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REGION FOCUS: WORLDWIDE

# The Digital Customer Journey for Manufacturers

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# IDC Opinion

Global disruptions, such as geopolitical conflict or natural/environmental occurrences, continue to materially impact manufacturing supply chains, increasing costs and delays and altering investment priorities. At the same time, inflation and economic uncertainty are looming concerns across the manufacturing industry as margins continue to shrink. In addition, competition has never been higher across the industry as more companies compete for the same customer base. Staying on top of rapidly changing requirements and engaging with customers more effectively have become an imperative to compete in the digital age.

IDC surveyed more than 1,500 manufacturing leaders to explore the state of the manufacturing industry and uncover the strategic priorities of successful organizations as well as the impact of digital customer journey on getting ahead of their customers' needs. This IDC white paper highlights the results of the study and the overall takeaways—to more effectively meet customer experience (CX) goals, manufacturers need to embrace the right CX capabilities, modern cloud systems, and digital technology. Those further along on the maturity curve report higher increases in revenue and profitability.

# Methodology

The survey was completed in September 2022 and included 1,514 manufacturing respondents that were the primary decision makers or part of a team for digital customer journey and commerce transformation for their organization. This includes reimagining customer engagement, better understanding customer requirements, improving product design and development, and/or better servicing products.

## Key demographics include:

- **Subsegments:** Industrial machinery (30%), automotive (19%), food and beverage (F&B) (18%), electronics (16%), CPG (9%), semiconductors (4%), and chemicals (4%)
- **Regions:** The United States (46%), Japan (13%), Germany (10%), the United Kingdom (8%), France (7%), Canada (5%), South Korea (4%), Spain (4%), and Benelux (3%)
- **Titles:** C-level (12%), VP (17%), director (43%), and manager (28%)
- **Functional groups:** IT (34%), manufacturing/production (24%), sales/marketing (17%), engineering (9%), finance (7%), field service (6%), and supply chain (4%)
- **Company size in revenue:** <$25 million (15%), $25 million to $100 million (24%), $101 million to $500 million (18%), $501 million to $2.5 billion (14%), $2.6 billion to $10 billion (13%), and >$10 billion (16%)

# Situation Overview

## The Growing Importance of CX in Manufacturing

Disruption has impacted all industries, and manufacturing has been among the hardest hit. This has served as a wake-up call for most in the industry to realize that change needs to occur, with less than 20% of manufacturers believing their business model is future-proofed (source: IDC's *Future Enterprise Resiliency Survey*, June 2022). In addition, growing competition and the commoditization of products have made differentiation a challenge impacting a manufacturer's ability to retain customers, grow revenue, or move into new markets. The ways customers research and purchase products are evolving. Today's buyers, including B2B and B2C manufacturers, want to research, shop, and order on their own terms and time—something manufacturers today are not well suited to deliver. A key component to staying competitive for all manufacturers is going to be the customer experience.

**Finding new ways to attract, engage, and satisfy consumers will be the hallmark of successful organizations—this importance is reflected when we look at the industry's top CX drivers (percentage of all respondents):**

- Improve customer satisfaction: 43.6%
- Increase sales/revenue: 42.1%
- Improve customer attraction/retention: 30.9%
- Improve/maintain competitive advantage: 25.7%
- Expand into new markets/segments/geographies: 20.7%
- Increase after-sales product-/service-related profits: 19.5%

From a regional perspective, North America's (NA's) CX initiatives are being driven more by customer satisfaction/attraction/retention, APAC is more likely to focus on the impact to improve sales/revenue, and EMEA (while placing importance on satisfaction/revenue) has a higher focus on expanding into new markets and after-sales profits. Subsegment differences do arise as well, with the F&B/CPG industry's close connection with consumers placing a priority on customer

**"With ecommerce, we have expanded into a larger customer base and therefore higher sales, which has helped our company grow and become smarter. Recently, we have started to evaluate customer preferences from different areas in a collective department."**

**Marketing Director**
Small Electronics Manufacturer

satisfaction/attraction/retention, while discrete manufacturing segments (auto, industrial manufacturing, electronics, and semiconductor) battling differentiation concerns result in CX initiatives more focused on gaining a competitive advantage, and chemicals segment see a higher focus on market expansion and increasing very thin postsales margins.

When examining the industry's revenue sources (see callout), it is no surprise to see direct sales as the avenue most commonly used by manufacturers. The industry has historically been averse to changes in how businesses operate, and while ecommerce is still a distant second for manufacturers as a whole, it is the revenue source expected to continue to grow the largest (with 63.7% expecting growth and only 11.5% expecting decrease). In fact, the average change expected by manufacturers was a 23.8% increase in online sales over the next two years, with an additional 44.2% of respondents expecting growth higher than 25%. There are variations in the average expected change by region (NA 31.1%, EMEA 18.9%, and APAC 10.9%) and by subsegment (F&B/CPG 30.3%, industrial manufacturing 25.4%, automotive 21.7%, electronics and semiconductors 20.5%, and chemicals 10.2%), but no matter how the data is sliced, the overall movement in business is shifting toward ecommerce. Manufacturers' business models themselves continue to shift, with the majority stating that they have both B2B and B2C aspects to manage. As manufacturing revenue sources continue to diversify, with growing emphasis on ecommerce/partners/marketplaces, companies that can get closer to and directly manage the relationship with their customers (and customers' customers) will be best suited to succeed.

Customer and market expectations for more personalized products, services, and experiences — as well as unanticipated events and sudden demand shocks — are driving change and creating opportunities for a company to transform how it

## Sale/revenue sources

(Percentage of manufacturing respondents):

- **Direct sales:** 65.7%
- **Direct ecommerce:** 38.7%
- **BDR teams:** 37.4%
- **Channel partners:** 35.3%
- **Third-party marketplace:** 29.6%

## Business model

(Percentage of manufacturing respondents):

- **B2B:** 32.8%
- **B2C:** 16.6%
- **B2B and B2C:** 50.6%

> We are focused on collecting and analyzing information to better understand customer contact points at affiliated stores. We are also planning new product strategy and customer experience based upon this analysis."
>
> **Marketing Manager**
> Large Auto Manufacturer

stays aligned with the market. Lean and other types of continuous improvement philosophies used by manufacturers will always be important. These methods have benefited companies as they pushed for operational excellence. However, the future of manufacturing is one that puts customer needs as the top priority. Manufacturers are beginning to realize the importance of digital products, services, and experiences to achieve resiliency. Customers today overwhelmingly prefer digital engagement channels, even for manufacturers that are primarily B2B. Customers are also increasingly expecting the same level of personalization, immersive experiences, and logistics that they are used to from omni-channel retailers. For manufacturing companies to succeed, delivering superior customer experiences is becoming increasingly important. Manufacturers must strive to reimagine how they engage customers, gain a better understanding of customer requirements, improve search and recommendation capabilities across all channels, and better service their offerings. Modernizing commerce offerings with strong self-service capabilities will be essential for manufacturers to strengthen customer relationships, no matter if they are B2B or B2C, or a combination of the two.

