

IDC MarketScape

IDC MarketScape: Worldwide Manufacturing Customer Experience Systems Integration 2018 Vendor Assessment

Heather Ashton

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Manufacturing Customer Experience Systems Integration Vendor Assessment



Source: IDC, 2018

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IDC OPINION

This IDC study represents the vendor assessment model called IDC MarketScape. This research is a quantitative and qualitative assessment of the characteristics that explain a vendor's success in the IT systems integration for customer experience in manufacturing marketplace and help assess current and anticipated performance in the marketplace. A companion to this document is *IDC MarketScape: Worldwide Manufacturing Customer Experience IT Strategic Consulting 2018 Vendor Assessment* (IDC #US42727917, forthcoming). This study assesses the capability and business strategy of 11 of the prominent IT service providers for systems integration and other IT services related to customer experience (CX) in the manufacturing industry. This evaluation is based on a comprehensive framework and set of parameters expected to be most conducive to success in providing IT services for CX in both the short term and the long term. Key findings include:

- Customer experience in manufacturing, as defined in the Market Definition section, is one of the pillars of digital transformation (DX), and it is a strategic priority in IDC's worldwide digital transformation use case taxonomies for the manufacturing industry.
- While all 11 vendors included in this IDC MarketScape bring notable capability to the space, they offer varying approaches to CX and its subcategories.
- Customer experience IT service providers have invested in delivery centers on a global scale that are specific to both customer experience and user experience (UX) and that incorporate many of the 3rd Platform and innovation accelerators as defined by IDC, including cloud, mobile, social, and big data and analytics as well as augmented reality (AR) and virtual reality (VR), artificial intelligence (AI), robotics, Internet of Things (IoT), and cybersecurity.
- The criteria used in the IT systems integration vendors for CX in manufacturing IDC MarketScape (and the resulting position in Figure 1) are across dual dimensions of strategy (future plans and where the vendor is headed) and capability (where the vendor is today in terms of capabilities). Each of the elements within strategy and capability is then assigned a weighting based on the relative importance of each criterion in the opinion of IDC Manufacturing Insights and feedback from manufacturing customers.
- The results of this study reveal differences in experience by subindustry and delivery approach, and this information can be useful to manufacturers as they evaluate IT service providers for systems integration and other services engagements that encompass customer experience. How the vendor locates resources and what industries are most heavily represented in its customer list are two useful points of information.
- This IDC MarketScape is a starting point for manufacturers that are evaluating IT services vendors for help with implementation of CX projects. It is a "short list," if you will – a way to initially winnow down the long list of providers that exist in the marketplace. It does not replace the "due diligence" that companies must then complete to select the ultimate vendor for assistance in a customer experience initiative.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

Customer experience management is a broad topic and still evolving in maturity as an adopted practice by manufacturers worldwide. For the purposes of this IDC MarketScape, and any subsequent research on the topic from IDC Manufacturing Insights, we are defining customer experience to include a combination of services, applications and, in some instances, infrastructure to support the customer-facing business processes within an organization (e.g., sales, marketing, customer service, and contact center). Collectively, these applications serve to manage the entire life cycle of a customer

(including the process of brand building, conversion of a prospect to a customer, and the servicing of a customer) and help an organization build and maintain successful relationships.

There are dozens of IT service providers that offer systems integration and implementation services around the business processes that comprise customer experience. For the purposes of this IDC MarketScape, we are focusing on the notable players with annual revenue of at least \$1 billion and manufacturing-specific revenue of \$500 million that offer IT services for a portfolio of CX processes and related applications.

It is important to note that not accepting inclusion in the IDC MarketScape does not imply a lack of capability; there are many reasons for not participating, including simply a lack of resources to complete the RFI or conduct a briefing. Those companies that accept our invitation to participate often do so because this technology area is of certain strength to them.

ADVICE FOR TECHNOLOGY BUYERS

- **Understand how the service providers structure their interactions and populate the project teams.** In countless interviews with manufacturers, there was consistent advice to ensure that the way the service firms balanced onshore needs with offshore resources matched what the manufacturer needed. This approach varies by the service providers, and it is worth an extensive discussion up front to be certain the right expectations are established to support the initiative. Along the same lines, understanding the level of expertise and even identifying the key team members at the outset will support ultimate success.
- **Pay attention to industry-specific domain knowledge.** Within customer experience practices, service providers have built deep industry expertise across certain business processes, whether they are user experience design or customer journey mapping. This combination of industry-specific needs and deep process understanding enables them to identify and recommend "best practices" that are industry specific. Therefore, understanding how the service providers addresses the business process within your industry segment is essential.
- **Evaluate depth and experience within specific CX categories.** While all of the vendors in this IDC MarketScape exhibited very good to excellent breadth of experience across CX categories, across a given category, many of them have only completed 2-3 projects in the past several years versus the gold standard of more than 20 in a given category. Manufacturers IDC interviewed cautioned prospective customers to understand the level of experience in a given category and avoid the dangers of "learning on the job" that can come with relative inexperience in a specific CX category. In these cases, consider how to work with the service providers to craft an arrangement that reflects the learning curve. Gainshare and shared IP models have both been favorable options.
- **Understand the delivery infrastructure the service providers offer.** Given the global nature of most manufacturers' businesses, and the potential for many CX projects to span geographies, it is important to understand what resources service providers have located in each region, including delivery centers and domain-specific FTEs. In addition, a number of service providers have built centers of excellence (COEs) around various CX and innovation accelerator domains.
- **Use this IDC MarketScape for vendor evaluation.** Use this IDC MarketScape in contract negotiations and as a tool to not only short list vendors for CX service bids but also evaluate vendors' proposals and oral presentations.

VENDOR SUMMARY PROFILES

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and challenges.

Accenture

Accenture (NYSE: ACN) is positioned as a Leader in this IDC MarketScape for worldwide manufacturing customer experience systems integration.

Accenture is a global management consulting and professional services company that provides strategy, consulting, digital, technology, and operations services. Approximately 435,000 employees help deliver services to clients in more than 120 countries and more than 100 delivery centers worldwide. Accenture works for more than 900 manufacturing companies, and approximately 25% of revenue is from the industry segments that IDC defines as manufacturing. Approximately 20% of manufacturing revenue comes from CX-related engagements. Accenture customers span manufacturing verticals, distributed across automotive, farm, construction, and industrial equipment; aerospace and defense; high tech; consumer products; process manufacturers; chemicals; and natural resources. Geographically, Accenture's customers are located in Western Europe, followed by North America, Asia/Pacific, and Eastern Europe. The vast majority of manufacturing clients have revenue greater than \$1 billion. To facilitate CX projects, Accenture offers innovation centers and methodologies. Accenture works with all of the major CX software providers, including IBM, Adobe, SAP, OpenText, Salesforce, Oracle Corp., Infor, and Microsoft.

