2025 State of Distribution Technology: A Turning Point

By Jonathan Bein, Ph.D.

DISTRIBUTION STRATEGY GROUP

AI has redefined how distributors work. The tools are here. The impact is real, and the urgency to adopt is now. Unlike ecommerce, which added a new channel and held the promise of transformation for distributors, AI is already delivering. AI is providing 20% to 25% efficiency improvements in customer service. By 2030, those gains could reach 60%. And distributors could see 30% to 40% improvements in sales, warehouse and logistics. The distributors who act today will win on efficiency and customer experience.

This year's State of Distribution Technology report shows that AI is making a difference across distributors' functional areas, including sales, marketing, customer service, operations and supply chain management.

While some technologies are still in early adoption due to cost and complexity, others are delivering immediate ROI.
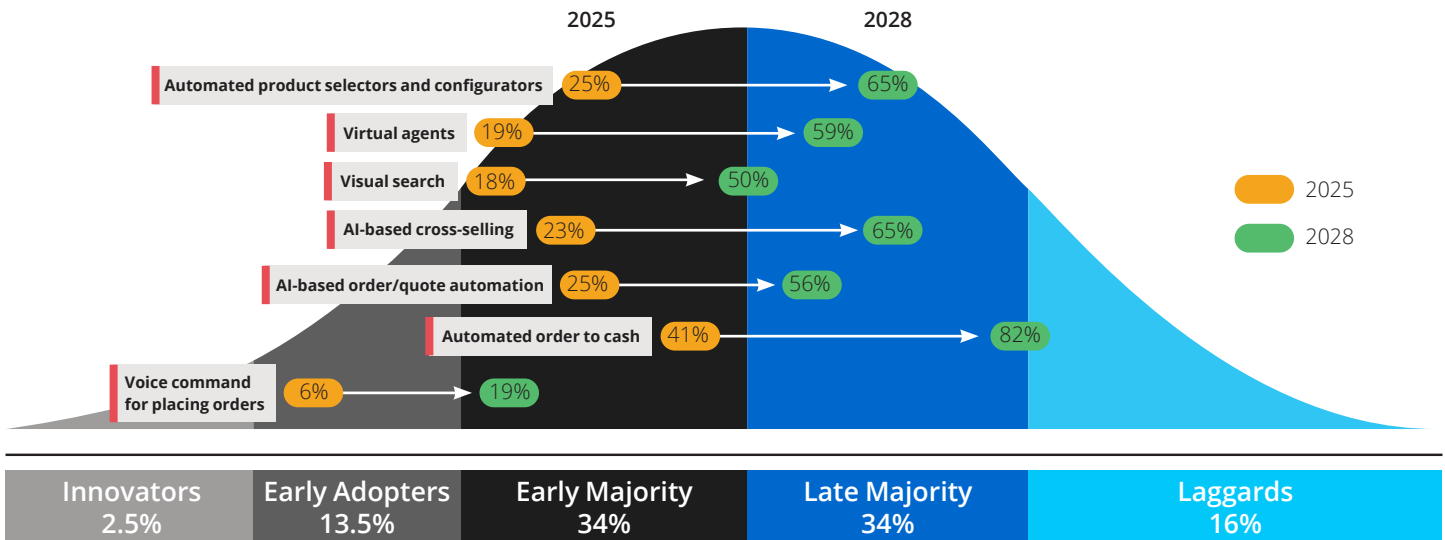
We use the technology adoption curve to measure where in the lifecycle a particular technology is in distribution. The stage characterizes adoption by the market rather than an individual company. The concept goes back to the early 1960s:

- **Innovator:** Less than 2.5% of the market is using the tool.
- **Early adopter:** About 13.5% of the market is using the tool. They are a little more risk-averse than the innovators.
- **Early majority:** Companies that know they need to keep up with the competition but are pragmatists and slower to adopt.
- **Late majority:** When technology is in this stage, 50% to 83% of the market has adopted it. They adopt because they must.
- **Laggards:** Holdouts remain skeptical to the end.