While it is clear that the industry must focus on digital customer journeys and commerce transformation, there is still a lot of room for improvement.

> We are in an important phase of our digital transformation (DX). We need to align DX road maps with our business goals; to do so, we are working with companies such as Google to achieve technology transformation within our enterprise."
>
> **VP of IT**
> Large Automotive Manufacturer

**In the survey, an overall maturity question was asked ranking each respondent's ability to manage customer journeys that included:**

- **Very limited** — We do not manage customer journeys or these are limited to functional silos.
- **Early stages** — We are starting to manage/design customer journeys and improving cross-functional collaboration as required by use cases.
- **Preconfigured** — We create and manage cross-functional journeys that are preconfigured, but we are only beginning to implement use cases to manage them end to end.
- **End to end** — We manage end-to-end customer journeys based on near-real-time customer behavior and contextual experiences.
- **Orchestrated** — We manage well-orchestrated customer journeys holistically and in real time across customers and the ecosystem that dynamically adapt to the user's experience, context, and needs.

When comparing the five maturity groups by metric performance numbers around revenue, profit, and online sales, it becomes clear the impact that CX initiatives can have on a business (see **Table 1**, next page).

**TABLE 1**

## Defining Maturity Levels and Metric Performance for Each Group

| Metric Performance | Very Limited | Early Stages | Preconfigured | End to End | Orchestrated |
|---|---|---|---|---|---|
| **Change in revenue (past 12 months)** | -3.30% | 5.5% | 8.6% | 11.0% | 13.5% |
| **Change in profit (past 12 months)** | -1.80% | 6.1% | 8.5% | 10.3% | 14.0% |
| **Change in online sales (next 2 years)** | 5.50% | 18.1% | 23.1% | 28.5% | 39.6% |
| **Number of respondents** | 208 | 347 | 368 | 334 | 257 |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

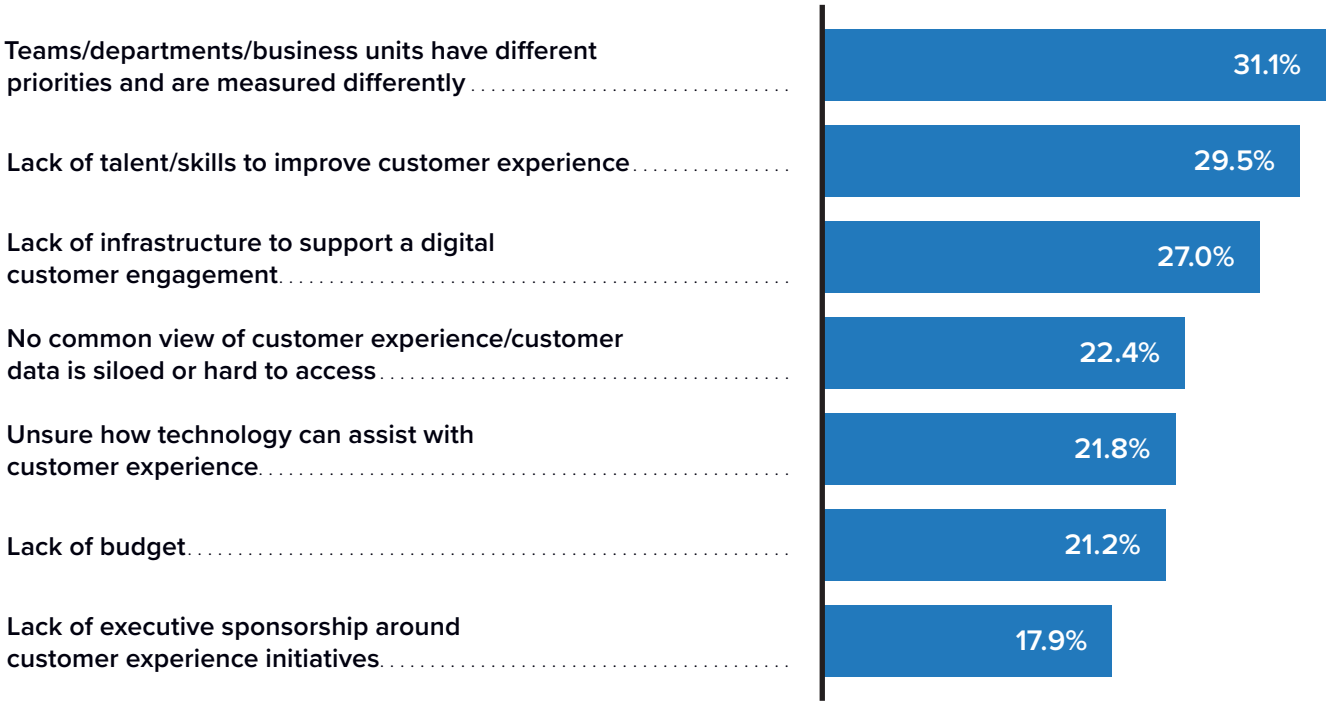
Another important differentiator between orchestrated manufacturers and their peers arises when comparing revenue sources. Across each of the channels cited previously, the most mature companies report the highest usage, with business development representative (BDR) teams, channel partners, and ecommerce being the avenues where these most mature organizations have the greatest advantage. Again, there are variations in maturity level depending on a respondent's region or subsegment, with the largest percentage of end-to-end and orchestrated respondents coming from NA (47.2%) and F&B/CPG and chemicals (both above 45%), but the Appendix includes the full results.

Customer expectations for digital experiences keep rising, with relevant and personalized content across all channels as the expectation. Organizations often struggle with increasing content requirements, more channels and touch points to manage, and rapidly changing customer needs, which require a company to be agile. Even though the industry realizes the importance and potential impact of digital customer journey and commerce transformation, there are many challenges that manufacturers face, not only in the initial adoption of technology but also in successfully deploying across the business. While there are consistent challenges that will come up in most discussions like trying to secure budget or convincing the business that change is needed, the larger issues can be traced to silos (both departmental and technological), legacy systems, and growing talent gaps (see **Figure 1**, next page).

FIGURE 1

## Top Challenges Holding Manufacturers Back

**What are your company's main challenges in transforming and improving your customer experience?**
(% of respondents)




n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

Personalized customer experiences are at a premium; and trying to ensure that these can be created at scale is often the stumbling block that many manufacturers encounter. A major inhibitor is the systems and processes being relied upon. The standard approach for many companies is manual/siloed systems, which are inefficient and cause delays. These legacy tools that are being relied upon currently are too cumbersome and inefficient to keep up with the digital economy. Modernizing IT infrastructure will be an important requirement for any manufacturer hoping to progress down the maturity path for CX. The issue of silos has existed for years across manufacturing but is becoming worse in today's data-rich world. However, silos extend to more than data and also affect organizational structure, staff, and processes. They result in lost productivity, exposure to unnecessary risk, opportunity cost, and substandard customer experiences. Integrating across systems and data sources allows for more information to be analyzed and better decisions to be made. It is critical for manufacturers to integrate across the business (sales, ecommerce, and marketing);

> We are focused on accumulating data for personalization of digital customers and increasing the proportion of non-face-to-face online commerce."
>
> **Engineering Manager**
> Medium-Sized
> Semiconductor Company

advanced integration capabilities of today's platforms allow for these systems to work together more easily than in the past.

