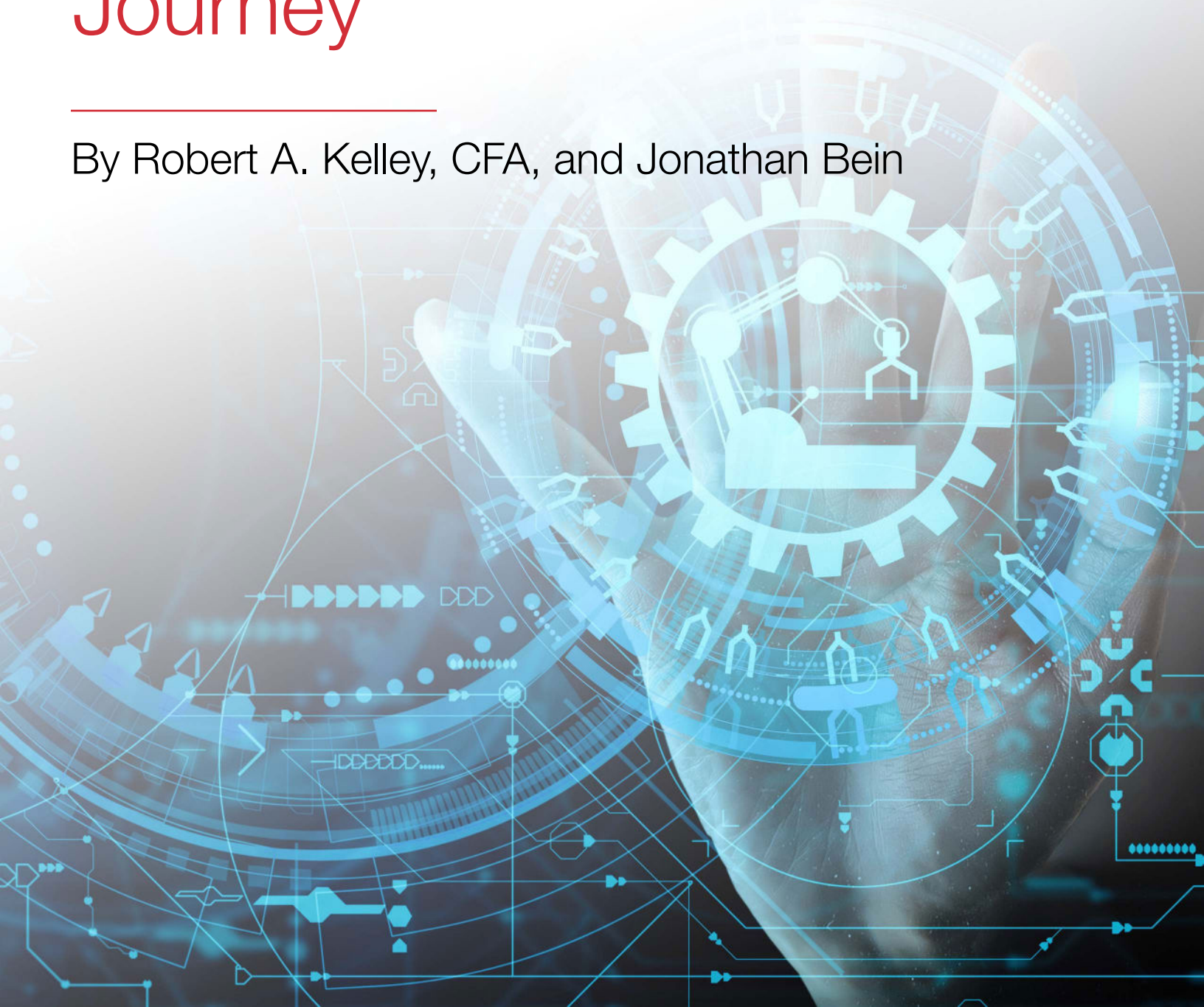


2021 State of Technology in Distribution

Automating the Customer Journey

By Robert A. Kelley, CFA, and Jonathan Bein



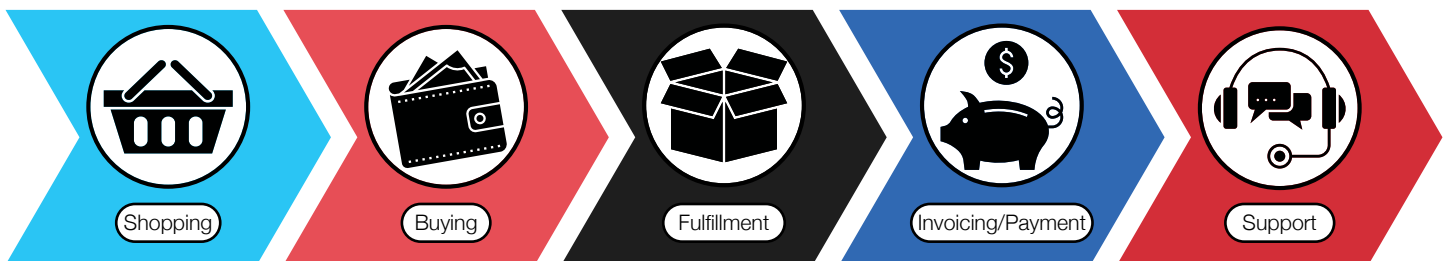
Distribution Strategy Group conducted a survey and other primary research about how distributors anticipate ongoing, rapidly changing technologies will affect them, and how and where they plan to adopt new technologies.

We asked distributors which vendors and tools they are using for core functions such as CRM, ERP, digital marketing and business intelligence. With this foundation, our research also focused on how distributors are using technology to guide the customer journey: from when customers begin looking for solutions through fulfillment, delivery, payments and any related support and services. These comprise the activities that take place between the end customer and distributor. We looked at where technology can automate the customer experience, so the customer can operate without interacting with the distributor's team.

Based on our research into the evolving role of technology in transforming the customer journey, we have reached these conclusions:

The most significant improvements have occurred in how customers shop. This is shortening the time it takes for customers to find the right products, driving significant efficiency and productivity gains. However, the highest value imparted by customer service and field sales reps will go beyond just technology for many years to come.

Significant automation already exists in the buying stage of the customer journey. While many distributors have already adopted some form of touchless ordering such as ecommerce, they are also rapidly deploying other forms of touchless ordering such as email order automation.



New technologies are emerging to automate the invoicing/ payment stage of the customer journey. Automating invoicing and accounts receivable improves productivity for the distributor and the experience for the customer.

There are fewer examples of distributors using advanced technologies to improve fulfillment for the customer, with some exceptions such as self-service. While there is plenty of technology to support warehouse automation, technologies that are visible to the end customer such as drones and autonomous vehicles are in very early stages of adoption.

We don't expect adoption of technology in the support phase of the customer journey until later this decade at the earliest. These technologies support the delivery of value-added services such as diagnosis, repair, calibration, etc.

The Technology Adoption Curve

In this report, we measure technology maturity and adoption levels in the distribution industry using a Technology Adoption Curve, a method that originated in a study George M. Beal and Joe M. Bohlen conducted with farmers. Their framework is instructive in thinking about how businesses across industries look at and adopt technology:

Awareness. In this example, these were farmers who had heard about something new – for example “hybrid seed corn” – but were not entirely sure what it was, how it worked or what it could do for them. Today, this is a lot like AI, machine learning, blockchain and other technology buzzwords.

Interest. Here, farmers had heard that something could save them time (efficiency), ensure crops were successful (risk reduction), make them more money (effectiveness), or other benefits they cared about, so they wanted to know more about it, how it worked, how much it cost and whether they should consider it for themselves.

Evaluation and Trial. During the studies with actual farmers, they discovered that they required multiple steps before changing how they did things. They first needed to understand the changes and how well they would work.

Adoption. When farmers moved on to deploy a new technology, they did not entirely shift to the new technologies or ways of thinking. For example, most farmers adopted hybrid seed corn incrementally, a few acres at a time. Widespread adoption typically required more than 15 years. Today's companies cannot take that kind of time before deciding to change.

Investigators learned that adoption depended on the complexity, magnitude and risk associated with the changes. For technology users today this is akin to:

Changing materials or suppliers (relatively small impact). For distributors, examples might include upgrading PCs, network components or switching from desktop to cloud-based applications and storage. This is often driven by a desire for better features, performance or lower costs.

Changes in critical business processes (requires significant time and effort, making distributors vulnerable to costly mistakes). For distributors, this may be adopting CRM or implementing ecommerce, which may eliminate the personal touch of the sales rep and require customers to fill out order forms themselves. This changes the customer experience and, if not implemented well, could cause customers to go elsewhere.

Innovation (affects an entire ecosystem of people, processes and practices). The most familiar example here is a change in ERP vendors. However, other use cases are technologies that transform manual work to fully automated processes or those that require integrations with other organizations and change the structure of the business. This could include a shift from warehouse stores to online-only selling, from maintaining inventories to drop-shipping only, and so on.

Enterprise change (where the company shifts to an entirely new business). For example, a distributor may need to shift from selling products to a complex services business, effectively becoming an outsourced partner of its customers, such as moving fully into the integrated supply business.