Understanding where a tool sits on this curve helps distributors make informed choices. Distributors that wait for mainstream adoption may miss their window for an advantage.

A Functional Breakdown

Sales, Marketing and Customer Service

	2025	2028
Automated product selectors and configurators	25%	65%
Virtual agents	19%	59%
Visual search	18%	50%
AI-based cross-selling	23%	65%
AI-based order/quote automation	25%	56%
Automated order to cash	41%	82%
Voice command for placing orders	6%	19%

Legend: 2025 (orange), 2028 (green)

Innovators 2.5%	Early Adopters 13.5%	Early Majority 34%	Late Majority 34%	Laggards 16%

Distributors are embracing AI that increases revenue and streamlines customer interaction.

Intelligent virtual agents are moving beyond basic scripts, for example. They're now able to understand context, respond naturally and complete tasks like checking stock, initiating returns and even recommending solutions. Examples include order capture, checking delivery status, handling returns and offering product recommendations without a live rep. While adoption is still early, we expect a significant jump in the use of virtual agents by 2028.

AI tools are also closing the gap between what customers want and what reps offer. Many buyers still don't know the full breadth of what a distributor sells. **Cross-selling and reorder recommendations** are systematically addressing this gap. Distributors are seeing 5% to 7% revenue bumps on orders.

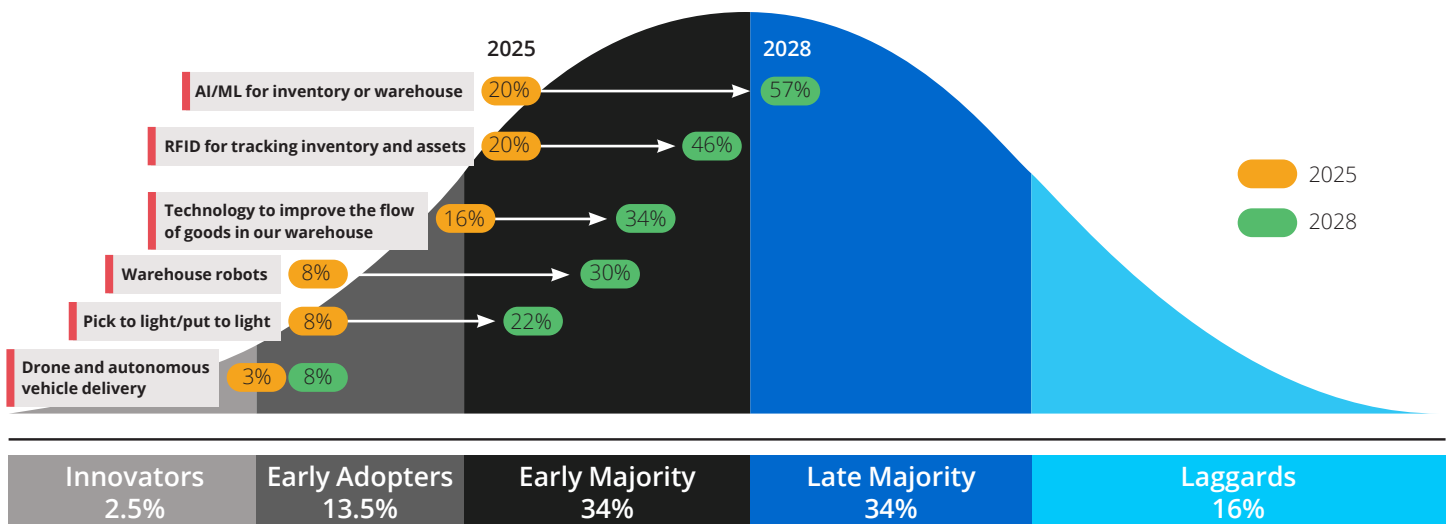**Invoicing and payment** are also a prime target for AI. Consider this:

- 49% of invoices are paper
- The cost to process one invoice is $10 to $12
- The time to process is 10 days or higher
- Invoice exception handling is around 25% or higher

Distributors can remove up to 82% of existing invoice processing costs while speeding up these workflows by 72%.