The final challenge to note is the growing talent/skills gaps that manufacturers are facing. This is by no means a new issue faced by the industry; however, the COVID-19 pandemic accelerated talent issues as IDC has often heard issues with early retirements or furloughed workers not returning, but this labor problem is only going to get worse as time goes by. More workers will continue to reach retirement age and leave the business, and the knowledge gaps that are left behind are becoming impossible to fill. One of the key questions that need to be answered is, "What is the role of technology in combating growing skills gaps?" In an environment where finding labor and talent is a major challenge, it is critical for companies to know how to better train the people they do have and how to more effectively use technology to augment routine or repetitive tasks that can distract them from more value-added tasks.

# The Industry's Efforts to Improve CX in Manufacturing

**To better understand how manufacturers can improve customer experience across the new buying life cycle in manufacturing, the survey looked across three main stages:**

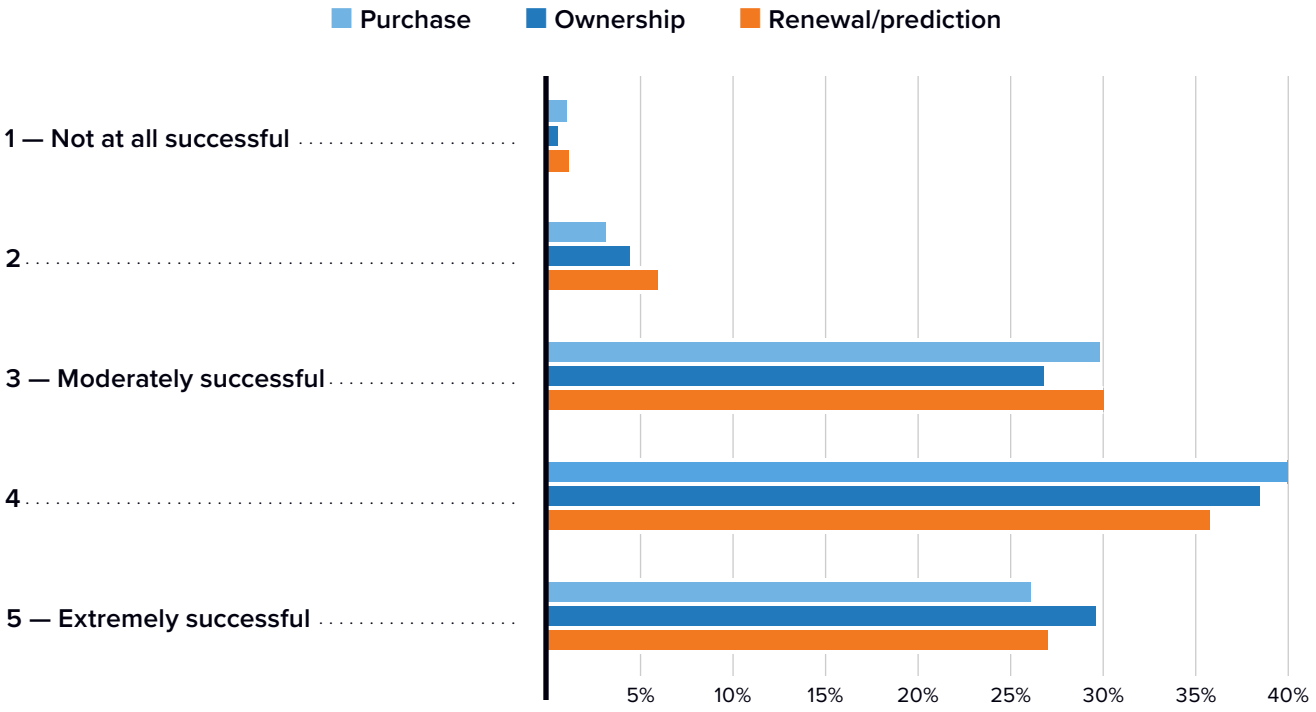
1. **Purchase** (all steps from problem identification to solution exploration and supplier selection)
2. **Ownership** (product utilization, customization, and feature extension)
3. **Renewal/prediction** (scaling product usage and maintenance)

In general, there remains an opportunity for most manufacturers to adopt more capabilities and better manage each stage, with the final stage in the life cycle, renewal, representing the area with the most potential growth for top customers (see **Figure 2**, next page).

FIGURE 2

## Effectiveness Across Each Buying Stage When Engaging Key Customers

(% of respondents)




n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022
For an accessible version of the data in this figure, see Figure 2 Supplemental Data in Appendix 2.

While progress has been made by the industry to better engage their key customers, only 25%–30% assess themselves as extremely successful across each stage. Most manufacturers still have room to improve the customer experience and there are many ways companies accomplish this for every buying stage.

### For manufacturers, the top strategies for each digital customer journey step they are investing in over the next 12 months include:

- **Purchase:** Improving engagement with customers by ensuring an omni-channel brand experience and rich product configuration/personalization (25.3% of all respondents; industrial manufacturing 30%, electronics and semiconductors 27%, automotive 26%, F&B/CPG 19.1%, and chemicals 14%)

Google Search and social media have transformed our brand awareness and sales. We continue to experiment with different digital avenues to increase brand recognition and revenue."

**IT Director**
Small Industrial Manufacturer

- **Ownership:** Developing integrated services that add value and open new revenue streams (43.3% of all respondents; electronics and semiconductors 48%, F&B/CPG 45%, automotive 44%, industrial manufacturing 40%, and chemicals 36%)
- **Renewal:** Creating customer portals that offer all necessary information including IoT sensor readings and predictive analytics (54.8% of all respondents; chemicals 63%, F&B/CPG 60%, industrial manufacturing 53%, electronics and semiconductors 53%, and automotive 52%)

The capabilities that manufacturers have in place also play a critical role in the success of CX initiatives, and given how much more successful the most mature organizations were, the natural question to ask is what those companies are doing to perform so well.

### Successful manufacturers are investing in:

- Providing an omni-channel brand experience
- Improving product searchability providing personalized product experiences
- Improving the renewal experience

## Meet Your Customers No Matter Where They Are

An important part of a customer's experience relies upon accurate and up-to-date product information, no matter the channel.

### The ability to provide this data was a key differentiator when comparing the most mature/successful manufacturers with their peers:

- **Very limited:** 38.3%
- **Early stages:** 46.4%
- **Preconfigured:** 52.2%
- **End to end:** 61.0%
- **Orchestrated:** 74.1%

# Understand Your Customers' Reality and Jobs to Be Done with AR/VR/3D Rendering

Another capability where orchestrated manufacturers had a clear advantage is in the usage of photo-realistic rendering and recommendations in product configuration (56.8% for orchestrated versus 27.5% for very limited). The final capability to note as an indicator of CX maturity is the integration of user profiles and preferences, with only 18.6% of the least mature manufacturers currently having this in place. This lack of integration between a customer and what they prefer makes a personalized experience impossible.