This research resulted in the adoption curve that we have adapted for this report, illustrating where distributors are – and where they expect to be – in their adoption of technologies. Throughout this report, you'll see the various technologies plotted on a curve, based on the below adoption/maturity phases:

Innovators

Innovators represent a small percentage (2.5%) of businesses that take risks to leap ahead of competitors. These companies are typically very sophisticated and see themselves as leaders among their peers. They are not as interested in incremental improvements as they are in securing a position far enough ahead of competition that others will have a difficult time keeping up. The technologies used here are often considered “revolutionary” or “disruptive.” Examples of technologies for distributors could be AI, robotics or others that provide a quantum-leap advantage.

Early Adopters

Early Adopters (13.5%) are visionaries who, early on, recognize the potential for new technologies and ways of doing business. In general, they believe that certain new technologies will be the way things are done. A prime example is ecommerce. It took a while for most distributors to make the investment and commitments to building an online business. Distributors that were ahead of the curve held an obvious advantage, grabbing market share and creating strong customer loyalty. Early adopters also benefited from cost savings and efficiency improvements. Today, we are seeing similar results for early adopters of AI and certain automation technologies.

Early Majority

The Early Majority (34%) include pragmatic businesses who take a “wait-and-see” attitude before making commitments. While they know they are ultimately heading in the direction of adoption, they are cautious and try to gain from the experiences of others. They know that some adoptions will not perform as expected and some will even fail. They benefit from waiting to see which technology providers emerge as leaders. Continuing with ecommerce as an example, five to 10 years ago, the amount of revenue acquired online was minimal, except for leaders such as Grainger. Now, however, technologies and the vendors that provide them have improved enough to make cost-effective implementations possible and many early majority companies are investing in ecommerce systems.

The Late Majority

This phase (34%) marks the tipping point when more than 50% of companies have adopted the technology or are in the process of implementing it. These businesses are considered conservative from an adoption perspective. This delay in adoption is sometimes due to the inability to afford the implementation or a conservative investment approach designed to ensure that the choices are the most likely to succeed for the businesses. Historically, it's taken multiple years to measure the effectiveness of many technologies. For example, CRM has been known not to yield the expected payback if not used effectively by sales and customer service staff until they made other organization and process changes. But today's technologies often provide a rapid payback – if well implemented and adopted.

Laggards

Laggards (16%) remain skeptical about technologies even after they have become the accepted means of doing business. Distributors may not adopt technology for many reasons, including age, size and focus of the company. The investment may not seem affordable, or other priorities may take precedence.

Core Technology Adoption & Effectiveness

While this report is primarily focused on how distributors view new technologies within their businesses, it's important to understand where they are with their core technology stack, including ERP, CRM and more.

Here's a look at adoption levels and distributors' satisfaction about how well current vendors, products and technologies are performing relative to their business needs (Chart 1 on page 8).

Enterprise Resource Planning (ERP)

Distributors use ERP systems for end-to-end transaction management, and to manage inventory and related activities such as logistics and planning, as well as financials. The ERP is the main point of systems integration and coordination of all internal operations of the business. For this reason, technologies that leverage ERP capabilities and augment how the business can increase efficiencies, optimize effectiveness and create the best outcomes will be a priority over the coming years.

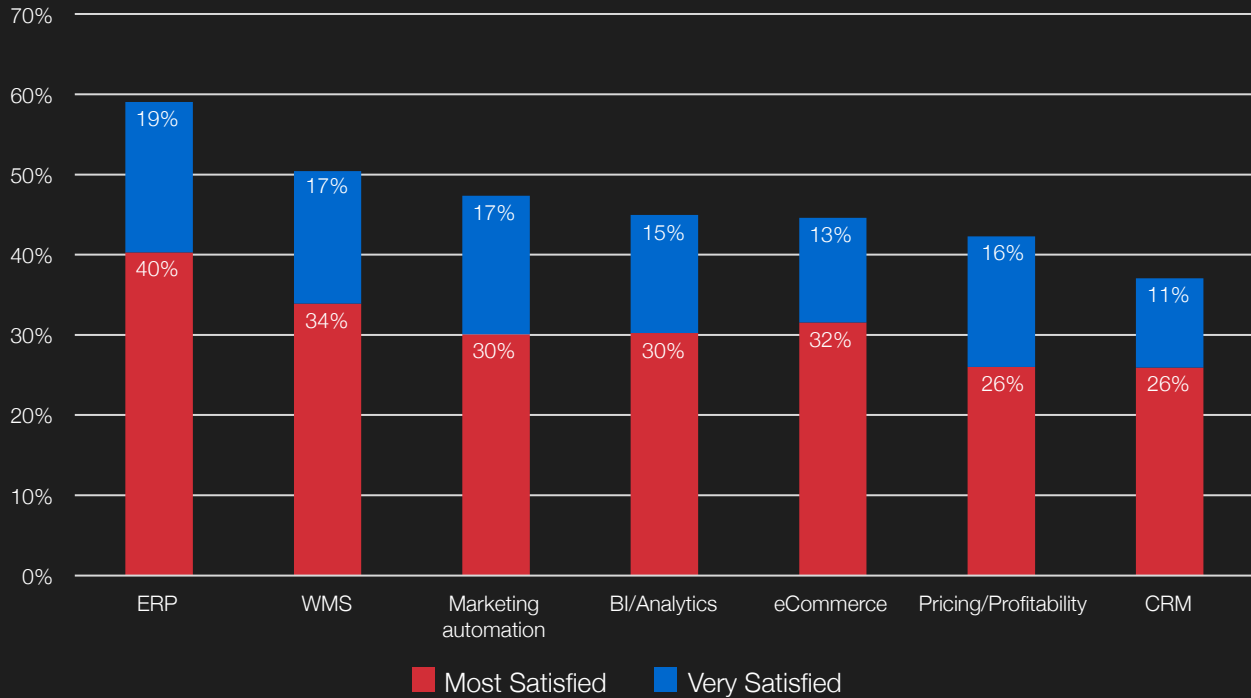
Most distributors have deployed ERP technology from prominent vendors; less than 10% still use custom solutions. About 60% of distributors are very satisfied or mostly satisfied with the effectiveness of their ERP solutions, with less than 13% unsatisfied. This is the highest level of satisfaction for all technologies in the tech stack.

Customer Relationship Management (CRM)

For many distributors, core customer data is used mainly to keep track of who is ordering products, where to deliver them and how to bill customers and settle transactions accurately. More advanced distributors have realized the value of knowing customers well enough to understand them in detail, including key individuals. A CRM helps distributors meet customer needs in a way that drives loyalty and grows revenue and profitability over the long term. CRM enables intelligent interactions and personalize the way distributors do business with customers by centralizing information about how to engage the customers in ways that they want.

Less than 10% of respondents indicated that they are very satisfied with their CRM solution. About a fifth are not satisfied, and 16% indicate that either they do not have a CRM solution or it is not

Chart 1: Satisfaction with Tech Stack Technologies



applicable to their business. Although DSG has worked with many distributors to improve their sales, marketing and customer support results, we have seen very few successful CRM efforts in distribution. Although reasons vary, less successful cases seem to be the result of inconsistent adoption across the organization, as well as solutions being used more for management oversight than increasing efficiencies and effectiveness for the sales team.

Email Marketing/Marketing Automation

Email marketing is, simply defined, using email to engage with your audience. And while email marketing platforms have grown in sophistication, they only track the actions taken by recipients of your email blasts. During the pandemic, email grew to be even more critical for staying in touch with customers and is in widespread use.

As defined by Act-On, marketing automation monitors every digital interaction an individual has with your business. It compiles that data into a history that provides a complete view of your prospects and customers. Distributors can use that data to automate and personalize communications. Marketing automation is a significantly underutilized tool in distribution; it costs more than simple email

marketing, and requires a bigger commitment, but the payoff is high.

Nearly 40% of distributors are satisfied with their Email Marketing and Marketing Automation solutions. Unfortunately, about a fifth of distributors are not satisfied with their current solutions, and 17% either do not have a marketing automation solution or consider it not applicable to their business.

eCommerce

Most distributors require a comprehensive multichannel strategy and capabilities for engaging customers. However, the pandemic put ecommerce front and center, with more shopping and buying moving online in 2020.

In 2020, DSG research found that ecommerce adoption (the ability to take an order online) soared to over 26%. The fastest growth in adoption was in distributors with less than \$50 million in sales, which nearly doubled from 13.4% in 2019 to 25.1% in 2020. We found that about 47% of distributors larger than \$1 billion in revenue have adopted ecommerce, with some sectors such as JanSan above 50%.

Surveys indicate that this shift online will continue well into the future. As a result, distributors will succeed or fail depending on the quality and capabilities of their digital presence and the ability of customers to shop for and purchase products and services on their websites.

Unfortunately, only 11% of distributors are very satisfied with their ecommerce solutions. Almost 25% are somewhat or very dissatisfied with their ecommerce. And nearly 20% of respondents do not have ecommerce or consider it not applicable to their business.