Quote and order automation are promising, as well; these tools ingest emails, fax or PDFs and convert them into ERP-ready transactions without human input. That reduces quoting time and improves win rates.

They are also becoming more sophisticated in their ability to handle unstructured vague requests. Some platforms can take phrases like "big can of PVC glue" and – using a blend of product data, PIM integration and transaction history – translate them into SKUs ready for quote or order. This reduces errors and the time it takes to get back to the customer, which can be critical to securing the business.

Warehouse and Logistics

	2025	2028	
AI/ML for inventory or warehouse	20%	57%	
RFID for tracking inventory and assets	20%	46%	
Technology to improve the flow of goods in our warehouse	16%	34%	
Warehouse robots	8%	30%	
Pick to light/put to light	8%	22%	
Drone and autonomous vehicle delivery	3% 8%		

Legend: 2025 (orange), 2028 (green)

Innovators 2.5%	Early Adopters 13.5%	Early Majority 34%	Late Majority 34%	Laggards 16%

The adoption of AI-powered technology in warehouse and logistics remains at an earlier stage compared with customer-facing functions. But we are entering a turning point. Technologies once reserved for the largest players are becoming more accessible, but there's still a long way to go:

- **Autonomous mobile robots (AMRs) and automated guided vehicles (AGVs)** will become more viable in the second half of this decade. Adoption is still relatively slow due to high costs and infrastructure adjustments. By 2028, adoption is expected to increase but remain below mainstream levels.
- **Pick-to-light and put-to-light solutions** are experiencing slower adoption rates compared to other warehouse automation tools.
- Unlike in the B2C sector, where companies like FedEx and Amazon are testing last-mile delivery solutions, B2B applications for **autonomous delivery** remain largely unviable due to cost constraints and payload limitations.
- Despite being 10X to 20X more efficient, cheaper and much safer, adoption of automated cycle counting via **AI-powered drones** has been slow. As tech advances and integration becomes easier though, drones will become essential for improving inventory accuracy and reducing labor costs.

Supply Chain Optimization

AI can help answer how much inventory to buy, where to place it, when to reorder and more so that distributors can adapt to market volatility in real time, factor in more external variables and optimize across locations.

AI tools help distributors:

- Increase fill rates by 5%, reducing stockouts and improving service levels
- Cut holding costs by 5%, preventing overstocking and lowering waste

These systems can:

- **Cluster products based on demand volatility:** Distinguishing slow-moving, fast-moving and seasonal items to fine-tune purchasing strategies.
- **Factor in external variables:** Forecasting models can account for weather, economic trends and promotional cycles.
- **Optimize in real-time:** AI continuously analyzes data across warehouses and customer locations to make intelligent stock decisions.

More distributors will adopt these tools by 2028 as they recognize AI's ability to optimize stock levels, reduce waste and streamline warehouse operations.

The Rise of Agentic AI in Distribution

Agentic AI continuously and proactively plans, makes decisions and executes tasks across multiple applications. This technology will gain speed in 2027 in distribution.

This is when we will move from AI-enhanced tools to fully autonomous systems that operate without human input. These systems will integrate across CRM, ERP and supply chain platforms, creating seamless workflows.

Agentic AI is more than automation. Unlike generative AI tools like ChatGPT that require prompting, agentic AI is proactive. It anticipates demand, reorders stock, negotiates supplier contracts and engages customers in real time. It can also manage orders and inventory. It adapts to business context, executes tasks and scales.

These tools reduce errors, improve service and scale operations without scaling headcount. Distributors that embrace agentic AI will gain a lasting advantage. Those that don't may find themselves vastly outpaced in cost, speed and service by 2030.

2025: A Turning Point

2025 has been a defining year. The technologies delivering efficiency gains today will be responsible for up to 40% improvements by 2030. These won't come from one individual technology, but from adopting a portfolio of AI-enabled tools across the business.