Product searchability plays an important role in enhancing brand awareness and the overall experience. Orchestrated manufacturers address this by using rich 3D and augmented reality (AR) directly in the search engine or on their website/mobile apps (73% of mature CX manufacturers). Their search functionality is further improved by allowing search on the go using connected IoT devices and integrating inventory information with online searches. As the buying journey continues to shift to digital avenues, these capabilities need to be utilized to make products easily searchable by customers. This becomes clear when we look at very limited organizations and their expectation of only a 5.5% increase in online sales over the next two years and the fact that 14.8% also stated they do not possess any of these product searchability capabilities.

> **By providing personalized experiences, customized service plans, and real-time data access, companies can meet changing customer expectations while uncovering more leads and improving retention/loyalty."**
>
> **IT Manager**
> Large Automotive Manufacturer

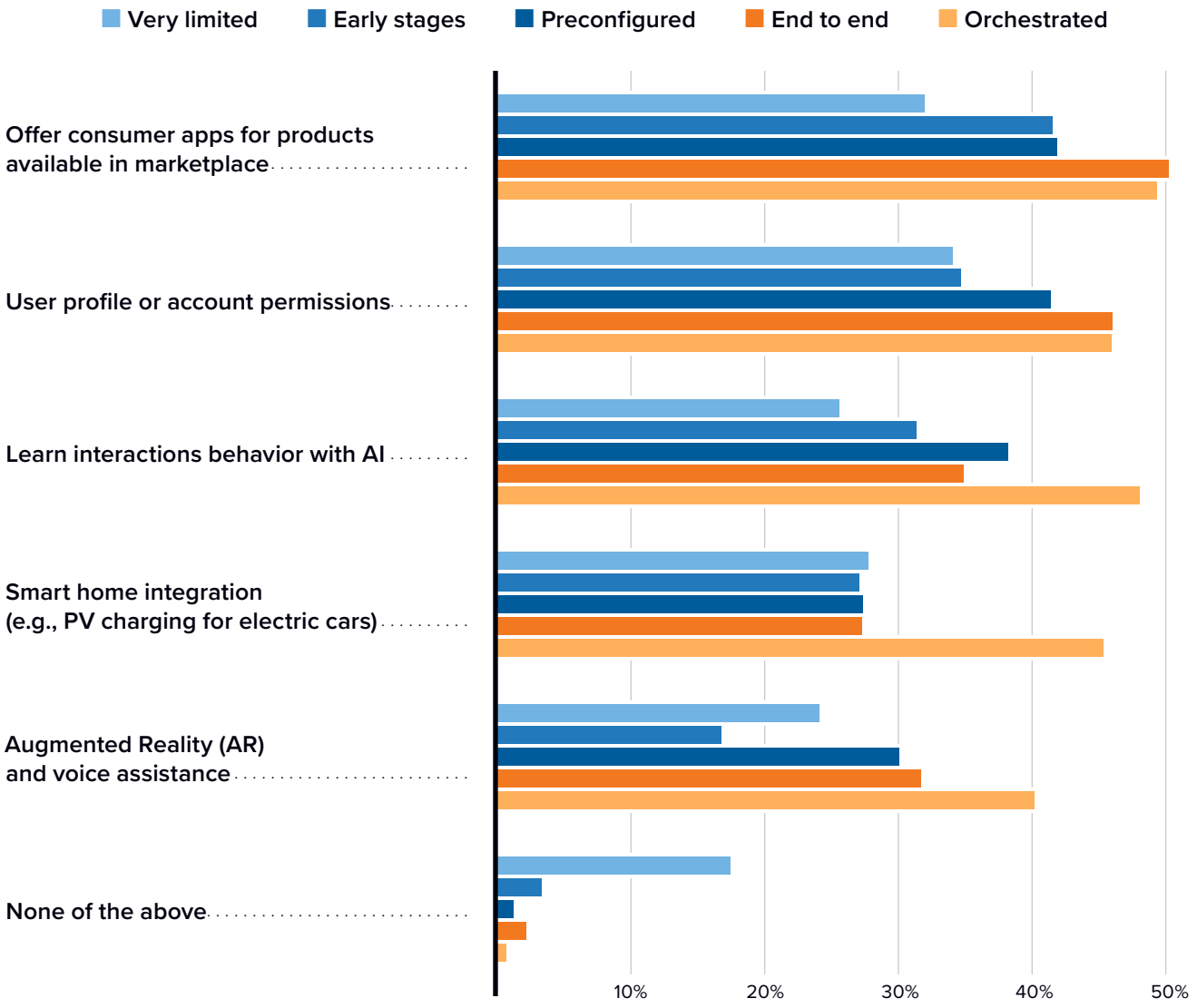
# Expanding Beyond Physical Capabilities to Meet Customer Needs

It is also important for manufacturers to personalize product experiences themselves. There are many ways that manufacturers can improve this aspect of the customer experience, but still, the majority of the industry has not yet adopted them. While offering consumer apps for products and using user profile information are effective ways to better personalize someone's experience, the areas where orchestrated companies have the greatest advantage revolve around the incorporation of the latest technology, such as artificial intelligence (AI), AR, and integration with smart home capabilities (see **Figure 3**, next page).

FIGURE 3

## Capabilities/Solutions Adopted for Personalized Product Experiences

(% of respondents)




n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022
For an accessible version of the data in this figure, see Figure 3 Supplemental Data in Appendix 2.

The final area to highlight CX maturity is the last stage in the buying cycle, and where the manufacturing industry as a whole can improve the most: improving the renewal experience. The capability with the highest adoption by manufacturers is enabling a real-time inventory ledger that provides a holistic view of inventory across the network using prebuilt, AI-/machine learning (ML)–based demand

planning technology. This type of capability has only become more important as disruption has become a constant across the industry; manufacturers that are better able to respond and adapt set themselves up for success in this challenging environment. In addition, historical and real-time contextual information can be utilized to further improve forecast accuracy. Both capabilities are adopted by the most mature organizations at the highest rates, with over two-thirds currently utilizing them. The biggest gaps between mature manufacturers and those with limited CX are around AI, smart home integrations, augmented reality, and voice assistance.