Warehouse Management Systems (WMS)/Warehouse Execution Systems (WES)

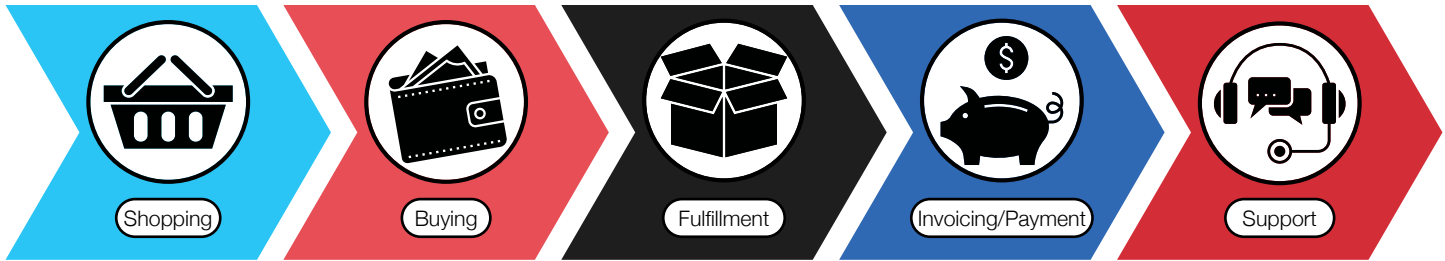
The heart of fulfillment is the warehouse. Because this is an area that can take up significant time and where mistakes are often made, warehouse management is an ideal place to deploy advanced technologies. In particular, the warehouse is a great place to use automation technologies such as robotics, autonomous vehicles, Internet of Things (IoT) sensors and even technologies such as AI for resource planning, inventory management and other core activities that normally require direct human involvement.

Approximately 37% of distributors are satisfied with their warehouse management solutions. Only 75% of distributors have deployed WMS or WES. Less than 18% of distributors are dissatisfied with their warehouse management solutions.

Business Intelligence (BI)/Analytics

To better understand what is happening in the business, distributors need to leverage more advanced technologies to collect data and analyze what that data means. This is especially true for planning inventory reordering, implementing quality improvement programs, and executing sales and marketing activities, including prospecting, promotions, services and price optimization. Critical capabilities include data mining, machine learning for data analysis, triggers and notifications for automated actions and visualization of data in ways that enable better understanding of complex situations.

About three-quarters of distributors are using BI or Analytics. However, only 12% are very satisfied with their effectiveness. About 22% are not satisfied with the BI/Analytics they are using.



The Customer Journey

The major steps of the customer's journey during the course of business with distributors are:

Stage 1: Shopping

Shopping is the first stage of the customer's journey. The customer uses whatever tools and information are available from the distributor regarding their products, services and suppliers. The customer is looking for information about how to solve a problem or accomplish a goal. Distributors generally respond by offering products that have specific characteristics including size, shape, color or countless technical specifications that vary by category. The potential for technology to help customers in this stage of the journey is to bridge the gap between what the customer wants or needs and how the distributor can provide solutions.

Stage 2: Buying

If a customer completes a transaction, they will continue through the rest of the steps in the journey. The distributor's goal is to optimize the number of times a purchase occurs, as well as maximize the size of each transaction. This stage is more complex than it may seem because the customer often must make several choices, which then trigger other processes. These choices could be as simple as how to ship or whether to pick items up at a warehouse. Or, they could be as complex as detailed customization and configuration of complete solutions. The distributor will often offer additional products and services at this stage to grow its revenues and profits.

Stage 3: Fulfillment

This is the stage of the customer journey in which the distributor delivers the value the customer has purchased. At a minimum, the distributor must deliver the right product for the customer in the required timeframe. For more complex purchases, the fulfillment stage is where the distributor provides complete solutions, including implementation or customization. Internally, distributors must work to

optimize their operations to lower costs and increase quality in this stage. This stage of the journey can precede, occur in parallel with or after the next.

Stage 4: Invoicing and Payment

This stage is often plagued with excessive paperwork and process delays. This is caused by the need for finance, accounting and operational systems of multiple organizations to work together. New technologies promise significant improvements in capabilities, productivity and accuracy in this stage of the customer journey.

Stage 5: Support

This is the stage that completes the customer's journey. Here, distributors work to ensure that the customer is satisfied and will buy more and more often. In addition to making sure that the customer is receiving the value they expected, distributors must correct any issues that may have arisen and learn how to get better in the future. Support includes value-added activities ranging from returns, warranty administration, training and education to get the most out of products, and more.

Automating the Customer Journey

A good way to evaluate technologies is to weigh their impacts against an ideal goal of a completely “lights out” operation – a hypothetical business model in which customers can travel through all steps of the journey with no involvement by distribution employees. In this model, all ordinary activities are fully automated and driven by the customer. For other areas where the distributor can offer experience, expertise, creativity and higher-level solutions, employees are still part of value delivery.

With the advent of ecommerce around 2000, automation in the customer journey took a large step forward. Customers were now able to shop and buy online without interaction from a rep.

Many exciting new technologies show promise in dramatically changing how distributors operate and engage with customers. These technological advancements incorporate both information and knowledge to perform tasks automatically or to augment human beings in their work.

In this part of the report, we share where newer technologies fit in the customer journey and how close they bring the distributor to fulfilling a vision with the right mix of a seamless operation combined with the highest level of employee expertise.

Stage 1: Shopping

A primary function of the distributor is to assist the end customer in finding the right solutions, products and services for the situation. But distributors have long understood that there are significant differences in shopping behavior and satisfaction between occasional buyers and regular, repeat purchasers. There are also significant differences when shopping for common commodity components versus engineered solutions that solve a complex customer problem.

As a result, the level of technical support and expertise required during the shopping process may vary significantly. Distributors use technology to do this, starting with enabling access to basic information about the products it carries. The ERP system maintains product information about product lines, categories, SKUs and details such as color, size, dimensions or other characteristics. In many cases, specialized product information management systems (PIMS) are integrated, which simplifies obtaining and managing product data as well as allows distributors to add many different types of information. Within ecommerce environments, distributors exploit technology to enable the customer to search products using parametric search capabilities and other tools to quickly find the items they need.

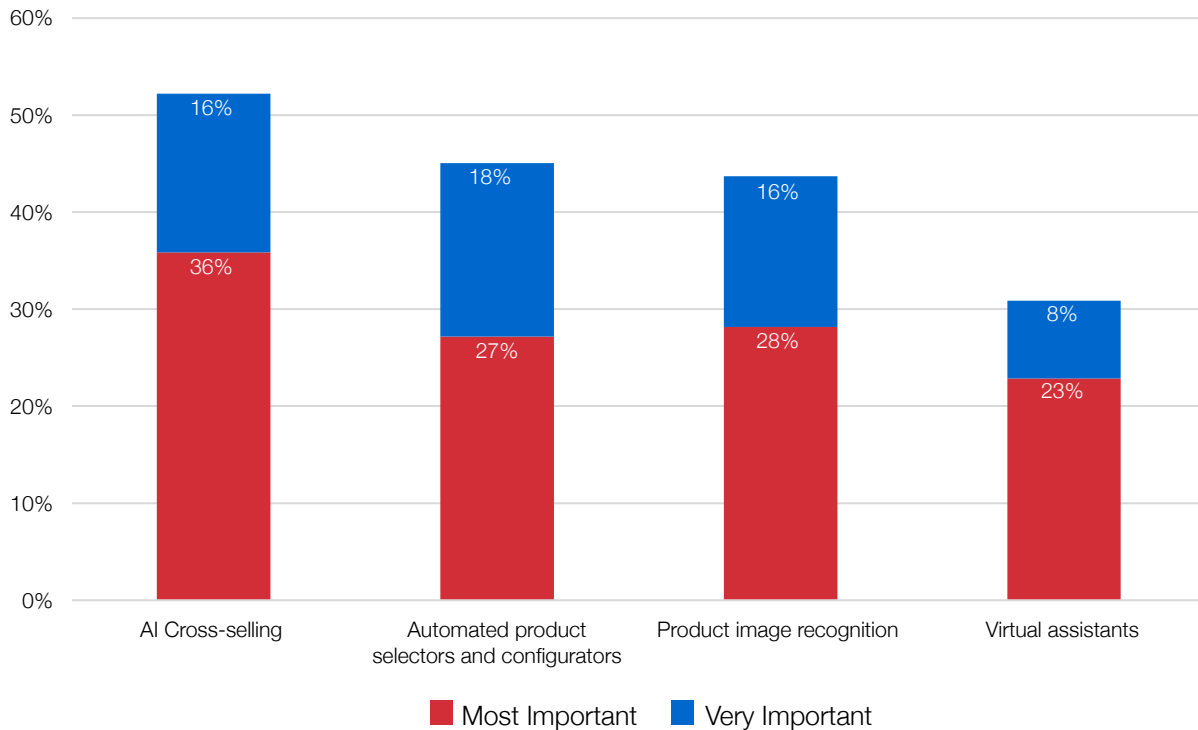
Newer technologies are addressing the shopping experience in ways that are more personalized and that take advantage of shopping patterns (Chart 2 on page 14):

AI for Product Recommendations and Cross-Selling

Cross-selling is the holy grail for many distributors because most have many more product categories and SKUs than any individual customer purchases. A software application can automatically analyze millions of transactions to provide the best fit for a common set of problems. For example, based on a set of sales transactions, an application can recommend to a sales rep what to pitch to a customer. On an ecommerce platform, it can drive product recommendations based on what a customer is most likely to buy.