This isn't like the ecommerce wave, which brought change but didn't transform the underlying fundamentals. AI will, however, and it's already started to. Distributors that wait to adopt AI will find themselves struggling to compete with peers who are faster, leaner and smarter.

The bottom line is a better bottom line. These are compelling reasons for distributors to continue to embrace AI. These tools are the future state for distributors.

About the Author

Jonathan Bein Ph.D. has worked with over 100 distributors to apply advanced analytics and AI to improve customer experience, define value proposition, estimate sales potential and create digital strategy.

Before Distribution Strategy Group, Bein has successfully led and been part of executive management for software product and services companies in information technology, healthcare and communications.

Bein earned his Ph.D. in Computer Science at the University of Colorado with a focus in Artificial Intelligence and a BA in Computer Science at Indiana University.

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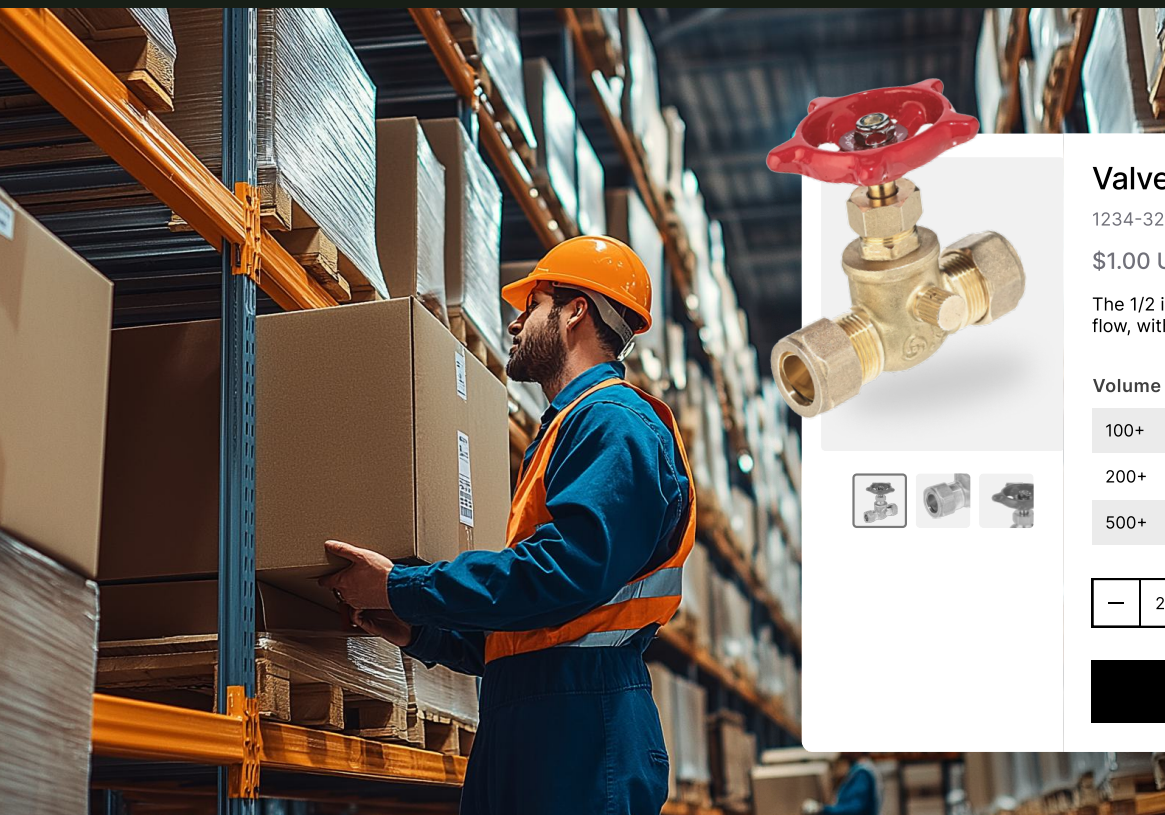
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