Strengths

Accenture's breadth of resources and delivery centers is an exemplar among the IT systems integration for the manufacturing market. Over the past three years, Accenture has completed more than 600 CX-related IT services projects for manufacturing clients. In addition to the more than 100 delivery centers globally, Accenture provides design centers, marketing centers, future camps, app studios, and content delivery centers to assist customers with CX engagements. Innovation is an important strength for Accenture, and the company has a formal program, the Accenture Innovation Architecture, that enables the company to combine its capabilities across the company to develop and deliver innovations and scale them quickly. Accenture has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Artificial intelligence:** Accenture Insights Platform (AIP) is a platform for data management and integration, artificial intelligence, and advanced analytics. Representative manufacturing-specific Accenture Intelligent Industry Apps include demand forecasting and video analytics for forestry.
- **Mobility:** Accenture uses a unified approach and methodology to develop mobile apps for CX in manufacturing. The Accenture Omni-Channel Testing and Validation Engine (Octave) solution provides mobile app testing from an omni-channel perspective, ensuring a consistency across channels in terms of experience, performance, and throughput.
- **Predictive analytics:** The Accenture Insights Platform is a cloud-based platform made up of an integrated suite of technologies, consumption-based commercial arrangements, and enterprise support for enterprise big data. AIP powers industry solutions such as design-led analytics, visualization and self-service dashboards, app delivery, as-a-service models, analytics apps, data discovery, data monetization, deep industry insights, and data management.

Challenges

While Accenture has scale and breadth, there are challenges related to the higher costs for systems implementation and integration projects as compared with other IT service providers. A prolonged discrepancy could lead to erosion of projects in the implementation and integration phases of CX projects for manufacturing clients. Accenture is increasingly offering clients outcome-based pricing or per-transaction pricing in outsourcing contracts and fixed-price engagements in projects to move the conversation away from hourly rates.

Cognizant

Cognizant Technology Solutions (Nasdaq: CTSI) is positioned as a Leader in this IDC MarketScape for worldwide manufacturing customer experience systems integration.

It is a provider of information technology, consulting, and business process outsourcing services, with headquarters in Teaneck, New Jersey, and over 100 development and delivery centers worldwide. IDC estimates that less than 20% of Cognizant's revenue in fiscal year 2016 came from manufacturing clients. Founded in 1994, the company has approximately 256,100 employees, including more than 40,000 delivering services to its 700+ manufacturing clients. These clients represent a variety of manufacturing segments and are primarily based in North America and Europe. The majority of Cognizant's customers report revenue of over \$10 billion. Customer experience is one of the four identified strategic growth opportunities that Cognizant has identified for the next three to five years, and the company is making active investments in this area to respond to market opportunities. More than half of manufacturing-related revenue comes from customer experience engagements. Cognizant approaches digital transformation from three levels: connected products, connected ecosystem, and converged life. Customer experience projects span these three levels based on the manufacturer's focus. Cognizant has partnerships and alliances with customer experience software providers including SAP, Microsoft, Salesforce, Oracle, and Adobe, to name a few.

Strengths

Cognizant has adopted CX as a strategic focus area and as a result is making notable investments in the IP, skills, and services around CX. Cognizant has added considerable capabilities around customer experience and design consulting through recent acquisitions and strategic investments that include ReD Associates (CX and design consulting), Idea Couture (design and prototyping), Mirabeau (digital marketing and CX), Brilliant Service (marketing and CX), Netcentric (digital experience and marketing), and Zone (CX and digital strategy). These acquisitions and investments have been combined with organic skill development around UX design, and digital skills, to support tactical systems integration and implementation projects for customer engagement. Cognizant has established centers of excellence in key CX platforms, including SAP, Microsoft, Salesforce, and Oracle. The company has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Augmented and virtual reality:** Enhanced digital product catalogs, interactive advertising and gamification prototypes, and virtual product catalog through QR scanning
- **Artificial intelligence:** Social media monitoring and intent analysis; conversational agent framework CSpeak; chatbots and conversational bots for sales support and service assistance; a Customer Retention Intelligence Engine (CuRIE) that helps identify key customers and optimizes the contact strategy for improving customer retention
- **Robotics:** Development of robots and social robots

- **IoT:** Autonomous car and connected car solution (Car 360); Cognizant 1Voice, a conversational platform to create new channels of customer engagement

Challenges

Cognizant has made some notable investments in CX for manufacturing recently, and it may take time for the market to catch up to the company's forward trajectory. Finding ways to further broadcast its digital transformation message along with notable category-leading manufacturing customers positions Cognizant well to capture greater penetration of the manufacturing market.

DXC

DXC Technology (NYSE: DXC) is positioned as a Major Player in this IDC MarketScape for worldwide manufacturing customer experience systems integration.

DXC is a global technology services company headquartered in Tysons Corner, Virginia, that provides information technology and consulting services to businesses and governments. DXC was formed in 2017 from the merger of CSC and the Enterprise Services business of Hewlett Packard Enterprise (formerly EDS). It has been offering IT services for more than 60 years and has 155,000 employees in more than 70 countries, serving 1,500 manufacturing customers. Among the vertical segments of manufacturing that DXC's customers are concentrated are automotive, aerospace and defense, consumer products, high tech, and farm, construction, and industrial machinery. The vast majority of clients have revenue of greater than \$1 billion, and geographically they are well distributed across North America (30%), Europe (25%), Asia/Pacific (25%), and Latin/South America (15%). For customer experience, DXC had adopted an innovation strategy that blends mobility, microservices, and a DevOps model to create CX that quickly adapts to changing customer needs. DXC has a robust programmatic structure of 250+ Strategic and Solution Partners it works with to deliver the right solution and the right team to address complex, critical client business challenges.

Strengths

DXC has a strong track record providing application development, maintenance and support, systems implementation and integration, and infrastructure outsourcing, especially in areas like customer support, call center, CRM, and cloud technology for customer experience services. Over the past three years, the company has completed more than 140 projects for IT systems integration related to CX in manufacturing. DXC approaches CX projects with the approach that the true, connected manufacturing enterprise must have a strong, closed-loop connection with the end customer, engaging them on all levels of interaction with our client's products and services. DXC has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Augmented/virtual reality:** VR visors and tablet/mobile phone overlays for IoT device monitoring.
- **Social:** The NASCAR fan experience; Europ Assistance expanded its service portfolio with a user-friendly and interactive mobile solution for digital roadside assistance.
- **Mobility:** Europ Assistance expanded its service portfolio with a user-friendly and interactive mobile solution for digital roadside assistance; Airline customer experience included a website design that provides users with easy access to check and book fares, plus personalized news, information, and travel offers; Network Rail transformed to a mobile-enabled digital workforce, making life much easier for its frontline employees.