Currently, less than 10% of distributors have deployed or are in the process of implementing AI for product recommendations and cross-selling. Early experience with DSG distributor clients has demonstrated potential for substantial return on investment and rapid payback. This is primarily due to improved effectiveness of

Chart 2: New Technology Importance: Shopping





sales and customer service reps to cross-sell more products. For the customer, it also is more efficient than having to return later to shop for things that he may need but either isn't aware of or has forgotten.

For distributors, AI for product recommendations and cross-selling technology is in the Early Adopter phase, advancing to Early Majority within three years. It is expected to become a common tool during the shopping process of the customer journey for about half of distributors surveyed.

Product Selectors and Configurators

It has long been known that while website search engines are powerful if the user knows what he is looking for, they are not the most efficient nor the most effective means of finding the specific products. New technologies and tools are now available that help the customer quickly narrow down a search.

Intelligent configuration and quoting (CPQ) solutions can simplify and accelerate the process of providing the customer with the solution they require. Based on survey findings, a relatively small

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| <p>Lighting Contactors</p>  <p>Type L/LX (8903L/LX) Multipole Lighting Contactor</p> <ul style="list-style-type: none"> • Available Mechanically and Electrically held • 2-12 convertible poles. Available in variety of pole configurations • 30A Fluorescent ballast rated, 20A Tungsten rated, 20A LED ready • 50-60hz rated • Multiple coil ratings including 24VDC • Available open style and multiple enclosure ratings • UL and CSA rated | <p>Select Product Subset</p> <p>Multipole (8903L/LX)</p> <p>Available 2-12 convertible poles, mechanically or electrically held, rated 20A Tungsten/LED and 30A Fluorescent Ballast and available in a variety of enclosures</p> <p>Type S (8903S)</p> <p>Type S lighting contactors utilizes the same type S design as our motor control. Available mechanically held 30A-600A and electrically held 30A-600A in a variety of NEMA rated enclosures. 2-5 pole variations up to 200A</p> |
| <p>Type L/LX Lighting Contactors</p> <p>Available with current ratings up to 30A</p> <p>UL Listed and CSA certified to meet a variety of North American needs</p> <p>Features</p> <p>Class 8903 L/LX multi-pole lighting contactors are available in wide variety of enclosures suitable for lighting control.</p>  | <p>Features</p> <p>Configuration:</p> <p><input checked="" type="radio"/> Electrically Held <input type="radio"/> Mechanically held</p> <p>Ampacity: 20/30</p> <p>Pole Configuration:</p> <p><input checked="" type="radio"/> Normally Closed <input type="radio"/> Normally Open</p> <p>Number of Poles:</p> <p><input checked="" type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8 <input type="radio"/> 10 <input type="radio"/> 12</p> <p>Enclosure:</p> <p><input checked="" type="radio"/> Flush Mount (NEMA 1) <input type="radio"/> NEMA 1 General Purpose <input type="radio"/> NEMA 12/3R <input type="radio"/> NEMA 3R <input type="radio"/> NEMA 4/4X Polyester <input type="radio"/> NEMA 4/4X Stainless <input type="radio"/> OPEN</p> |

Product selector


percentage (7%) of distributors are currently using intelligent product selection and configuration tools. Another 10% are in the process of implementing such technologies. However, distributors consider these tools and technologies very important. The mismatch between the high value distributors place on these capabilities and the actions they have taken indicates that this is an opportunity worth pursuing. Many distributors want more education and awareness about the tools' potential impact.

Product selectors and configurators are currently in the Innovator stage of adoption, but many distributors are implementing or planning to implement them. So, we expect them to be in the Early Majority by 2025.

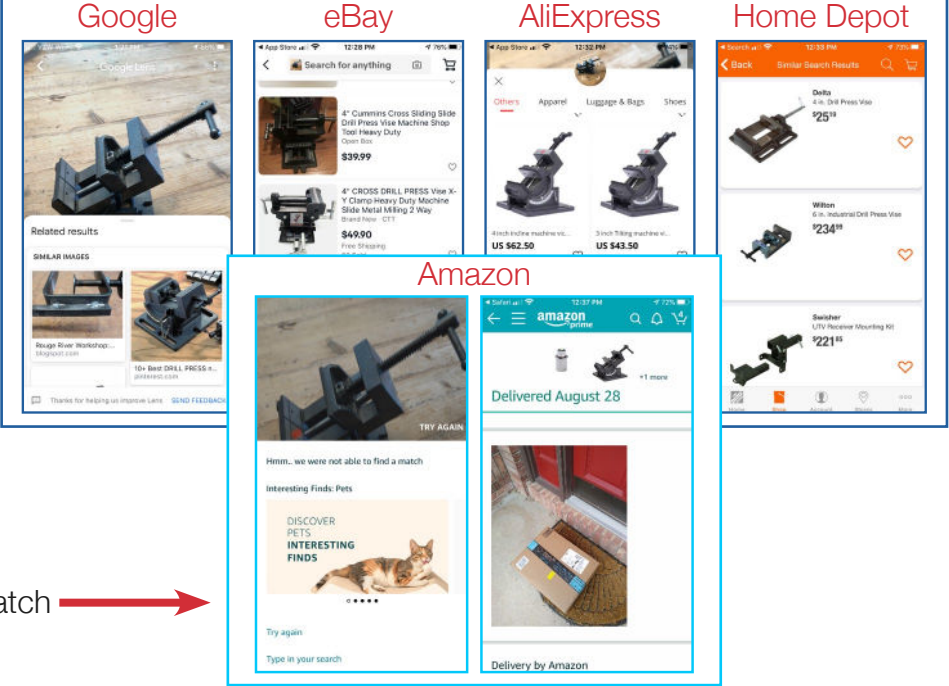
Item Recognition

Item recognition has significant potential for improving the customer's shopping experience. Machine learning has fine-tuned the technology's accuracy. Early in adoption, item recognition enables customers to use a mobile-device camera to capture an image of a product or component; the application then identifies what the object is to match it to a SKU the distributor offers.

Matched →



Did not match →



Item recognition

More complex systems that rely on AI for item recognition include autonomous self-driving vehicles, which need to recognize where they are going to avoid collisions. This could also include a warehouse environment where they need to be able to pick and transport the correct items to a shipping dock or pickup station.

Item recognition is an Early Adopter technology, which about half of distributors expect to deploy within three years to help customers find products. Distributors expect it to be in frequent use for shopping as the technology matures. Already about 14% of distributors have some experience with it. Other uses will be internal to operations.

Chatbots

Virtual agents such as chatbots engage a customer in an interactive dialog to guide the customer through a complex inquiry about products and services without having to interact directly with a human being. Such digital agents help overcome knowledge and information gaps of human staff, and they gather information automatically that a human can then access to help the customer find the solution they need. This is an example of increasing efficiency for both the customer and the distributor.

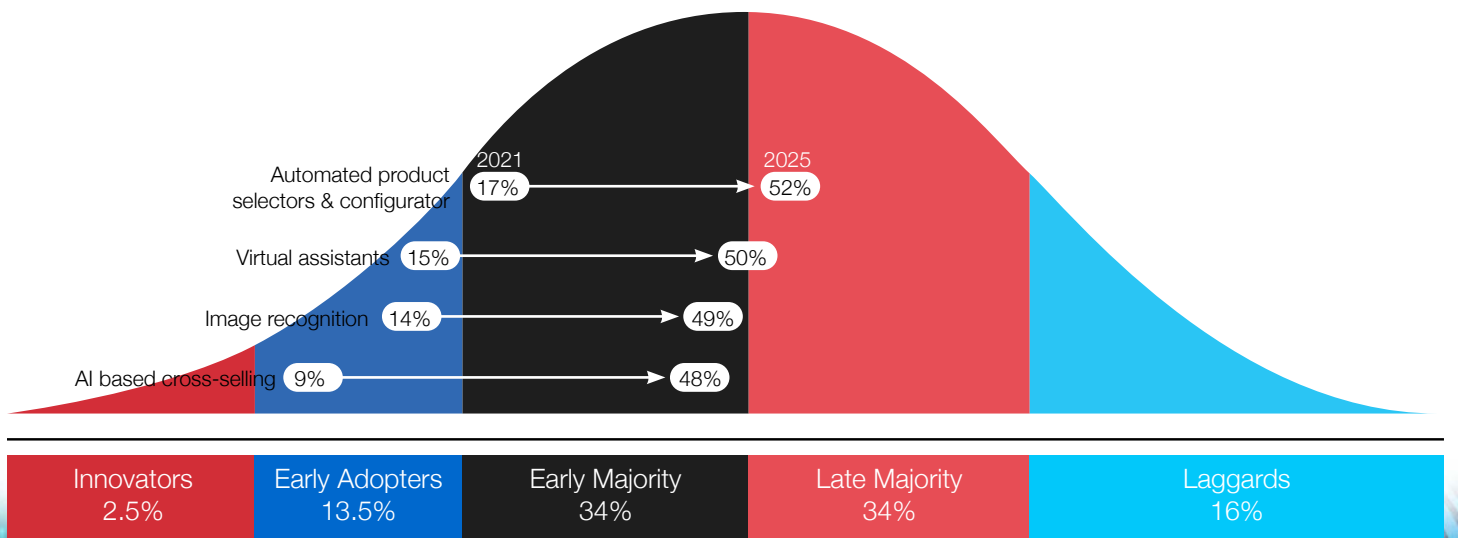
This type of AI combines machine learning with knowledge about natural language to come up with a realistic and useful human interaction. The purpose of this type of AI is to improve the customer experience with a rapid and convenient way to get the right answers or reach the right resources.