# Future Outlook

## The Path to Business Growth by Reimagining CX

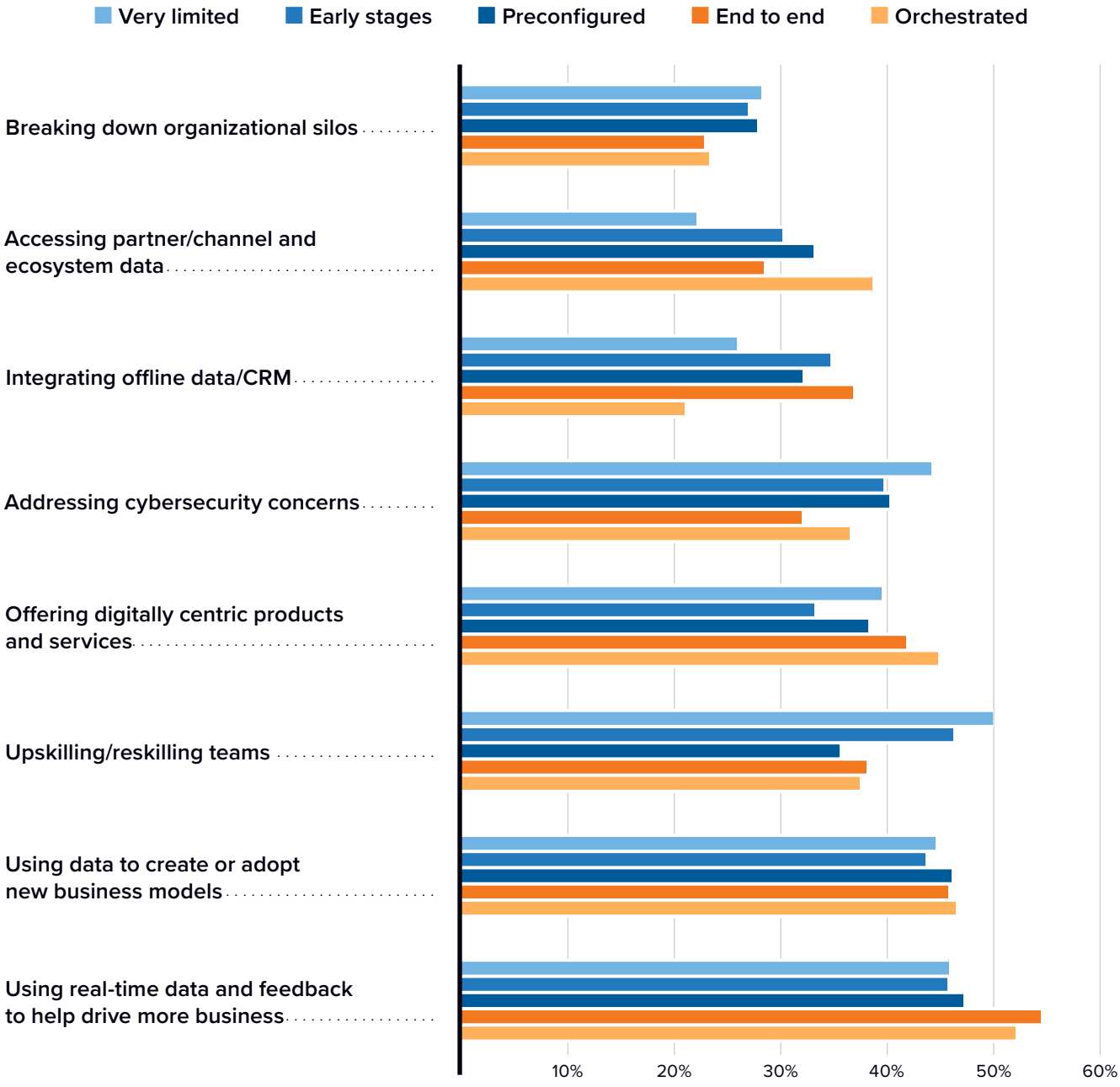
Transforming the customer experience will hinge on three key themes — illuminating data, applying intelligence to this information, and utilizing insights generated to create an immersive experience.

While work has been ongoing, disruption has led the industry to accelerate how it approaches digital customer journey and commerce transformation. Allowing for customers and prospects to engage more conveniently through digital channels has become a necessity. Creating and delivering exceptional experiences across an increasing amount of customer touch points can be slow and cumbersome without a digital foundation. The legacy nature of so many manufacturing organizations has led to data issues that must be addressed to achieve better manufacturing outcomes. When it comes to data priorities, the clear focus for manufacturing as a whole is on better utilization of data to increase business or shift business models themselves. An interesting split forms when examining data/integration priorities by maturity, with the most mature manufacturers showing greater focus on using data to innovate/improve their business, while the least mature organizations are more focused on addressing data barriers/challenges, such as cybersecurity and a lack of digital skills (see **Figure 4**, next page).

FIGURE 4

## First-Party Data/Integration Priorities by Maturity Level

**What are your top priorities around data and integration to drive better manufacturing outcomes?**
(% of respondents)




n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022
For an accessible version of the data in this figure, see Figure 4 Supplemental Data in Appendix 2.

**Data sources integrated for inventory management** (Percentage of manufacturing respondents):

- **Sales: 56.4%**
- **Supply chain: 49.9%**
- **Production: 49.8%**
- **Inventory: 42.6%**
- **Marketing: 38.3%**
- **Website: 37.0%**
- **Field service: 31.1%**

## Drive Full Data Transparency and Availability

For manufacturers, ensuring products are available when customers are ordering can be challenging to execute without the right level of data accuracy. There are many different data sources that can be integrated to improve inventory management (see callout). While sales, supply chain, production/capacity, and inventory/WIP data are natural areas for manufacturers to connect, there remains an opportunity to integrate commerce data sources (marketing/website) to improve CX even further. With value-added services becoming a growth engine for manufacturers and the renewal phase being the least successful for the industry currently, integrating field service data should become a priority as well.

Having access to real-time and integrated data is a good start, but there are many manufacturers struggling to utilize the amount of data they have currently, and, as more data gets connected, this data issue will only get worse. The important next step that manufacturers must focus on is applying intelligence to turn data into actionable insights. A hallmark of maturity level from the study is the usage of digital platforms and technology for CX initiatives. Across all platforms/applications listed in the survey, mature organizations were shown to have higher adoption rates than less mature organizations.

**"Our journey is still in progress. We have a lot of data silos, and we are about 75% complete in having this data integrated and available in real time to the right teams. This has resulted in the biggest improvements for us, especially customer retention."**

**IT Manager**
Medium-Sized Electronics Manufacturer

## Drive Insights in Real Time with AI/ML Technology

As SKUs expand to meet customer demands, digital platforms are better suited to adapt and scale as manufacturers change. Many manufacturers are dealing with staffing issues throughout functional groups, and utilizing digital technology is the most effective way to maximize a limited workforce. Automated tools help ensure employees don't have to worry about keeping up with manual or paper-based processes. This is especially true for marketing groups and a growing area targeted by manufacturers. The increased spending across the industry shows that marketing technology is being embraced to streamline the process and allow marketing activities to scale. These systems also usually include an analytics engine to generate additional insights and maximize the value of data. In addition, systems that can apply AI to assist with personalizing the customer experience can be transformative over the next few years as the technology continues to mature. When evaluating platforms, look for true digital commerce capabilities that can serve both B2B and B2C needs.