Challenges

DXC is still working through the integration of the separate practices that make up the new entity, and therefore, there is a challenge to harmonize the assets and capabilities related to customer experience. However, the company has been a strong provider of systems integration-related services to the market for many years and should be able to position itself successfully in the market with the proper execution on message and capabilities.

HCL

HCL Technologies Ltd. is positioned as a Leader in this IDC MarketScape for worldwide manufacturing customer experience systems integration.

HCL is a multinational IT services company offering IT consulting, enterprise transformation, remote infrastructure management, engineering and R&D, and business process outsourcing to global organizations. It is headquartered in Noida, Uttar Pradesh, India. It is a subsidiary of HCL Enterprise and was spun out as an independent company in 1991. HCL reported that approximately 35% of CY17 revenue came from manufacturing customers. The company has 119,291 employees, of which more than 40,000 are specific to IDC's definition of the manufacturing industry, serving HCL's 285 manufacturing clients. The greatest concentration of HCL's manufacturing clients are in high tech, and the remainder are well distributed across all other segments. The vast majority of clients have revenue of greater than \$1 billion and geographically are concentrated in North America (59%) and Western Europe (21%). For customer experience, HCL has built an ecosystem of more than 25 IPs, tools, and accelerators specific to the manufacturing industry. HCL maintains alliances and partnerships with prominent customer experience software providers including SAP, Oracle, IBM, Adobe, Microsoft, Infor, and Pegasystems, to name a few.

Strengths

HCL has more than 75 delivery centers around the world, including more than 20 labs that are owned and co-owned with clients to focus on digital technology enablement for CX transformation. Over the past three years, HCL has completed more than 300 systems integration projects in CX for manufacturers. The company's Digital and Analytics practice transforms the business processes and the customer experience by integrating big data and analytics and developing modern applications and platforms to deliver the experience. Its strength lies in digital execution, and many of its projects include DRYICE, HCL's dedicated modular, cross-functional platform for autonomics and orchestration. In addition, HCL has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Artificial intelligence:** DRYICE LUCY is an AI-enabled cognitive chat broker. It's powered by natural language processing (NLP) that automates service desks-related and other problem-solving conversations utilizing cognitive technologies and process automation for agents and end users leading to faster resolution of queries.
- **Robotics:** HCL has partnered with a U.S. university to develop its own AI algorithms for intelligent data extraction and interpretation for solving industry-level problems, including specialist algorithms in support of trade processing, contract management, and invoice processing.
- **Mobility:** HCL has established a dedicated mobility COE and multiple mobility labs across Chennai and Noida, India; Zurich, Switzerland; and Singapore to help innovate and incubate mobile technologies for CX transformation.

Challenges

HCL has built strong capabilities in CX systems integration but faces strong competition in the market. The company needs to expand its ability to speak with business leaders outside IT for CX projects and continue to build capabilities that are specific to the manufacturing industry for CX.

Infosys

Infosys Ltd. is positioned as a Leader in this IDC MarketScape for worldwide manufacturing customer experience systems integration.

It is a multinational corporation that provides business consulting, information technology, and outsourcing services. Founded in 1982, with its headquarters in Bengaluru, India, Infosys has been delivering services to clients in the manufacturing industry over the past 35 years. Infosys reported that approximately 28% of 2016 revenue came from manufacturing customers. The company has 198,553 employees, of which 52,942 are manufacturing focused and serve Infosys' 554 manufacturing clients. While Infosys delivers services across the industry, its clients are concentrated in automotive, aerospace, industrial manufacturing, high tech, and consumer products. 70% of manufacturing client engagements are based in North America, followed by 20% in Western Europe, and the remainder in Asia/Pacific, Eastern Europe, and Latin/South America. For customer experience, Infosys applies Design Thinking and innovation to fulfill its clients' CX needs, including a strategy that involves emotional innovation, human-centered approach to innovation, process innovation, and experience innovation. Infosys has a mature and strategic partnership with all customer experience software providers including SAP, Oracle, IBM, Demandware, Sitecore, Microsoft, and Adobe, to name a few.

Strengths

Infosys delivers a broad range of IT systems integration capabilities for CX in manufacturing. The company has more than 90 delivery centers around the world, including the following centers of excellence that support CX engagements: UX COE, Mobility COE, Digital Factory COE, Commerce COE, SFDC/Oracle/SAP/IBM/Adobe/Sitecore COE, Data and Analytics COE, and Infosys Centre for Emerging Technologies. Over the past three years, Infosys had completed more than 130 systems integration projects in CX for manufacturers. Client delivery is a particular strength of Infosys, both in methodologies and quick-start capabilities geared toward CX projects. Infosys offers an Infosys CX Maturity Assessment Framework that assesses clients on multiple parameters related to CX and delivers recommendations to achieve their goals. The company also provides Rapid Implementation frameworks and Domain Solutions Groups that create industry-specific templates to be used across different product offerings. Infosys has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Augmented/virtual reality:** Projects include building virtual automotive simulators, large-scale and stadium-size virtual experiences, and simulators for training and education in defense and aerospace industries. Plant.io is an open source, plant-growing platform that incorporates AR to transport the plant growth cycle into a mixed physical/virtual reality. Flight 360 uses VR to create immersive experiences for airline customers.
- **IoT:** Infosys is developing custom biometric software to provide safer driver experiences and prevent driver distraction. Infosys developed an IoT-based precision farming offering for a farm equipment manufacturer to offer prescription services to farmers for timely sowing and watering.

- **AI/natural interfaces:** Infosys Nia Chatbot provides conversational intelligence and an adaptive UX that enables customers to use a preferred channel for communication. An automotive manufacturer is using Infosys Nia Chatbot to automate the Live Agent Assist system in its high-end cars.

Challenges

Infosys has ambitious goals to expand its CX practice, including aggressive revenue growth and hiring resources for both sales and delivery. In this competitive market, the company may be challenged to complete these objectives. In addition, Infosys plans to expand its CX footprint through customer experience hubs, and this will be a cornerstone of the company's success in this competitive market.

KPIT

KPIT Technologies is positioned as a Major Player in this IDC MarketScape for worldwide manufacturing customer experience systems integration.