Currently, chatbots are not fully accepted and, in some cases, are disdained by distributors. This may be because it is difficult to create a better experience than a human, depending on the tasks required. Chatbots and virtual agents are not in wide use today by distributors, although they are commonly available in consumer ecommerce environments.

For distributors, chatbots are an Early Adopter technology that about half of distributors expect to deploy within three years as a part of the customer shopping experience for simple transactions.

The true value of a customer service rep or sales rep involves helping the customer find the right solution and the right product categories. This is well beyond the reach of current chatbots and avatars. It will likely remain as the province of CSRs and sales reps for a long time. To automate this will require a general-purpose form of AI that goes beyond solving specific tasks such as configuration or cross-sell. It may be decades before general-purpose AI is available.

Chart 3: Shopping Technologies Adoption Curve - 2021 vs. 2025



Similar Items

1 - 5 of 10



North P100 Reusable
Respirator Filter -
\$9.90 / PR in stock
NORTH 7580P100

1 **ADD**



North P100 Reusable
Respirator Filter -
\$11.10 / PR in stock
NORTH 75FFP100NL

1 **ADD**



North P100 Reusable
Respirator Combination
\$23.06 / PR in stock
NORTH 7581P100L

1 **ADD**



North P100 Reusable
Respirator Combination
\$23.23 / PR in stock
NORTH 7583P100L

1 **ADD**



North P100 Reusable
Respirator Filter -
\$7.29 / BG in stock
75FFP100

1 **ADD**

Frequently Bought With

1 - 5 of 8



3M F9465PC Clear
Transfer Tape - 1 in
\$53.93 / RL in stock
021200-67776

1 **ADD**



3M 5915 Black VHB
Tape - 1/2 in Width x 72
\$119.67 / RL in stock
051115-31714

1 **ADD**



3M 06396 Off-White
Tape Primer - Liquid
\$52.38 / BX in stock
051131-06396

1 **ADD**



Devcon 10 Minute Clear
Two-Part Epoxy
\$19.02 / TB in stock
078143-14251

1 **ADD**



Valeo Black Medium
Nylon Webbing Back
\$13.71 / EA in stock
736097-44138

1 **ADD**

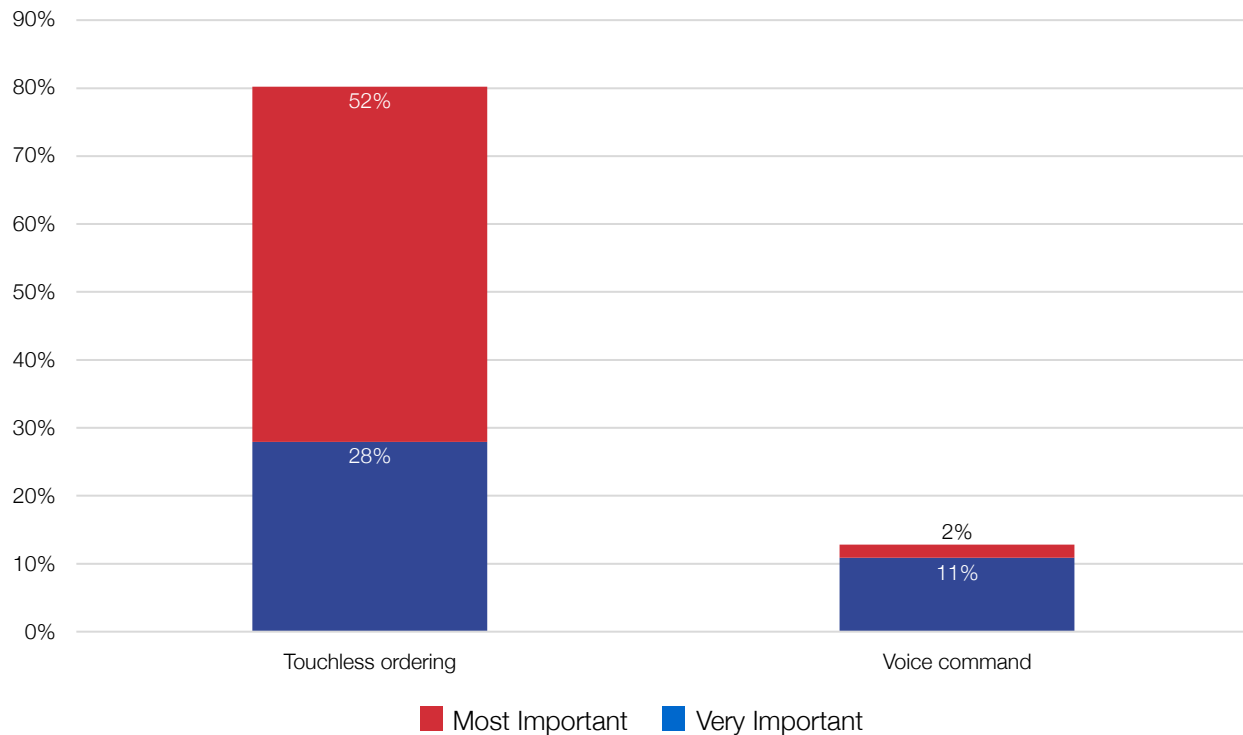
Proton's AI-generated product suggestions help distributors increase ecommerce revenue.

Marketing Automation

Distributors have used marketing automation primarily in the form of email marketing campaign automation. But such systems can also allow the shopper to take action directly by creating orders or enabling other parts of a shopping or purchasing activity. As the technology improves, distributors may personalize interactions with customers, especially for frequent purchasers. This requires acquiring and retaining information about shoppers and buyers as individuals, as members of a group and across a broad swath of similar customers.

Customer data platforms (CDP) integrate data from multiple systems and sources to create an accurate and detailed profile of shoppers and purchasers. Most CDP frameworks integrate the customer's journey and knowledge about touchpoints to optimize the relevance and timeliness of customer interactions. For example, knowledge about construction project timelines can be used to trigger conversations about what customers will be interested in over time.

Chart 4: New Technology Importance: Buying



Stage 2: Buying

Distributors need to make the purchasing process easy for customers. Many surveys of business customers have indicated that their experience in B2C environments has established the standard for what they expect in a B2B context, and that's especially true when they make purchases.

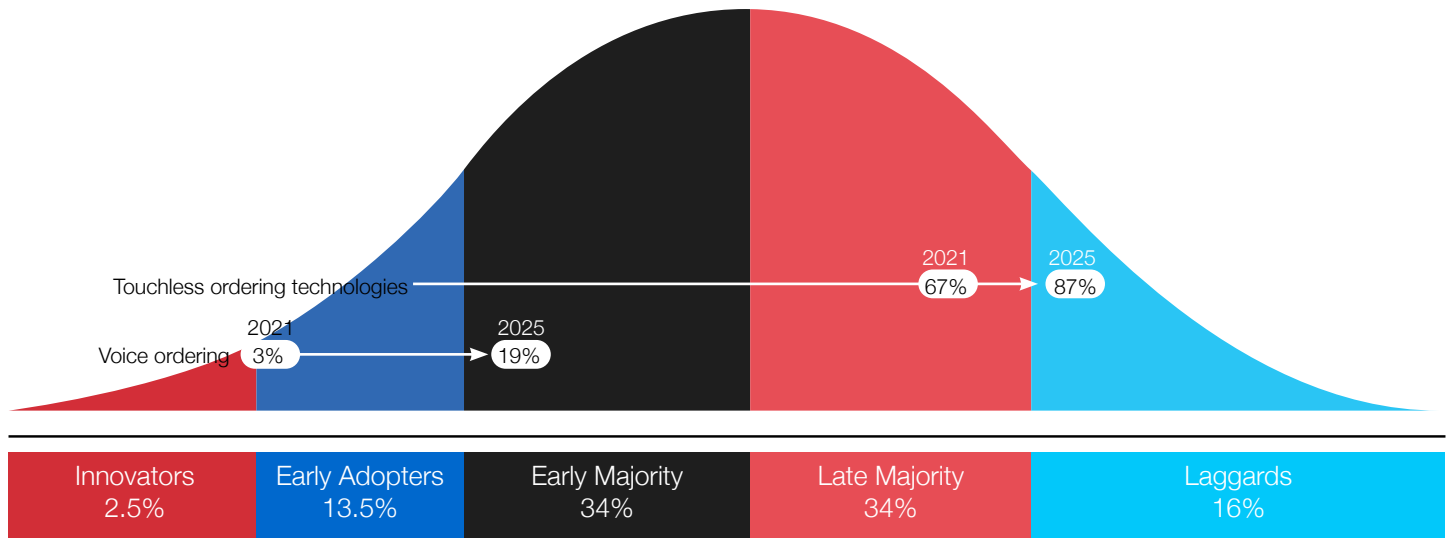
Here's a look at the advanced technologies supporting the buying process (Charts 4 and 5):

Touchless Ordering

About half of distributors in our survey are regularly using some form of touchless ordering as an alternative to email, fax or speaking with a sales representative. They are leveraging intelligent devices or mobile devices to do so. An example of an intelligent device used by Amazon is Alexa. Each touchless order saves a distributor \$5 to \$25 per order. Examples of touchless ordering include:

- eCommerce orders via shopping cart
- EDI

Chart 5: Buying Technologies Adoption Curve - 2021 vs. 2025



- Punchout
- Email order automation
- Voice commands on a mobile device or an intelligent device
- Orders triggered in a system when inventory reaches a minimum level

We expect at least some form of touchless ordering in the distribution industry to be in the Late Majority adoption phase by 2025. Voice ordering specifically is expected to be in the Early Majority stage by 2025. Just 3% are working with the technology, but 20% expect to deploy it within three years.

