to specific customer segments and adjust campaigns based on performance data. By aligning advertising spending with measurable outcomes, intelligent choice architectures can ensure that marketing investments drive engagement and ROI while enhancing customer relevance.

Insight: ICAs can unlock the full potential of retail media networks by automating and optimizing the generation of high-performing, customer-centric advertising options, ensuring better alignment with strategic goals and revenue streams.

Overall reflection: Intelligent choice architectures are a natural next step to providing the adaptive intelligence necessary to navigate increasingly complex and fast-changing retail and CPG business environments. ICAs can accelerate decision-making within specific domains like omnichannel personalization and supply chain sustainability.

Better Choices to Address CPG's and Retail's Biggest Challenges

At Walmart, Pernod Ricard, and others in the retail and CPG sectors, we're witnessing one of the most powerful applications of AI: providing individuals and teams with better options that will help them make better decisions, for themselves and their businesses. These intelligent systems and agents don't just support better decisions — they inspire them.

Intelligent choice architectures can help retailers and CPG companies address some of their biggest challenges: employee turnover, training, and engagement; inventory and supply chain management; changes in consumer behavior; the delivery of personalized customer and employee experiences; the ability to attract and retain customers as brand loyalty withers; and the ability to anticipate market trends that have yet to emerge. For new product development, for example, ICA AI agents can anticipate and offer options to preemptively address new disruptors, design promotion options based on sophisticated analyses of market trends, and tailor campaigns to different segments.

Appendix:
ICAs Transform the Decision Environment

The table below outlines the capabilities of intelligent choice architectures to change decision environments.

Intelligent Choice Architecture (ICA) Capabilities	How ICA Capabilities Change Decision Environments
Elevating Decision Quality Through Expanded Choice Sets	ICAs bring a wider array of high-quality, contextually relevant choices to the forefront. Unlike traditional decision tools, which often present static or limited options, ICAs dynamically generate new alternatives based on evolving data patterns and contextual insights. This expansion means that decision makers are not confined to conventional or habitual choices; instead, they can consider innovative options that may have been previously hidden or overlooked. This boosts the quality of decisions by ensuring that people's choices reflect a more comprehensive understanding of the decision context.
Anticipating Outcomes With Predictive Foresight	By integrating predictive modeling, ICAs provide decision makers with insights into potential outcomes for each option in real time. This anticipatory capacity helps decision makers weigh trade-offs and risks more effectively. For example, a retail manager assessing inventory decisions might see not only the immediate costs but also the projected downstream impacts on sales, supply chain dependencies, and seasonal trends. This predictive foresight helps decision makers align their choices with longer-term strategic goals rather than just short-term gains.
Adapting Choices Through Continuous Learning and Feedback	ICAs learn from previous outcomes, continuously refining their own architecture based on new data and feedback. This means that decision environments are not static; they evolve and improve over time, becoming more aligned with organizational goals and individual decision makers' preferences. In a talent management scenario, for instance, an intelligent choice architecture might identify patterns in employee performance and turnover to adjust its recommendations for promotions, training, or transfers. This adaptability ensures that the system remains relevant and valuable as situations and objectives shift.
Enhancing Decision Confidence by Revealing Hidden Interconnections	ICAs expose the interdependencies between different choices, making it easier for decision makers to understand how one choice impacts others across the organization. This interconnected view is particularly valuable in complex environments where decisions in one area can have cascading effects in others. For example, a marketing manager at a global retailer like Pernod Ricard could see how adjustments to campaign targeting affect inventory needs, distribution channels, and customer engagement. By making these connections transparent, ICAs help decision makers feel more confident and informed since they can see the broader implications of their choices.

Intelligent Choice Architecture (ICA) Capabilities	How ICA Capabilities Change Decision Environments
Decentralizing Decision-Making With Tailored Choice Architectures	By providing context-specific guidance directly to individuals at all levels, not just top leaders, and tailoring decision environments to the needs of different roles, intelligent choice architectures enable more agile and decentralized decision-making across the organization.
Reducing Cognitive Load by Streamlining Complex Information	ICAs filter and prioritize information, presenting decision makers with the most relevant data and choices, which minimizes cognitive overload. Rather than wading through endless reports or raw data, decision makers receive streamlined insights and summaries that highlight essential patterns, anomalies, and recommended actions. For example, in supply chain management, an intelligent choice architecture could surface key inventory adjustments or supplier choices based on real-time demand fluctuations and historical trends, sparing managers from unnecessary complexity. By simplifying complex information, ICAs allow decision makers to focus their attention on critical decisions with clarity and confidence, improving both speed and accuracy in decision-making.
Personalizing and Interacting With Decision-Making Environments	ICAs create an interactive, engaging, and highly customized environment that adapts to each decision maker's preferences, needs, and goals. Rather than offering a one-size-fits-all interface, these architectures adjust dynamically, using user interactions and feedback to shape how information and options are presented. For instance, a retail executive might prioritize metrics like customer lifetime value or churn predictions, while a store manager may need insights on daily inventory and staffing. ICAs can personalize dashboards and recommendations accordingly, making interactions feel more intuitive and responsive. Additionally, intelligent choice architectures can incorporate interactive tools like what-if scenarios, simulations, and decision trees, enabling decision makers to explore potential outcomes in real time and test various options before committing to a course of action. This interactive engagement not only makes the decision process more enjoyable but also boosts confidence, since users can see the immediate effects of adjustments and tailor their decision pathways to better align with strategic priorities.

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