KPIT is a global technology company that specializes in providing IT Consulting and Product Engineering solutions to companies. Incorporated in 1990, KPIT is listed on the National Stock Exchange and Bombay Stock Exchange in India with headquarters in Pune, India. KPIT has more than 12,000 employees and 31 offices in 16 countries. KPIT's 200+ manufacturing customers are somewhat evenly distributed across automotive; high tech; farm, construction, and industrial machinery; consumer products; process; and life sciences. More than a quarter of manufacturing customers are engaged with KPIT on CX-related projects. Geographically, the majority of customers are in North America followed by Europe and Asia/Pacific. KPIT leverages several industry accelerators to facilitate adoption of a CX offering, in addition to running Design Thinking and usability workshops. KPIT maintains strategic alliances with the most prominent providers in the customer experience space including SAP, Salesforce, Oracle, Microsoft, IBM, ServiceNow, GE/ServiceMax, Sitecore, Vuzix, MindTouch, InsideView, and FPX, to name a few.

Strengths

KPIT focuses its IT services around systems implementation and integration and application development, maintenance, and support. Over the past three years, the company has completed more than 200 CX-related projects for manufacturing companies in systems integration. The company has 10 delivery centers concentrated in Asia/Pacific, North America, and one each in Western Europe and Latin America. KPIT includes design thinking, user experience, sales and marketing automation, connected products, diagnostics, AR/VR, machine learning/AI, and enterprise mobility in centers of excellence to support CX and customer engagement. KPIT organizes its CX-related services under the umbrella of "Improving Customer Experience," and it includes the following three focus areas: customer reach, omni-channel commerce, and sales execution. Increasingly, KPIT's CX engagements are championed by VPs of marketing, sales, and service at its manufacturing clients, reflecting the alignment with business-driven outcomes. KPIT has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Augmented/virtual reality:** HoloLens technology for a furniture manufacturer to simulate in 3D how furniture will look in a room; Respial, an AR-based predictive service HoloLens-based visual configurator
- **Cognitive/AI systems:** Creating a natural language processing interface for an ERP system to ask questions about inventory, orders, and other key information

KPIT's customer base is made up of only companies that manufacture or distribute a physical product, and this is reflected in the kinds of projects the company completes in the CX arena.

Challenges

KPIT's size and limited amount of delivery centers and innovation centers present a challenge when competing with some of the larger IT systems integration firms. However, the company has built a niche in the product engineering and customer experience segment, and therefore can use this to expand the relationships it has with global manufacturers.

LTI

Larsen & Toubro Infotech Ltd. (NSE: LTI), a subsidiary of Larsen & Toubro, is positioned as a Major Player in this IDC MarketScope for worldwide manufacturing customer experience systems integration.

LTI is a global IT consulting and services company based in Mumbai, India. Founded in 1997, LTI has been delivering services to clients in the manufacturing industry for more than 20 years. This heritage in manufacturing is reflected in LTI's sales, and the company reported that approximately 34% of its FY16 revenue came from the manufacturing industry. The company has 22,000 employees, of which 7,000 are manufacturing focused and serve LTI's 125 manufacturing clients. Among the manufacturing segments where LTI's clients are concentrated are oil and gas, EPC, industrials, automotive, aerospace, high tech, and consumer products. The vast majority of these clients have revenue greater than \$10 billion and are geographically focused in North America and Western Europe. LTI has realigned its organization, people, and partnerships to reflect the importance of customer centricity and customer experience engagements, building centers of excellence and delivery and consulting centers to support these efforts. LTI has formal partnerships with all prominent customer experience software providers including SAP, Microsoft, Salesforce, Oracle, IBM, Kony, Xamarin, Mendix, Pega, to name a few.

Strengths

LTI delivers a range of IT systems integration capabilities for CX in manufacturing. With 23 delivery centers around the globe, LTI has completed more than 200 IT systems integration projects in CX for manufacturing clients over the past three years. The company offers industry vertical-oriented accelerators and industry-specific frameworks to apply CX to specific workflows and processes such as CPQ in HVAC or dealer management systems for automotive. LTI has assisted customers in transforming the customer engagement center through self-service, virtual help desks, and experience journey mapping. LTI is tightly coupled to its partnership ecosystem as they are involved in approximately 75% of CX projects. LTI has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Augmented/virtual reality:** Utilizing AR/VR on wearable devices is to enhance transformative customer experience and operational efficiency in the areas of guided tour and training using gestures and smart watch integration for field service personnel.
- **Artificial intelligence:** Leveraging partner technology including Microsoft Cognitive Services, IBM Cognitive Services, and Google Machine Learning Cloud, LTI has completed projects including transforming the experience of interacting with legacy systems through interactive chatbots using natural language, speech, and visual modes for intuitive experiences.
- **Robotics:** For customer experience, LTI has created automated processes in sales order creation, purchase order creation, and customer onboarding process.

Challenges

LTI must continue to expand its capabilities in CX services to compete effectively within this market. In addition to further building out resources on key platforms like Salesforce and Microsoft, LTI must raise its market profile through awareness campaigns to share some of its customer successes.

NTT DATA

NTT DATA is positioned as a Major Player in this IDC MarketScape for worldwide manufacturing customer experience systems integration.

NTT DATA delivers technology-enabled services and solutions to clients around the world. The company is an IT services arm in NTT Group and provides consulting, implementation services, managed services, outsourcing, and cloud-based solutions to midsize and large enterprises in all major industries. Founded in 1988, NTT DATA is headquartered in Tokyo, Japan and has been serving the manufacturing industry for 29 years. The company has 111,700 employees, of which 18,000 deliver services to the company's 500+ manufacturing customers. Approximately, 16% of NTT DATA's 2016 revenue came from manufacturing-related engagements. Among the manufacturing segments where NTT DATA's clients are concentrated are automotive; farm, construction, and industrial machinery; and consumer products. These customers vary in size from \$100 million to more than \$10 billion and are geographically dispersed across Asia/Pacific including Japan (46%), Western Europe (31%), and North America (20%). NTT DATA's Customer Engagement Service Suite includes Digital Marketing, IoT & Wearables, Mobile & Responsive Web, Content, Portal Collaboration, Omnichannel & eCommerce, Experience Strategy, Design & Analytics, and a Customer Collaboration Center. NTT DATA has formal partnerships with all prominent customer experience software providers including SAP, Microsoft, Salesforce, Oracle, Insite Software, Sitecore, and Kony, to name a few.