Integrated Shopping and Buying with AI

Because of the long-term goals of dominant players such as Amazon, we anticipate that voice ordering will expand into full-fledged voice shopping, where all aspects of consultative selling, intelligent product selection and predictive recommendations for other products and services that customers will want and need will become the norm.

How soon this occurs and who leads their peers will no doubt affect which distributors thrive and which ones slowly disappear. The next frontiers are technologies that demonstrate a significant level of “understanding” and “knowledge” about what customers



Item recognition + Voice ordering = Integrated shopping & buying AI system

need and want, and what products and services are available to fulfill the need. More importantly, such solutions must be able to make recommendations based on a reasonable comparison with alternatives to fully satisfy the customer with the best available match, given the customer's circumstances.

Stage 3: Fulfillment

Distributors must deliver products in a timely manner or otherwise fulfill a customer's needs in the most convenient way. In addition to standard or overnight shipments, this may mean easy pickup at a warehouse or store, or it may mean exploiting technologies and services that can deliver products on-site within hours. The process for fulfilling customer orders is a big opportunity to use advanced technologies to optimize the experience for the customer, while improving the internal operations of the distributor's business.

Here's a look at the advanced technologies supporting fulfillment:

Drone and Autonomous Vehicles

The main technologies we analyzed for the fulfillment phase of the customer journey were drone and autonomous vehicles for delivering products to customers. It used to be that the only way to receive a product on the same day required traveling to a physical location such as a store or warehouse to pick it up. But in some metropolitan areas, it is now possible to deliver a product by an autonomous vehicle such as a self-driving car or drone.

Within a manufacturing facility, autonomous vehicles may be used to move materials upon arrival from intake and deliver it to the assembly line or to move finished product from the assembly line to the shipping dock. The goal is an unattended manufacturing facility that does not require humans to perform any other manufacturing, assembly and testing tasks. They already exist. An autonomous German EV battery manufacturing facility leverages automation from the start of its assembly of 12- or 24-battery enclosures, which require internal electric connections and siding to be precision-welded and enclosed in a shielded housing. The process includes automated testing and delivery to the shipping dock for loading onto trucks. All without human intervention.

The existence of such fully automated manufacturing facilities demonstrates the potential and viability for such technologies. Amazon's use of drones for same-day delivery is another example. However, it is yet to be seen how fast adoption will occur for most distributors.

Within distribution, autonomous vehicles are in limited use with capabilities for picking inventory and transporting to other parts of the warehouse. In addition to internal transport, automated

technologies are used to automatically read license plates to keep track of shipments, and for automated picking from inventory systems.

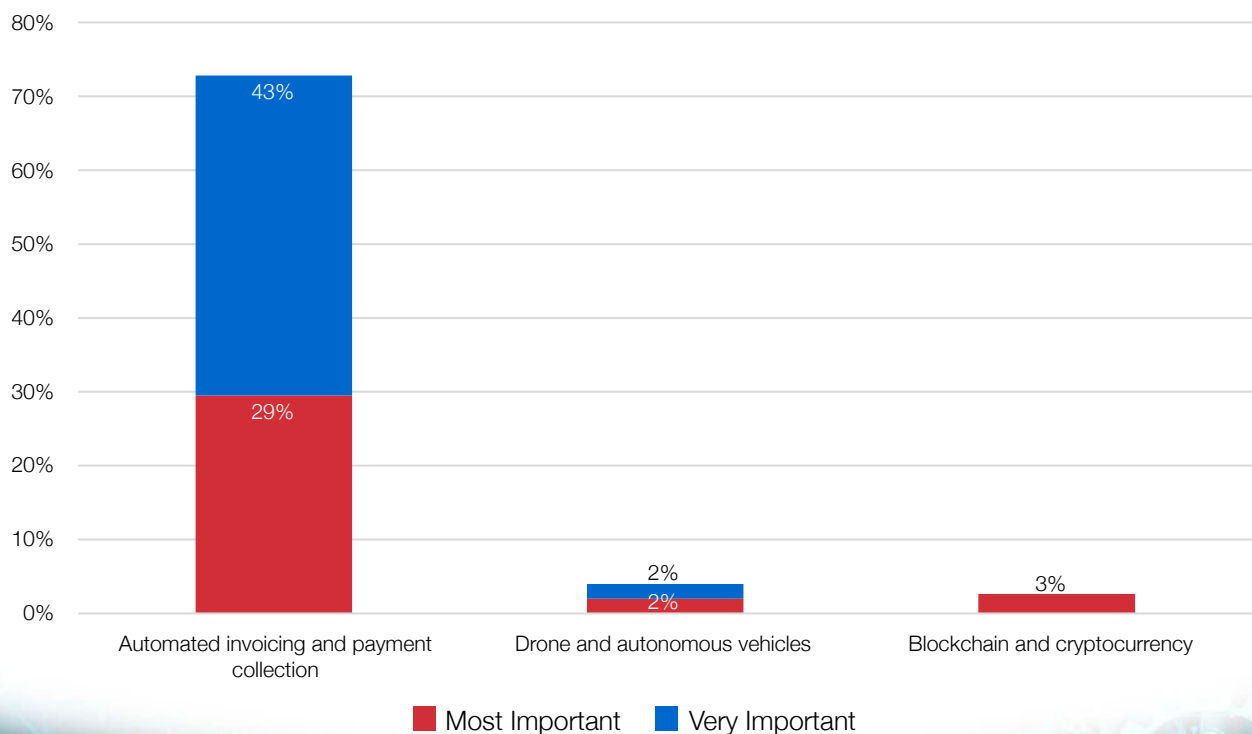
Autonomous devices and vehicles will continue to be an Innovator technology by 2025 but could fill a significant role in fulfillment to the customer's location as the technology matures. It is also likely that ride-sharing and local delivery may fulfill this requirement in the meantime.

3D Printing

It is said that the “future of manufacturing” is on-demand. Many new technologies address needs for more agility and customization, as well as a just-in-time requirement. Although there are some examples of 3D printing successes in manufacturing, particularly for prototypes and low volume, it is yet to be common in distributors.

Less than 10% of distributors indicate any experience with the technology, and less than 20% expect to deploy or use 3D printing within three years. It remains an Innovator technology and will be limited to Early Majority over the next several years.

Chart 6: New Technology Importance: Fulfillment and Invoicing/Payment



Stage 4: Invoicing/Payment

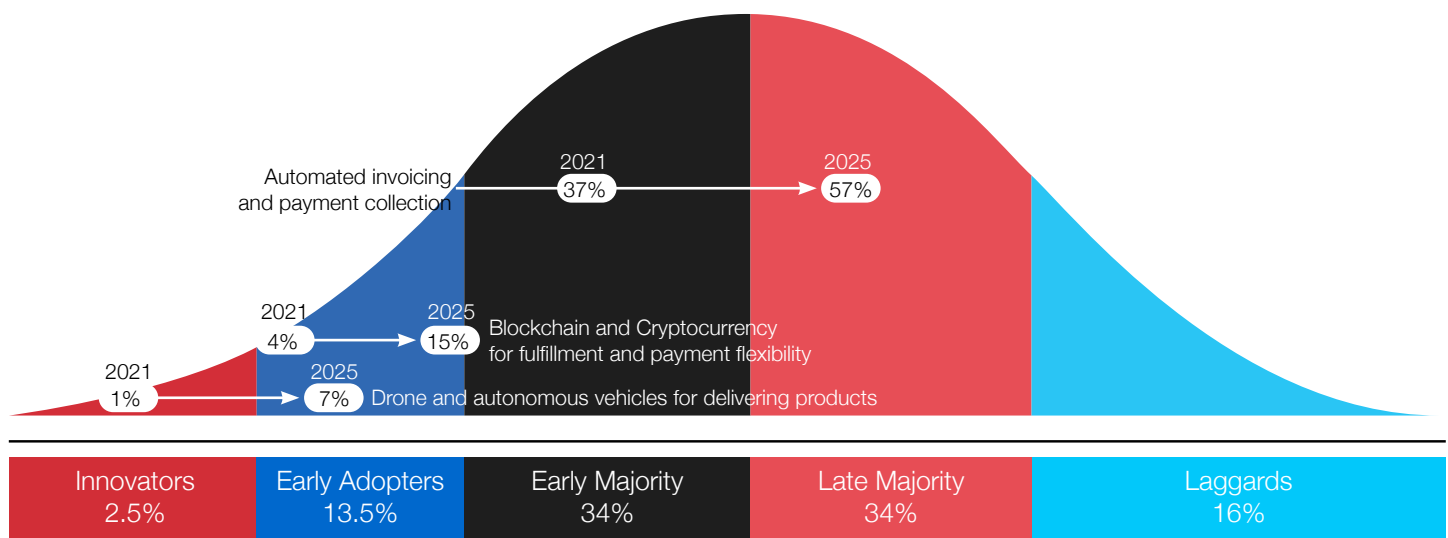
Recently, a wave of significant investment has been placed in areas of financial technology, especially in purchasing, payments and cash-equivalent transactions. Much like when automobile and appliance manufacturers transformed their industries by financing purchases in the 1970s, distributors are ripe for a major transformation by leveraging new technologies that automate financial transactions, eliminate paper and leverage financial resources.