## Data and Systems Convergence in the Cloud

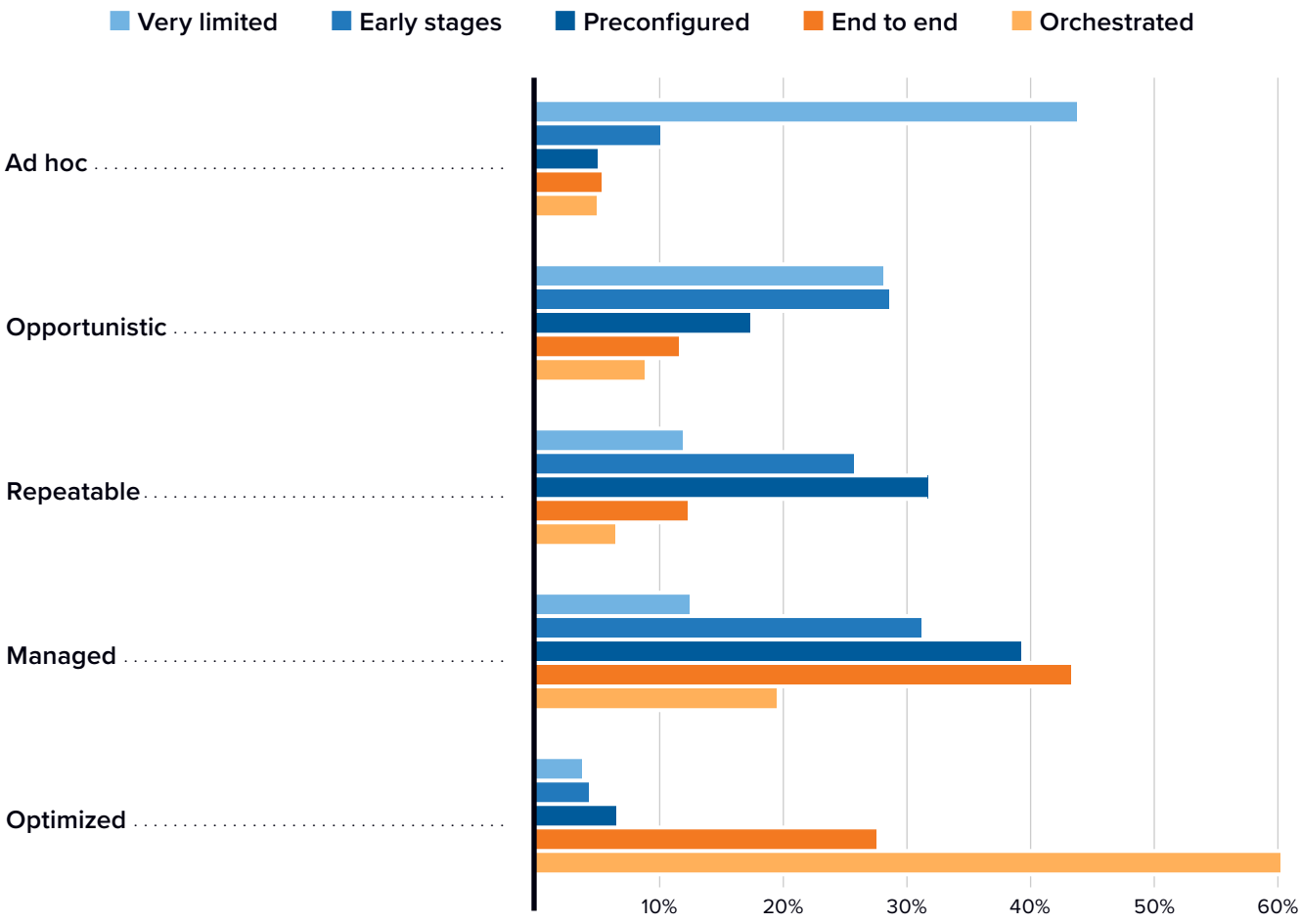
Time to market, total cost of ownership, flexibility and scalability, support, and a healthy partner ecosystem are all important factors that need to be considered when a manufacturer moves away from homegrown solutions. How these platforms are deployed is another important question to answer,

with manufacturers beginning to view cloud as the engine to drive tangible business outcomes and commerce transformation. Cloud technology and services for manufacturing can range from preconfigured applications on the cloud to proprietary platforms. The maturity of a manufacturer's cloud adoption journey is tightly linked to the CX maturity (see **Figure 5**).

**FIGURE 5**

## CX and Cloud Maturity Are Strongly Correlated

**How advanced is your company on its cloud adoption journey?**
(% of respondents)




n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022
For an accessible version of the data in this figure, see Figure 5 Supplemental Data in Appendix 2.

**The digital customer journey at my company is very broad and well developed with the roadblocks faced being cybersecurity and data governance issues. We are currently looking into improving our cybersecurity within the next couple of years and looking into AR/VR technology."**

**Director of IT**
Large CPG Company

**We need to develop AI and AR tools in a short period of time if we do not want to lose competitiveness and customer retention. By making a firm commitment and giving prominence to these channels, we should be able to differentiate ourselves and enter new markets."**

**IT Director**
Large Industrial Manufacturer

As manufacturers aim to become more market driven and better prepared to pivot, cloud's ability to optimize operations will become essential to long-term success. In addition, with the growing shift to a remote/hybrid workforce, allowing employees to collaborate no matter their location is enabled through cloud. A cloud platform also allows for manufacturers to always stay up to date and incorporate the latest functionality and innovation accelerators such as IoT, AI/ML, or augmented reality/virtual reality (VR). As the manufacturing industry continues to evolve at lightning speed, companies that break down silos and embrace modern technology will be the ones that thrive in this environment. Applying innovative technologies through the cloud is critical. The amount of data that can be analyzed in the cloud is where true value is generated, as manufacturers can now analyze large data sets and drive improvements across the enterprise. This benefit was highlighted in the study, with over 50% of the most mature cloud users stating they are extremely effective at applying predictive analytics and data-driven insights to inform experiences and operations versus only 11% of the least mature cloud users.

## Embracing Digital Platforms for CX Excellence

The last step that manufacturers need to take in their CX journey is to connect the digital and physical worlds and provide this intelligence in real time to create an immersive, personalized experience. For the most mature manufacturers, this included higher usage of platforms such as AR/VR-rich media interaction, CRM/omni-channel experience management, marketing content management, and chat/messaging/video capabilities. This technology provides an opportunity for manufacturers to respond to the constantly evolving needs of the consumer. If managed properly, the most mature organizations will be able to exceed customer expectations by providing a seamless and easy-to-use ordering experience for their customers. Manufacturers need to revamp their digital commerce capabilities to meet the buyer preferences for online researching, purchasing, and account management—especially as the share of digitally native buyers continues to grow. Manufacturers must also look for commerce capabilities that provide the flexibility to pursue different business models and go-to-market strategies, such as selling subscriptions, services, or machine-to-machine ordering.