Strengths

NTT DATA has built capabilities to deliver end-to-end CX-related projects for manufacturing customers, leveraging its 55+ delivery centers around the world and several innovation labs that are dedicated to CX, including the NTT DATA Digital Experience Studios in Plano, Texas; Bangalore, India; and Munich, Germany. Over the past three years, NTT DATA has completed more than 40 IT systems integration projects in CX for manufacturing clients. NTT DATA has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Augmented/virtual reality:** Supporting processes include automotive aftersales and maintenance. Several examples of smart glasses are remote control assistance systems, augmented reality keyboards, and document-sharing functions for manuals and other relevant materials.
- **Artificial intelligence:** As part of a connected car platform offering that NTT has developed with a major automotive OEM, the system offers agents for providing drivers with user-friendly services by combining driving advice based on understanding the environment inside and outside the vehicle and leveraging voice interaction technology.
- **Predictive analytics:** Among the projects that are underway include utilizing internal data (customer contact center) and external data (Twitter and social media) for proactive sales opportunities and to shorten the mean time between product malfunctions with proactive customer service.

Challenges

NTT DATA must continue to expand its capabilities in CX services to compete effectively within this market. This includes increasing its offshore and nearshore capabilities as well as expanding its role at within key global accounts to a trusted partner for international projects.

TCS

Tata Consultancy Services (TCS) is positioned as a Leader in this IDC MarketScape for worldwide manufacturing customer experience systems integration.

TCS is an IT services, business solutions, and consulting organization that offers a consulting-led, integrated portfolio of IT and IT-enabled services delivered through its Global Network Delivery Model. Founded in 1968, TCS is a part of the Tata Group, one of India's largest business conglomerates. With headquarters in Mumbai, India, TCS is listed on the National Stock Exchange and Bombay Stock Exchange in India. TCS has over 389,000 consultants in 49 countries. TCS manufacturing customers span industry segments, with the majority of customers located in North America and Europe. TCS provides services to a broad range of manufacturing companies, and nearly two-thirds of clients engage with TCS for customer experience projects. In addition, TCS employs a number of frameworks for customer experience, including a design thinking methodology, 4D user experience framework, customer journey maps, and Digital Reimagination. TCS has dedicated COEs under the umbrella of Customer Experience Management Value Engines as well as a Design Thinking Lab, Innovation Labs, and COEs for specific technologies to support customer experience. TCS maintains strategic alliances with the main providers in the customer experience space: SAP, Oracle, Microsoft, Adobe, Salesforce, IBM, Infor, Siemens, Pegasystems, Sitecore, Apttus, CloudCraze, PTC, Magento, and ServiceNow, to name a few.

Strengths

TCS has developed both depth of coverage and breadth across geographies for the processes that make up customer experience, including 22 global delivery centers and 119 customer and offshore delivery centers. In the past three years, the company has completed more than 145 projects in IT systems integration for CX, notably in ecommerce, channel transformation, and connected products. In fact, TCS' road map for CX in manufacturing and its CX-specific methodologies for delivering faster results on CX projects are two notable strengths that surfaced during the evaluation process, along with its agile delivery capabilities. Application development, maintenance, and support and systems implementation together comprise the largest share of TCS revenue from manufacturing clients. The company has established centers of excellence in key CX platforms, including SAP, Oracle, Microsoft, Adobe, and Salesforce. For Mobility COE, TCS has more than 3,000 associates working on various mobile technologies, 12 delivery/design centers, 3 user experience centers, and developed more than 300 mobile applications. Innovation accelerators are a growing segment of TCS' project work, and TCS has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Augmented/virtual Reality:** Guided Sales, 3D Virtual retail environment, digital marketing
- **Artificial intelligence:** In the call center leveraging voice-based bots using natural language processing; interactive online shopping
- **IoT:** Remote monitoring for customer service

- **Natural interfaces:** TCS Innovation Labs having its own Natural Language Interface called NATAS and several applications including Customer Support, Sales Force Automation, Lead and Opportunity Management, and Reporting

The company has ambitious targets for a sustained growth rate over the next five years in this practice area, and its FTEs, methodologies, platforms, and delivery centers across the globe are aligned to achieve this notable growth rate.

Challenges

TCS has ambitious goals to expand customer experience capabilities and revenue, and it may face headwinds in a marketplace that is short on some of the CX-specific talent necessary for these projects. Expanding its existing talent pool in the manner that has been successful for the company will ensure that TCS continues to be a dominant player in this market.

Tech Mahindra

Tech Mahindra is positioned as a Major Player in this IDC MarketScape for worldwide manufacturing customer experience systems integration.

Tech Mahindra is a provider of consulting, digital transformation, integrated engineering, and business services. Founded in 1986 and headquartered out of Hinjewadi, India, Tech Mahindra has 115,000+ professionals across 90 countries, helping more than 350 global manufacturers including several Fortune 500 companies. They are part of the \$16.9 billion Mahindra Group. Manufacturing is the second-largest business segment for Tech Mahindra with over two decades of experience, and it contributes 20% of the total revenue, and roughly 10% of that is related to customer experience engagements. Manufacturing business focuses on automotive, aerospace, industrial machinery and equipment, consumer appliances and electronics, chemical, and metal-mining industries. The vast majority of customers have revenue of greater than \$1 billion. Tech Mahindra serves the majority of its clients in North America and Europe, with a growing customer base in Asia/Pacific and the rest of the world. Tech Mahindra has embarked on a digital transformation journey, which it calls "IT to DT." The program has led Tech Mahindra to become a solutions-led systems integrator that is consultative in its approach. Among the companies Tech Mahindra works with for CX in manufacturing are Salesforce, Microsoft, Adobe, Google, IBM, Sitecore, Alfresco, SAP, Pininfarina, and BIO Agency. Under a program called Tech Mahindra NxT, the company also plans to add in 20 to 30 start-ups every year from the United States, the United Kingdom, Israel, and India in digital space.

Strengths

Tech Mahindra provides a broad array of systems integration and implementation capabilities that also seek to create long-term relationships with its customers. The company has more than 68 delivery centers globally, including centers of excellence for CX, User Experience, Analytics, AR/VR, CRM, Connected Cars, IoT, and Mobility. Tech Mahindra's Manufacturing Global Innovation Center (MaGIC) seeks to bring many of these innovative technologies under one umbrella specific to the manufacturing industry. In the past three years, the company has completed more than 200 projects in IT systems integration for CX. Functionally, Tech Mahindra divides the CX space into three areas: marketing and advertisement (customer communications), sales and buying experience, and aftermarket. Tech Mahindra uses a KPI-driven optimization framework supported by Lean Six Sigma methodology to standardize IT services across business units and geographies for continuous service improvement. Tech Mahindra has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Augmented/virtual reality:** Virtual Showroom; AR-based Service Technician app and training tool
- **Artificial intelligence:** Chatbots
- **Predictive analytics:** Analytics-as-a-service offerings, including PRISM and iDecisions

Product engineering is one of the key strengths of Tech Mahindra's overall portfolio, and when it combines this with customer experience, it will be able to differentiate itself in this market.