Here's a look at the advanced technologies supporting invoicing/payment:

Automated Invoicing and Payment Collection

Most business customers require credit terms as a prerequisite to doing business. Most regular purchases are too large to rely on standard credit cards and even check processing is cumbersome and includes significant financial risks. The administrative processes required to manage paperwork for customer orders and procurements from suppliers is labor-intensive, time-consuming and error-prone. A better way to manage financial processes is to integrate technology solutions that automate them. By reducing staff resource time, this frees resources that can be dedicated to more important and valuable tasks, resulting in increased sales, customer satisfaction and profitability.

Chart 7: New Technology Importance: Fulfillment and Invoicing/Payment



In some cases, with the largest customers, technologies such as EDI have been used to implement transactions electronically. However, most customers do not have the capability and scale requirements to justify EDI implementations. Consequently, distributors have looked for alternatives. Since most orders are submitted using email and fax, an effective place for automating the purchasing and payment invoicing has been simple tools that can integrate with existing purchase order and invoice systems. With a new generation of payment technologies, distributors can further simplify the order-to-cash and procurement-to-payment workflows, including the final steps of actual funds transfer through the financial system. New payment and cash collection technologies also eliminate paper and redundant process steps along the way; they are a powerful way to increase efficiencies for the distributor and to pass the savings on to the customer.

Cryptocurrency

For distributors and manufacturers, we are seeing interest in new payment technologies and platforms. High-profile manufacturers such as Tesla have touted plans to accept purchase payments for their cars in Bitcoin or other cryptocurrencies. And we are seeing traditional financial institutions and investment funds engaging in early trials of allowing cryptocurrencies as a format for storing cash value and using it for payments, as well as speculating and hedging investment opportunities. While we anticipate that eventually businesses of all types will have some capabilities to hold, transact and exchange cryptocurrency along with other nontraditional ways to store currency and make purchases electronically, recent events and announcements cast some doubt on how soon this will be mainstream and, in some cases, whether it is likely.

For example, many governments and central banks, starting with China, recently banned financial institutions from transacting in cryptocurrency. Also, recent attention to the amount of energy required to mine cryptocurrency has caused companies, financial institutions and even governments to step in and restrict cryptocurrency activities altogether as sustainability and hidden costs have become an issue. Although these issues are being addressed, the future of cryptocurrency is uncertain.

Blockchain

While cryptocurrency is often uttered in the same breath as blockchain, blockchain offers a much broader solution to complex problems within supply chains. It provides a simple way to automate supply-contract terms with unique abilities to trace products and components through the entire supply chain to prevent fraud and ensure compliance with regulatory issues. It can also be used to streamline and accelerate business processes such as for auditing or regulatory financial reporting.

Less than 5% of distributors have any experience with blockchain or cryptocurrency. Both technologies remain in the Innovator stage of technology adoption.

A possible role for blockchain and cryptocurrencies will be to enable alternatives to conventional cash instruments and credit facilities. In addition to treating cryptocurrencies as another method for holding and exchanging value, the blockchain aspect may be exploited to control how contracts are managed throughout the complete lifecycle.

Stage 5: Support

Instead of treating the customer relationship as just a purchase transaction or group of transactions that ends when payment trades hands, the new mandates of ensuring business outcomes for the customer organization necessitate a strong follow-through. Only when the customer is satisfied will they continue to purchase products and services, or increase spend, instead of seeking out competitors and other alternatives.

Technologies that enable follow-on support activities, such as training, product returns and customization are powerful ways to differentiate, compete and solidify a relationship with the customer. Any technology that allows a customer to easily self-serve a more complete solution will benefit all parties.

Next Steps

A landmark report by Bain & Company from 2005, “Closing the Delivery Gap,” is still often cited as indicative of the significant gap between what companies believe they deliver to their customers effectively, and the perception of the actual customers. In this study, over 80% of companies believed they were delivering as well or better than what they customers expected, whereas only 8% of customers agreed.

We’ve seen the same phenomenon in distribution. The idea of Customer Experience elevates what’s measured to the overall impression by the customer throughout the entire customer journey. Some surveys indicate that over 85% of customers would pay more for a better customer experience, from shopping and buying to the support after the sale.

Because customers experience more through digital platforms now compared with just a few years ago, we expect advanced technologies will be critical to establishing, maintaining and improving the overall experience for customers long into the future. Already, digitally mature competitors are gaining share, and customers are quickly shifting to digital shopping and buying. That disruption is accelerating, with marketplaces proliferating, and product availability and fulfillment now commoditized. Supplier power is growing, and with it, a growing risk of forward integration and preference for alternate channels.

Those who win in this new market will prioritize and deploy some of the new technologies outlined in this report over the next few years to support the customer journey. In turn, these new technologies will help provide a superior customer experience.

Resources from Distribution Strategy Group

[Distributors: You're Doing Marketing Wrong, and It's Going to Cost You](#)

[Digital or Die: The Time is Nigh for Distributors to Embrace eBusiness](#)

[COVID-19 and the Rush to Buy Online in B2B: Is Your Business Ready?](#)

[How B2B Decision-Makers Are Responding to the Coronavirus Crisis \(McKinsey\)](#)

[AI vs. BI in Sales: Why Distributors Should Choose Artificial Intelligence](#)

[How Technology Enables Sales Reps Instead of Replacing Them](#)

About This Research

This research was conducted by Distribution Strategy Group. The research included an online survey taken by 267 participants across a variety of sectors. There was greater participation from industrial, electrical, safety, HVACR, building materials, hardware, chemical and plastics, oil and gas products, and plumbing. Other participating sectors include: power transmission/bearings, pharmaceutical, grocery/foodservice, jan-san, pulp and paper, electronics, along with several others.

About 42% of respondents represent small companies with less than \$50 million revenue. About 39% are mid-market with \$50 million to \$500 million, 12% are large with more than \$500 million revenue. The remaining 7% did not disclose the revenue range.

This report would not be possible without our survey participants.

Further thanks goes out to our sponsors epaCube, Conexiom, Epicor and Unilog.

B2B Distribution Pricing, Profitability, Cost Management Solutions

Our epaCUBE solutions are **"Built by Distributors for Distributors"** to be the leading profit optimization and cost side management solutions in the distribution industry.

Our team is comprised of former B2B Distribution Leaders with extensive cost and price side management experience who have developed with our distributor partners a complete suite of services.

With our industry leading Pricing Optimization and Product Data Management solutions you can manage your entire workflow in just a few clicks.

| Customer Target Segm | | GP Distribution | Historical | | | | | Opportunity ↓ |
|----------------------|---|-----------------|------------------|----------------|---------|--------|-----------|----------------|
| | | | Revenue | Margin | Rebates | GM% | Override% | |
| 1 | A | | \$11,220,853.... | \$2,850,313.19 | \$0.00 | 25.40% | 11.29% | \$1,052,440.84 |
| 2 | B | | \$5,644,469.04 | \$1,673,398.56 | \$0.00 | 29.65% | 34.98% | \$599,418.13 |
| 3 | C | | \$3,179,242.66 | \$924,389.25 | \$0.00 | 29.08% | 25.33% | \$318,846.43 |
| 4 | D | | \$2,714,337.24 | \$928,154.74 | \$0.00 | 34.19% | 28.39% | \$283,998.81 |

ePO - Pricing Optimization - Our price optimization software solutions combined with our **concierge support** delivers a complete package. We help your team find profit and sales driving programs to improve your bottom line.

| Analysis | Customer | Product | Priced On | Terms | Remaining | Margin/Sal. | GP Opportunity | #Tms | #Orders | #Orders | #Cust. | #Prod. |
|----------|---|--|---------------------------|---|--------------|---------------------------|-------------------|------|---------|---------|--------|--------|
| 1 | 182610 READING BAKERY SYSTEMS (182610) | P-AB772 | Percent (%) Unknown () | ID: 27823 Type: 2 Levels: 38.750;0.00;0.00;0.00 Effective: 2015-01-01 → 2020-12-31 | 16 days left | \$642.86 \$3,214.31 | 20.0% \$357.15 | 1 | 0 | 1 | 1 | 1 |
| 2 | 11002 ACBIO (11002) | P-00000783510all | Percent (%) Unknown () | ID: 36682 Type: 2 Levels: 18.0;0.0;0.0;0.0;0.0 Effective: 2007-11-01 → 2020-12-31 | 16 days left | \$345.56 \$5,253.33 | 18.0% \$199.57 | 44 | 0 | 2 | 1 | 14 |
| 3 | 182610 READING BAKERY SYSTEMS (182610) | P-HECW5 | Percent (%) Unknown () | ID: 13322 Type: 2 Levels: 34.750;0.0;0.0;0.0;0.0 Effective: 2008-03-01 → 2020-12-31 | 16 days left | \$381.37 \$2,533.96 | 15.0% \$191.09 | 6 | 0 | 0 | 1 | 0 |
| 4 | 47400 PORTLAND (47400) | P-AB545 | Percent (%) Unknown () | ID: 12353 Type: 2 Levels: 19.750;0.0;0.0;0.0;0.0 Effective: 2008-01-01 → 2021-01-01 | 47 days left | \$1,860.26 \$10,284.46 | 18.1% \$115.79 | 4 | 0 | 0 | 1 | 2 |
| 5 | 130009 M TECH CONTROL COMP (130009) | WF75LP HE HEFF 475LP TYPE (300RVE ENCL) | Percent (%) Unknown () | ID: 28324 Type: 1 Levels: 37.330;0.0;0.0;0.0;0.0 Effective: 2016-03-14 → 2020-12-31 | 16 days left | \$26.25 \$279.85 | 11.6% \$98.74 | 1 | 1 | 1 | 1 | 1 |

eCM- Contract Management - The most effective Contract Management solution in B2B distribution for managing Customer Specific Pricing and Contracts.

eSA- Sales Assistant - Industry leading price guidance for your sales team at the order entry level can unlock profits and help you get paid for the value your deliver customers.