Content management applications help the most mature manufacturers connect content and data to deliver the experiences customers expect. This provides marketing teams a platform to collaborate and track customer interactions through the life cycle. Having a central platform allows for metrics and KPIs to be standardized, monitored, and improved on a more consistent basis rather than on an ad hoc basis that many manufacturers rely on today. Personalization is also key to creating a differentiated experience that is more relevant and appealing to buyers. Being able to create personalized portals for distributors, wholesalers,

or retailers and allow them to order online with contract pricing and custom curated catalogs allows a buyer to have the most relevant experience when they interact with a company. Personalizing the customer experience is an area where AI has a massive opportunity to aid in the next few years. It is also important to apply these capabilities across the globe to capture additional revenue as emerging markets have the largest ecommerce growth rates. The siloed nature of manufacturers is another point to keep in mind; the industry must learn from the mistakes of the past. Digital commerce solutions cannot be viewed in isolation to the business' overall strategy and operations; integration with the other enterprise systems that manufacturers have in place (ERP, SCM, etc.) will be essential to providing a consistent customer experience.

When we look at capabilities and technologies that the most mature manufacturers have implemented, their exceptional metric performance does not come as much of a surprise. Another way to confirm the importance of these steps is to highlight the effectiveness ratings of their digital customer journey and commerce transformation initiatives.

**Based upon a 1–5 scale (where 1 = not at all effective and 5 = extremely effective), the most mature organizations average above 4 for each category, while the least mature averaged below 3 (moderately effective) across all categories:**

- Provide the right content/right time/right channel: 4.46 versus 2.90
- Build/monitor/utilize user profiles: 4.36 versus 2.64
- Ensure/maintain a single view of customer with understanding of behaviors/preferences/values: 4.36 versus 2.88
- Apply predictive analytics and data-driven insights to experiences/operations: 4.28 versus 2.57
- Focus on importance of customer data/analytics during CX: 4.41 versus 3.19
- Focus on importance of AI/ML during CX: 4.13 versus 2.67

# Conclusion

The buying patterns among consumers are shifting; this means that manufacturers need to evolve as well. Most in the industry have realized that they need to act, as spending on customer engagement applications is expected to continue to increase over the next 12 months because of benefits experienced around increased revenue, market penetration, and customer satisfaction/value.

There are manufacturers that have already started their journey and are outperforming their peers in terms of revenue, profits, and ecommerce sales. The most mature manufacturers have achieved this performance by utilizing CX capabilities, modern cloud systems, and digital technology at higher rates.

For those manufacturers that do not recognize that digital customer journeys and commerce transformation are now more important than ever, they risk being left behind by their peers that have made the switch.

# Appendix 1: Subsegment/Regional Charts

**Tables 1A and 1B** depict the top drivers for respondents by region/subsegment, while **Tables 2A and 2B** (page 23) illustrate the top challenges faced by region/subsegment, and **Tables 3A and 3B** (pages 24) cover the data/integration priorities by region/subsegment.

**TABLE 1A**

## Top Drivers by Region

| | APAC | EMEA | North America |
|---|---|---|---|
| Improve customer satisfaction | 38.2% | 38.3% | 48.7% |
| Increase sales/revenue | 48.9% | 42.4% | 39.5% |
| Improve customer attraction/retention | 25.9% | 26.3% | 35.4% |
| Improve/maintain competitive advantage | 28.4% | 25.3% | 25.1% |
| Expand into new markets/segments/geographies | 16.2% | 24.9% | 19.7% |
| Increase after-sale product/service-related profits | 11.7% | 23.2% | 19.9% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

**TABLE 1B**

## Top Drivers by Subsegment

| | Automotive | Industrial manufacturing | Electronics and semiconductor | F&B/ CPG | Chemicals |
|---|---|---|---|---|---|
| Improve customer satisfaction | 36.3% | 43.0% | 45.4% | 48.5% | 41.2% |
| Increase sales/revenue | 45.0% | 40.4% | 36.0% | 45.8% | 45.0% |
| Improve customer attraction/ retention | 24.2% | 31.9% | 29.2% | 37.4% | 19.5% |
| Improve/maintain competitive advantage | 27.9% | 31.6% | 26.8% | 16.9% | 24.0% |
| Expand into new markets/ segments/geographies | 22.3% | 21.3% | 20.2% | 18.3% | 28.5% |
| Increase after-sale product/ service-related profits | 19.3% | 19.2% | 21.4% | 17.5% | 26.0% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

TABLE 2A

## Top Challenges by Region

| | APAC | EMEA | North America |
|---|---|---|---|
| Teams/departments/business units have different priorities and are measured differently | 25.1% | 31.9% | 32.6% |
| Lack of talent/skills to improve customer experience | 28.8% | 26.4% | 31.7% |
| Lack of infrastructure to support a digital customer engagement | 14.1% | 27.5% | 31.1% |
| No common view of customer experience/customer data is siloed or hard to access | 20.2% | 23.5% | 22.6% |
| Unsure how technology can assist with customer experience | 24.7% | 22.1% | 20.6% |
| Lack of budget | 24.9% | 21.1% | 19.9% |
| Lack of executive sponsorship around customer experience initiatives | 14.7% | 17.2% | 19.4% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

TABLE 2B

## Top Challenges by Subsegment

| | Automotive | Industrial manufacturing | Electronics and semiconductor | F&B/ CPG | Chemicals |
|---|---|---|---|---|---|
| Teams/departments/business units have different priorities and are measured differently | 33.5% | 30.8% | 31.3% | 30.9% | 22.3% |
| Lack of talent/skills to improve customer experience | 26.7% | 33.3% | 27.7% | 28.9% | 26.2% |
| Lack of infrastructure to support a digital customer engagement | 23.4% | 30.4% | 24.7% | 27.8% | 23.1% |
| No common view of customer experience/customer data is siloed or hard to access | 18.5% | 27.2% | 26.3% | 17.7% | 19.1% |
| Unsure how technology can assist with customer experience | 20.5% | 19.1% | 26.5% | 21.7% | 28.4% |
| Lack of budget | 21.8% | 18.9% | 14.7% | 27.2% | 23.1% |
| Lack of executive sponsorship around customer experience initiatives | 16.8% | 16.1% | 17.7% | 21.2% | 15.6% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

TABLE 3A

## Top First-Party Data/Integration Priorities by Region

| | APAC | EMEA | North America |
|---|---|---|---|
| Using real-time data and feedback to help drive more business | 42.9% | 49.4% | 51.3% |
| Using data to create or adopt new business models | 48.2% | 41.8% | 46.5% |
| Upskilling/reskilling teams | 53.3% | 44.3% | 33.9% |
| Offering digitally centric products and services | 42.7% | 36.1% | 40.1% |
| Addressing cybersecurity concerns | 39.6% | 38.6% | 36.9% |
| Integrating offline data/CRM | 28.4% | 33.1% | 31.2% |
| Accessing partner/channel and ecosystem data | 25.8% | 30.9% | 32.3% |
| Breaking down organizational silos | 19.2% | 25.7% | 27.8% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

TABLE 3B

## Top First-Party Data/Integration Priorities by Subsegment

| | Automotive | Industrial manufacturing | Electronics and semiconductor | F&B/ CPG | Chemicals |
|---|---|---|---|---|---|
| Using real-time data and feedback to help drive more business | 49.4% | 52.8% | 47.1% | 46.1% | 51.8% |
| Using data to create or adopt new business models | 39.5% | 49.8% | 49.0% | 41.9% | 45.6% |
| Upskilling/reskilling teams | 43.4% | 43.3% | 37.9% | 35.9% | 48.7% |
| Offering digitally centric products and services | 36.4% | 39.1% | 41.3% | 40.3% | 40.4% |
| Addressing cybersecurity concerns | 40.6% | 41.0% | 36.1% | 35.1% | 27.8% |
| Integrating offline data/CRM | 28.4% | 30.3% | 31.3% | 34.9% | 32.0% |
| Accessing partner/channel and ecosystem data | 36.5% | 23.0% | 30.8% | 35.7% | 28.6% |
| Breaking down organizational silos | 25.9% | 20.8% | 26.5% | 30.2% | 25.1% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

**Table 4** highlights the customer journey of respondents by region/subsegment, and **Table 5** (next page) shows the importance of AI/ML by region/subsegment.