Challenges

Tech Mahindra has been very successful engaging with CIOs and heads of IT, and as part of its "Run Better and strengthen the core" message, 70% of its business is targeted at the CIO and CTO. While the company has been successful at developing relationships on the sales and marketing side of its customers, it will need to create messaging that targets the CMO and CDO to drive projects that deliver the next level of customer engagement.

Wipro

Wipro Ltd. (NYSE: WIT) is positioned as a Leader in this IDC MarketScape for worldwide manufacturing customer experience systems integration.

Wipro is a global information technology, consulting, and outsourcing company with headquarters in Bangalore, India and a presence in 62 countries. Founded in 1945, Wipro employs 166,790 people, serving its 328 manufacturing clients through 146 delivery centers globally. Nearly 30% of Wipro's revenue comes from manufacturing clients, and 16% of that revenue is related to CX-related engagements. Wipro customers span manufacturing segments but the top 3 segments are high tech, automotive, and farm, construction, and industrial machinery. North America is a key geography for Wipro, followed by Europe, and the majority of manufacturing clients have revenue of greater than \$1 billion. Wipro includes many capabilities to facilitate adoption of CX for customers, including Actionable Strategy, Digital Studios, Implementation Integration and App Dev, Cloud Management, and Change Enablement. Wipro also has established four Digital Pods to accelerate digital and customer experience-related innovation, and it has established Digital Lighthouses (business-IT cocreation hubs) and Digital Acceleration Centers (full-stack delivery sites) for specific customers. Wipro works with numerous CX software providers, including IBM, Adobe, Pega, SAP, OpenText, Appian, Drupal, Demandware, Salesforce, Magento, Google, Oracle Corp., Infor, SugarCRM, and KANA, to name a few.

Strengths

Wipro continues to expand its physical reach across geographies and IP for customer experience-related capabilities, including through 146 delivery centers and more than 22 Experience and Innovation centers to promote R&D with customers and partners. Over the past three years, Wipro has completed more than 500 CX systems integration projects for manufacturers. The breadth of the company's range of services and capabilities related to CX are both considerable strengths for the company that surfaced during the evaluation process. The company has also funded a \$100 million corporate venture capital fund to invest in innovative start-ups with offerings in digital, IoT, big data and analytics, cloud infrastructure, security, open source, and AI. Wipro has undertaken the following representative projects related to CX and IDC's innovation accelerators:

- **Augmented/virtual reality:** Wipro IMAGINE is a platform for enabling next-generation Human Machine Interfaces, and the platform has been applied to Customer Care, where virtual subject matter experts can be ingested with knowledge bases and provide conversation experience.

- **Artificial intelligence:** Wipro HOLMES is an AI platform that offers a variety of applications for CX including digital virtual agents, knowledge virtualization systems, and predictive systems. Also, Avaamo, a Wipro Ventures company, provides an AI-driven enterprise bot platform for CX.
- **Predictive analytics:** Wipro's Digital Experience Platform (DXP) is an integrated platform solution built on commercial tools in commerce (Hybris, IBM Cognitive Commerce & BPM), CRM (Microsoft CRM, Pega Suite), and marketing (Adobe Marketing Cloud). It is focused on delivering an integrated experience across marketing, sales, and services functions. DXP Data and Insights services include offerings around sentiment analysis, concept extraction, social analytics, and churn analytics.

Challenges

Wipro must continue to work at optimizing its nearshore/offshore alignment on these projects, although the company has shown improvements from past performance on similar research reports. It is in a marketplace where some of the competitors are making considerable strides in this arena.

Vendors to Watch

The landscape for customer experience in manufacturing systems integration is broad. In addition to the 11 vendors listed previously, there are several that bear mention because of their presence in the market and their more expansive work with manufacturers across all other IT systems integration disciplines. There is also a long tail of vendors that focus on very specific categories of projects such as Configure, Price, Quote, or Salesforce implementations. Often many vendors in the long tail are regionally focused and therefore relevant to only a part of the market. The following are several vendors to watch in this market:

- **Atos** is a global IT services corporation with its headquarters in Bezons, France. Atos offers customer experience and systems integration services as part of its digital transformation practice.
- **Capgemini** is a global provider of consulting, technology, and outsourcing services, headquartered in Paris, France. Capgemini has a dedicated and global focus on digital customer experience (DCX) and digital manufacturing. Together the teams drive digital transformation and CX strategy for clients in the B2B manufacturing sector.
- **IBM Global Services**, a division of IBM, is a global business and technology services provider. IBM Global Business Services helps manufacturers create engaging experiences through technology services to deliver new customer-centric business systems.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level

decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed.

For this IDC MarketScape on manufacturing customer experience systems integration, because we are evaluating 11 vendors that are dominant in terms of market share and presence, all of the vendors ended up within either the "Major Players" or the "Leaders" segment of the chart (refer back to Figure 1). These 11 vendors have all demonstrated depth of experience with F1000 companies in this area. And while we have outlined some of the differences of offerings and strengths within the individual vendor profiles, IDC Manufacturing Insights would not hesitate to recommend any of them to a manufacturer evaluating this space.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of a review board of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Overview

IDC expects the total manufacturing customer experience systems integration market to continue to grow at an average CAGR of 3.3% over the next five years. The market for systems integration related to customer experience in manufacturing is expected to outpace this growth rate, and IDC Manufacturing Insights estimates it to be close to \$35 billion in 2017.

Market Definition

Customer experience is a broad topic and, while the concept is widely understood in consumer-facing industries like retail, it is still evolving in maturity as an adopted strategic practice by manufacturers worldwide. For the purposes of this IDC MarketScape, and any subsequent research on the topic from IDC Manufacturing Insights, we are defining customer experience to include a combination of services, applications and, in some instances, infrastructure to support the customer-facing business processes within an organization (i.e., sales, marketing, customer service, and contact center). Collectively, these applications serve to manage the entire life cycle of a customer (including the process of brand building, conversion of a prospect to a customer, and the servicing of a customer) and help an organization build and maintain successful relationships.

At IDC, we see customer experience as part of omni-experience digital transformation, one of five key dimensions to digital transformation. IDC defines omni-experience as a multidimensional ecosystem approach for businesses to continually amplify experience excellence for their products and services. It includes the infinite combination of interactive experiences between digitally enabled manufacturers and their customers, partners, employees, and "things" that are transforming the way people communicate with each other and with the products and services that are increasingly created to meet

unique and individualized demand. Manufacturers that are able to deliver an optimized omni-experience as part of their digital transformation journey should be able to continually attract and grow loyalty with customers, partners, and employees across the entire value chain and positively impact their business performance as a result. For more information, see *IDC MaturityScope: Omni-Experience Digital Transformation in Manufacturing 1.0* (IDC #US40542516, March 2016).