PDM- Product Data Management - We've been helping B2B Distributors manage their cost files from manufacturer partners efficiently using our software package for over 20 years.



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Industry Leading Data and Price Optimization Services backed by
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Turn Your Customer Experience into a Competitive Advantage with Sales Order Automation

Conexiom is a fully automated, purpose-built document automation solution that solves the shortcomings of RPA, OCR, and workflow technologies. Easy to implement and works perfectly with your customer's current ordering process.



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Automates the transformation of millions of electric documents, regardless of the format, complexity, or repeatability.



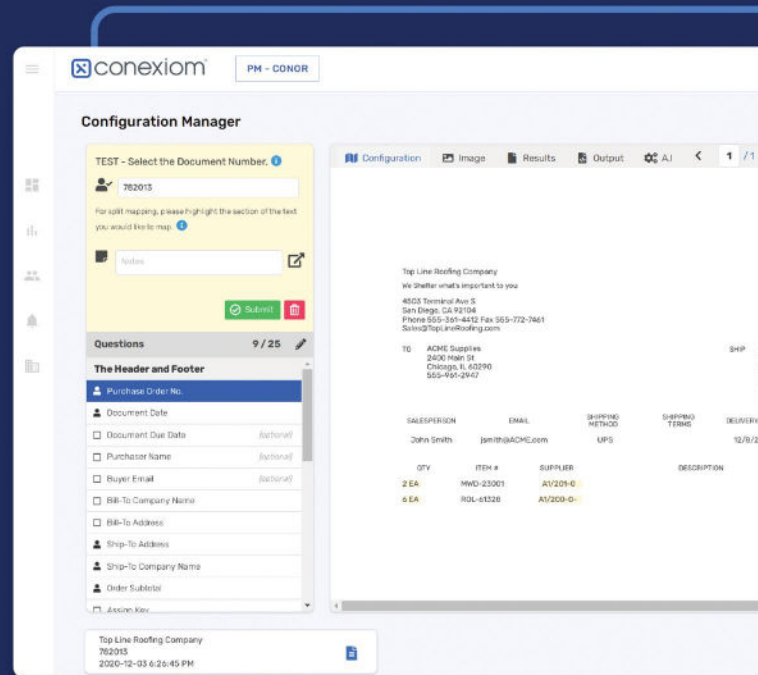
100% Data Accuracy

Documents are transcribed with 100% data accuracy at the line level, eliminating costly and error-prone mistakes caused by human error and typical of other automation solutions.



Touchless Document Processing

1,400 proprietary machine learning algorithms eliminate all manual processing of documents and allows your team to focus on delivering greater levels of customer satisfaction.

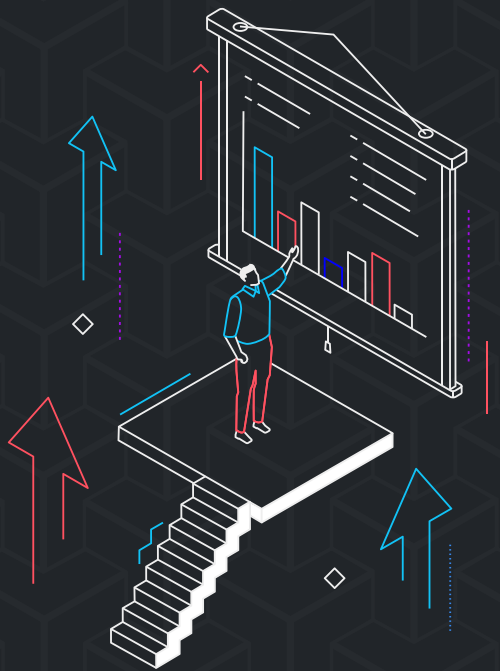


I can't imagine going back to what we did previously without Conexiom.

Andy K.
Full review on G2.com



Get up and running with Touchless Sales Order Automation in as soon as 30 days on **Conexiom.com**



How Distributors Use Technology to Drive Growth

The 2020 Epicor® Global Growth Report surveyed over 2,000 businesses across the globe. Here are the quick facts on business growth in distribution and how technology influences it.

Growth Stats



Almost 70% of distribution companies **saw growth** in the last 12 months.



Distribution leaders cite **planning and strategy** as the most significant positive influences on growth.



Distribution businesses believe **working more efficiently** and **having better technology** will help overcome growth challenges in the next 12 months.

Tech Facts



58% of distribution leaders believe they **can hire less experienced workers** by using modern technology.



Smart Supply Chain, Cloud Technology and **5G** are the top technologies the industry believes will have a direct impact on positive growth over the next 12-18 months.



85% of distribution companies report that **AI helped drive business growth**.



Roughly **50%** of distribution companies polled have been using **AI for 1-5 years**.



50% report that AI helps **reduce costs** and **40%** said it delivered **business value** in 6-12 months.

To read the full 2020 Global Growth Index report, visit epicor.com/growth.

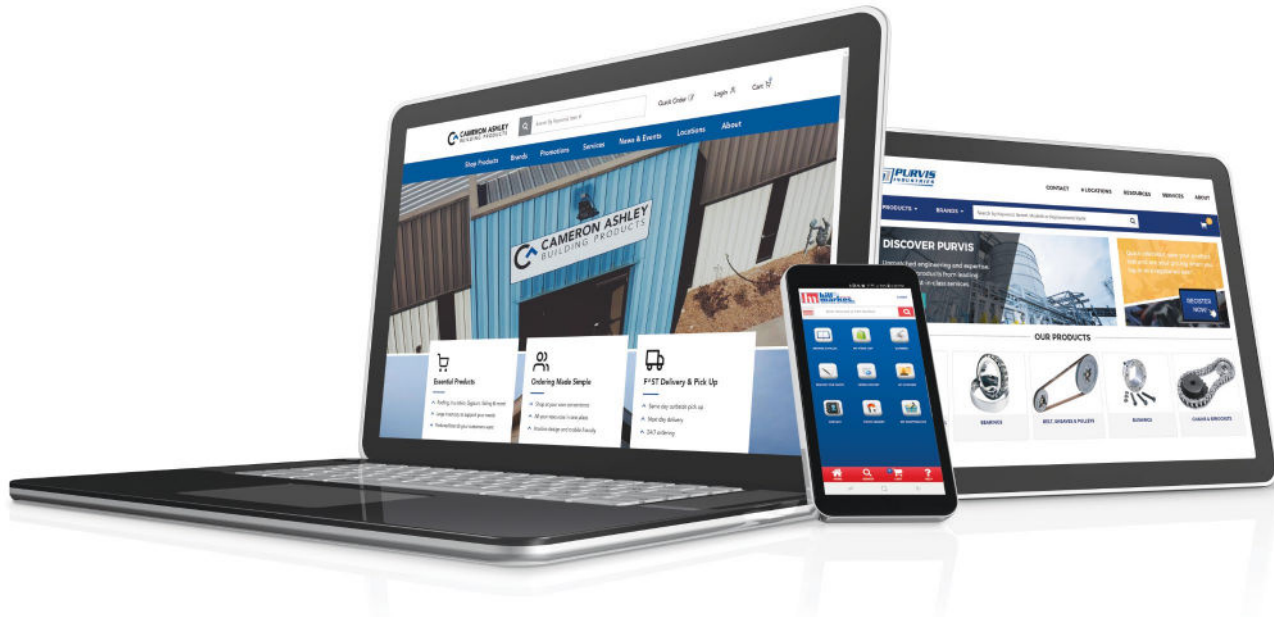
For information about Epicor Distribution ERP solutions, go to epicor.com/distribution.

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DISTRIBUTION STRATEGY **GROUP**

About Distribution Strategy Group

Distribution Strategy Group's thought leadership, research and consulting services are led by a team with decades of experience as senior operators in the distribution industry. They have since worked with more than 70 distribution companies to build a solid foundation to win in today's changing market.

Distribution Strategy Group offers strategic guidance for distributors in the face of disruption, including:

- Digital and ecommerce strategy
- Customer lifecycle management strategy
- Customer analytics
- Sales channel strategy

Contact us:

distributionstrategy.com | 303-898-8626 | contact@distributionstrategy.com