TABLE 4

## Customer Journey by Region/Subsegment

| | Very Limited | Early Stages | Preconfigured | End to End | Orchestrated |
|---|---|---|---|---|---|
| North America | 9.8% | 18.0% | 24.9% | 28.5% | 18.7% |
| EMEA | 8.5% | 22.4% | 27.1% | 28.3% | 13.6% |
| APAC | 30.7% | 26.9% | 19.1% | 12.3% | 11.0% |
| Automotive | 19.4% | 18.1% | 23.0% | 20.6% | 19.0% |
| Industrial manufacturing | 11.5% | 26.7% | 20.9% | 28.3% | 12.6% |
| Electronics/semiconductors | 12.2% | 18.0% | 24.5% | 26.6% | 18.7% |
| F&B/CPG | 15.5% | 19.6% | 24.5% | 23.4% | 17.0% |
| Chemicals | 7.6% | 14.4% | 28.8% | 41.7% | 7.5% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

TABLE 5

## Importance of AI/ML by Region/Subsegment

| | Not at All Important — 1 | 2 | Moderately Important — 3 | 4 | Extremely Important — 5 |
|---|---|---|---|---|---|
| North America | 8.1% | 7.6% | 19.4% | 33.8% | 31.2% |
| EMEA | 8.1% | 8.2% | 24.4% | 29.2% | 30.1% |
| APAC | 20.0% | 14.1% | 33.5% | 18.3% | 14.0% |
| Automotive | 11.3% | 8.5% | 25.8% | 31.0% | 23.4% |
| Industrial manufacturing | 10.2% | 9.0% | 19.4% | 32.9% | 28.5% |
| Electronics/semiconductors | 12.8% | 13.7% | 23.5% | 17.6% | 32.4% |
| F&B/CPG | 7.2% | 5.4% | 16.5% | 19.7% | 14.9% |
| Chemicals | 12.7% | 22.8% | 22.9% | 26.1% | 15.5% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

# Appendix 2: Supplemental Data

The tables in this appendix provide an accessible version of the data for the complex figures in this document. Click "Return to original figure" below each table to get back to the original data figure.

### FIGURE 2 SUPPLEMENTAL DATA

## Effectiveness Across Each Buying Stage When Engaging Key Customers

| | Purchase | Ownership | Renewal/prediction |
|---|---|---|---|
| **1 — Not at all successful** | 1.1% | 0.6% | 1.2% |
| **2** | 3.2% | 4.5% | 6.0% |
| **3 — Moderately successful** | 29.8% | 26.8% | 30.0% |
| **4** | 39.9% | 38.4% | 35.7% |
| **5 — Extremely successful** | 26.1% | 29.6% | 27.0% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

Return to original figure

### FIGURE 3 SUPPLEMENTAL DATA

## Capabilities/Solutions Adopted for Personalized Product Experiences

| | Very limited | Early stages | Preconfigured | End to end | Orchestrated |
|---|---|---|---|---|---|
| **Offer consumer apps for products available in marketplace** | 32.0% | 41.5% | 41.9% | 50.2% | 49.3% |
| **User profile or account permissions** | 34.1% | 34.7% | 41.4% | 46.0% | 45.9% |
| **Learn interactions behavior with AI** | 25.6% | 31.4% | 38.2% | 34.9% | 48.0% |
| **Smart home integration (e.g., PV charging for electric cars)** | 27.8% | 27.1% | 27.4% | 27.3% | 45.3% |
| **Augmented Reality (AR) and voice assistance** | 24.1% | 16.8% | 30.1% | 31.7% | 40.2% |
| **None of the above** | 17.5% | 3.4% | 1.3% | 2.3% | 0.8% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

Return to original figure

# Appendix: Supplemental Data (continued)

## FIGURE 4 SUPPLEMENTAL DATA

### First-Party Data/Integration Priorities by Maturity Level

| | Very limited | Early stages | Preconfigured | End to end | Orchestrated |
|---|---|---|---|---|---|
| Breaking down organizational silos | 28.2% | 26.9% | 27.8% | 22.8% | 23.3% |
| Accessing partner/channel and ecosystem data | 22.1% | 30.2% | 33.1% | 28.4% | 38.6% |
| Integrating offline data/CRM | 25.9% | 34.7% | 32.1% | 36.8% | 21.0% |
| Addressing cybersecurity concerns | 44.1% | 39.6% | 40.2% | 32.0% | 36.5% |
| Offering digitally centric products and services | 39.5% | 33.2% | 38.2% | 41.8% | 44.8% |
| Upskilling/reskilling teams | 49.9% | 46.2% | 35.5% | 38.1% | 37.4% |
| Using data to create or adopt new business models | 44.5% | 43.6% | 46.0% | 45.7% | 46.4% |
| Using real-time data and feedback to help drive more business | 45.8% | 45.6% | 47.1% | 54.4% | 52.0% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

Return to original figure

## FIGURE 5 SUPPLEMENTAL DATA

### CX and Cloud Maturity Are Strongly Correlated

| | Very limited | Early stages | Preconfigured | End to end | Orchestrated |
|---|---|---|---|---|---|
| Ad hoc | 43.7% | 10.1% | 5.1% | 5.4% | 5.0% |
| Opportunistic | 28.1% | 28.6% | 17.4% | 11.6% | 8.9% |
| Repeatable | 11.9% | 25.7% | 31.7% | 12.3% | 6.5% |
| Managed | 12.5% | 31.2% | 39.2% | 43.2% | 19.5% |
| Optimized | 3.8% | 4.4% | 6.6% | 27.5% | 60.1% |

n = 1,514; Source: IDC's *Manufacturing Customer Experience Survey*, September 2022

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# About the IDC Analyst

**Reid Paquin**
**Research Director, IDC**

Reid Paquin is research director for IDC Manufacturing Insights, responsible for the IT Priorities & Strategies (ITP&S) practice. Reid's core research coverage includes IT investments made across the manufacturing industry and manufacturers' progress with digital transformation. Based on his background covering the manufacturing space, Reid's research also includes an emphasis on the technology enablers that help manufacturing executives make better-informed operational decisions.

More about Reid Paquin

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