As this is an IDC MarketScape that evaluates IT service providers that offer systems integration and other implementation services for customer experience engagements in the manufacturing industry, it is useful to understand how IDC defines the services market, specifically IT systems integration (additional information may be found in *IDC's Worldwide Services Taxonomy, 2017*, IDC #US42356617, March 2017):

- IDC defines systems integration (SI) as a process that includes the planning, design, implementation, and project management of a technical solution that addresses an organization's specific technical or business needs. When SI deals involve contracting for custom application development related to the systems integration, then those activities are included in the definition of SI. SI projects typically involve different platforms and technologies. The solution may include hardware, software, and services and is consumed on-premise, on demand, or in a cloud-based environment. An SI project is formalized by a contract that is constructed around solution specifications and often demands certain levels of performance against technical or business goals. The end result of an SI project is the delivery of a system that meets a stated objective and fulfills solution specifications.

The following are selected service capabilities/offerings for customer experience in manufacturing that vendors were evaluated against:

- Customer support/call center/contact center transformation
- Community management
- Customer relationship management (including customer portals)
- Guided selling, sales enablement, configure, price, quote
- Renewals/cross-sell/upsell services
- eCommerce implementation
- Customer self-service implementation
- Dealer/channel management implementation (including dealer portals)
- Contract management systems
- Warranty registration management
- Enterprise mobility technology for customer experience
- Cloud technology for customer experience services
- Connected products for customer experience services
- Analytics for customer experience optimization (including sentiment, behavior, selling, marketing, etc.)

Among the considerations for engaging with an IT services firm is their experience in vertical markets and their presence in a given geography. Often the geographic presence indicates how well the provider can offer onshore resources to meet customer needs. While there is a concentration of customers in North America and Europe for most of the vendors, there is an increasing opportunity in emerging markets for these companies, and we expect to see growth continue in these regions (see

Table 1). Another consideration is the level of experience the vendor has within a certain vertical market. Table 2 highlights the vendor coverage by manufacturing segment.

TABLE 1

Vendor Coverage as a Percentage of Manufacturing Engagements by Region (%)

	North America	Europe	Middle East/Africa	Asia/Pacific	Latin/South America	Rest of World
Accenture	30.0	53.0	1.0	12.0	3.0	1.0
Cognizant	75.0	15.0	*	10.0	*	*
DXC	30.0	25.0	5.0	25.0	15.0	–
HCL	59.0	27.0	3.0	9.0	2.0	–
Infosys	70.0	21.0	–	8.0	1.0	–
KPIT	60.0	15.0	5.0	15.0	5.0	–
LTI	68.5	22.9	0.9	7.7	*	*
NTT DATA	20.0	31.0	*	46.0	*	3.0
TCS	52.0	44.0	–	3.0	1.0	–
Tech Mahindra	58.0	32.0	*	10.0	*	*
Wipro	61.0	20.0	–	8.0	6.0	5.0

* NTT DATA reports Middle East/Africa as part of Asia/Pacific and reports Latin/South America as part of ROW.

* For LTI, Latin/South America and ROW are merged to other regions.

* Cognizant numbers represent total revenue, and Middle East/Africa, Latin/South America, and ROW are included with the Asia/Pacific number.

* Tech Mahindra includes Latin/South America in the North America number and includes Middle East/Africa and ROW in the Asia/Pacific number.

Note: Information was provided by vendors.

Source: IDC Manufacturing Insights, 2018

TABLE 2

Vendor Coverage by Manufacturing Segment (%)

	Automotive	Farm, Construction, and Industrial Machinery	Aerospace and Defense	High Tech	Consumer Products	Process	Life Sciences	Other
Accenture	7.0	14.0	NA	NA	30.0	18.0	30.0	–
DXC	30.0	10.0	25.0	10.0	15.0	5.0	5.0	–
HCL	7.0	13.0	6.0	42.0	12.0	8.0	12.0	–
Infosys	16.4	9.4	5.9	37.4	20.6	9.2	1.1	–
KPIT	20.0	15.0	2.0	15.0	15.0	15.0	15.0	3.0
LTI	22.0	*	*	11.0	8.0	12.0	*	47.0
NTT DATA	19.0	13.0	11.0	9.0	15.0	6.0	5.0	22.0
TCS	11.0	5.0	3.0	13.0	33.0	6.0	18.0	11.0
Tech Mahindra	41.0	13.0	9.0	3.0	6.0	13.0	7.0	8.0
Wipro	8.0	10.0	1.0	43.0	16.0	8.0	14.0	–

* LTI's automotive data includes aerospace and defense and farm, construction, and industrial machinery; consumer products data includes retail and life sciences; high tech data includes media and entertainment; process data includes energy; and "other" data includes insurance, banking, and financial services.

Note: Information was provided by vendors.

Source: IDC Manufacturing Insights, 2018

Strategies and Capabilities Criteria

Tables 3 and 4 present the key strategies and capabilities measures for success.

TABLE 3

Key Strategy Measures for Success: Worldwide Manufacturing Customer Experience Systems Integration Vendors

Strategies Criteria	Definition	Weight (%)
Delivery	The vendor has a strategy for adding methodologies for CX-specific functionality that it will continue to add to in the next three to five years.	18.0
	The vendor has the ability to scale its service delivery in key identified geographies as they relate to CX and customer engagement for manufacturers.	
	The vendor has defined its strategy for balancing local versus global resources to match the needs of its CX customers.	
Financial/funding	The vendor has plans for growth over the next three to five years that reflect its stability and match the dynamics of the current market.	2.0
Functionality or offering strategy	There is a road map based on customer and partner input that covers CX holistically and links multiple elements of the customer life cycle, specific to manufacturing value chains' go-to-market approaches.	33.0
	The breadth of offerings is expected to match to customer's evolving needs to deliver maximum benefits over the next three to five years.	
	The vendor has identified plans to add innovation accelerators that include cognitive, AR/VR, 3DP, IoT, next-generation security, and robotics to the customer engagement/service/experience portfolio of services.	
	Vendor must establish capabilities in broad areas to be effective ensuring long-term client success. including maximizing leverage of the "whole firm," focusing on emerging issues of importance and a "client focus."	
Growth	The vendor had identified plans to expand its presence in key geographic locations, either with staff, delivery centers, or customers.	16.0
	The vendor has plans to grow financially over the next three to five years that are attainable.	
	Vendor has defined plans to expand its expertise for CX in manufacturing, either organically or through acquisition.	
Innovation	The customer evaluates and rates the vendor's innovation pace and strategy,	2.0

TABLE 3

Key Strategy Measures for Success: Worldwide Manufacturing Customer Experience Systems Integration Vendors

Strategies Criteria	Definition	Weight (%)
Other	The vendor has specific innovations tied to CX/customer service that include patents, applications, platforms, and tools.	24.0
	The vendor's customer-facing technical skills, project management capabilities, and level of value delivered to customers are expected to satisfy market needs over the next three to five years.	
	The vendor is expected to hire highly qualified manufacturing resources and employees with industry experience and to organize itself optimally to create market value for customers over the next three to five years.	
	The vendor has plans to expand support for flexible pricing models, including shared risk/shared gain and outcome-based pricing to reflect market trends in the coming three to five years.	
	Vendor has a clear, concise, differentiated marketing strategy that will continue to resonate with customers in manufacturing over the next three to five years.	
	vendor is investing in its marketing message with plans to expand its CX message to the manufacturing market.	
R&D pace/productivity	The vendor has a plan to continue to develop thought leadership in the market around CX and tailor the message to the manufacturing industry.	5.0
	The pace of R&D, including investment as percentage of revenue, and strategy for investing that money are directly tied to CX and customer engagement.	
Total		100.0

Source: IDC Manufacturing Insights, 2018

TABLE 4

Key Capability Measures for Success: Worldwide Manufacturing Customer Experience Systems Integration Vendors

Criteria	Definition	Weight (%)
Customer satisfaction	Analyst evaluation of customer support services and resulting satisfaction based on customer and prospect discussions and industry knowledge	5.0
	Customer rating of vendor's CX client relationship/account management capabilities	
	Customer rating of perception of time to value for specific CX projects	
	Customer perception of value for money for specific CX projects	
	Overall customer satisfaction rated by the customer	
Customer service delivery	The resources available for CX projects have experience in industry as well as in CX	14.0
	The number of delivery centers located globally that support CX projects	
	Consulting firm must continually refresh its FTE skills to reflect changes in the technology and market, especially with DX and then with CX in manufacturing	
	A closer look at how the company meets the needs of a variety of manufacturing verticals in CX specifically	
	The number of FTEs that have technical focus and the percentage of FTEs that have been hired from industry	
Employees	The number of years the vendor has provided services to the manufacturing industry	2.0
Financial stability	How well the company has executed on its growth strategy, in relation to CX in manufacturing	7.0
	The vendor's financial and funding management	
	The vendor's year-over-year growth rate, in comparison to the industry	

TABLE 4

Key Capability Measures for Success: Worldwide Manufacturing Customer Experience Systems Integration Vendors

Criteria	Definition	Weight (%)
Functionality or offering	Current offerings, architectures, methodologies, and best practices match directly to current customer needs and with current vendor skills to deliver maximum customer benefits	29.0
	The use of predictive analytics in specific CX categories of projects	
	Measure of the range of product categories that the vendor has active manufacturing projects and the volume of those projects	
	The tools that the vendor uses to speed implementation, including templates and rapid-start programs	
Innovation/R&D	Examples of using innovation accelerators for CX engagements include AI, AR/VR, cognitive, IoT, 3D printing, and robotics	10.0
	The service offering's unique capabilities that generate market value; the vendor can articulate and demonstrate innovative and differentiating capabilities of its offering (software, services, etc.)	
	The vendor has demonstrated its understanding that to increase capabilities of its offering it will need to tap into internal development resources but also partner with other companies to bring differentiable and innovative capabilities to market	
	The locations of centers of excellence (COEs) that have specific capabilities in CX and customer engagement and are leveraged for manufacturing-related projects	
Marketing capabilities	The marketing message as it relates specifically to CX capabilities and the manufacturing industry, including chosen delivery methods for the message (trade shows, events, advertising, campaigns, etc.)	2.0
Portfolio benefits	Intellectual property related to CX in the form of patents, methodologies, templates, and other formats	11.0
	Partners that the vendor works with in a formal relationship that are specific to CX projects in manufacturing	
	Vendor demonstrates other services that are complementary to CX — including depth in analytics, cloud, mobile, and social for manufacturers	
	Acquisitions of other services firms, digital agencies, software, or other companies that are related to CX-specific capabilities in the past 10 years	

TABLE 4**Key Capability Measures for Success: Worldwide Manufacturing Customer Experience Systems Integration Vendors**

Criteria	Definition	Weight (%)
Pricing model or structure of product/offering	Vendor offers a variety of pricing models that suit the buyer and reflect the needs of the market	3.0
	Vendor currently supports profit share relationship	
Range of services	Vendor has capabilities to offer services that are adjacent to systems integration, including managed services and strategic consulting services	14.0
	Customer evaluation of the vendor's functional expertise in CX for manufacturing	
	Customer evaluation of the vendor's ability to offer the full range of services related to CX for manufacturing	
	Customer evaluation of the vendor's level of technical expertise in CX as it relates to manufacturing	
	The percentage of revenue that the vendor has from the manufacturing industry	
	The average number of years the CX-focused FTEs has in the manufacturing industry or supporting CX engagements	
	The size of manufacturing customers that the vendor supports for CX engagements	
Sales/distribution strategy	The average number of customers for manufacturing CX projects on each continent	3.0
Total		100.0

Source: IDC Manufacturing Insights, 2018

LEARN MORE**Related Research**

- *IDC MarketScape: Worldwide Manufacturing Customer Experience IT Strategic Consulting 2018 Vendor Assessment* (IDC #US42727917, forthcoming)
- *IDC FutureScape: Worldwide Manufacturing Product and Service Innovation 2018 Predictions* (IDC #US43153217, October 2017)

- *DX Use Cases That Highlight the New Rules of Customer Engagement in Manufacturing* (IDC #US42964917, August 2017)
- *IDC Manufacturing Insights' 2017 Product and Service Innovation Survey Results* (IDC #US42727717, June 2017)
- *IDC MaturityScape: Omni-Experience Digital Transformation in Manufacturing 1.0* (IDC #US40542516, March 2016)

Synopsis

This IDC Manufacturing Insights report uses the IDC MarketScape model to provide an assessment of 11 service providers participating in the worldwide customer experience in manufacturing IT systems integration market. This IDC MarketScape is an evaluation based on a comprehensive framework and a set of parameters that assesses providers relative to one another and to those factors expected to be most conducive to success in a given market during both the short term and the long term.

"With the rise of customer centricity and the increasing urgency for manufacturers to deliver their customers, whether they are businesses or consumers, an engaging experience, manufacturers are increasingly seeking out IT service providers to help transform their separate customer management systems and digital channels into holistic system for managing and optimizing the customer relationship. This is certainly a market in which early movers will gain competitive advantage," says Heather Ashton, research manager for IDC Manufacturing Insights' Service Innovation and Connected Products Strategies Practice.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-community.com
www.idc.com

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