Vendor Profile

Service Life-Cycle Management in Manufacturing: Tata Consultancy Services

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IDC OPINION

Manufacturers no longer find themselves in a position where they can solely focus on their products and product innovation. Converging trends of increased competition, rising customer expectations, and a desire to boost profits have made it imperative that manufacturers find new and innovative ways to maintain and expand customer relationships. This desire to strengthen relationships with customers has led many manufacturers to look to the value they can create through the service life cycle and focus on not only making service more efficient but also enabling it to become a key differentiator through strategic digital and technological investments benefitting the customer experience, the bottom line, and the sustainability of the business. This transformation can best be seen as manufacturers have looked to service to evolve from a primarily reactive model to one in which issues can be detected and resolved in advance of failure, utilizing technologies such as artificial intelligence (AI), the Internet of Things (IoT), cognitive systems, mobility, and the like to be more predictive and proactive with service execution. IDC finds:

- Service life-cycle management (SLM) is becoming a key driver to success. SLM refers to the process of servicing a product through its lifetime including customer support, service request, service planning, service execution and field service, spare parts management, warranty management, and recalls. The impact of SLM and a desire to improve the way in which service is delivered have become a key priority for manufacturers as the relationship between the customer experience and service excellence becomes more tightly intertwined, with 48.0% of manufacturers noting that their SLM efforts are being led by a need to provide a faster response to product quality issues and customer complaints.
- Manufacturers must understand where within their specific digital transformation journey they are and evaluate technology vendors and service providers with a best fit to aid along that path to support investments in advanced technologies such as artificial intelligence, the Internet of Things, and augmented reality/virtual reality (AR/VR) and are capable of deploying in the given model of the manufacturer's choosing.
- Tata Consultancy Services (TCS) is an IT services, business solutions, and consulting organization that offers a consulting-led, integrated portfolio of IT services, digital, and business solutions. TCS' offerings encompass the entire service life cycle with digital and business solutions that support CRM, customer support, dealer management, service planning, spare parts management, field service management, warranty management, connected products, fleet management, and service asset management, among other aspects of SLM.

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IN THIS VENDOR PROFILE

This IDC Vendor Profile evaluates Tata Consultancy Services – a global services provider. This document looks at TCS' company strategy, current capabilities, vision, service offerings, and target markets as well as the company's future opportunities and challenges within manufacturing and product-centric industry segments. This document is part of a series that also profiles other similar providers in the service life-cycle management domain. This document series is for manufacturers and other product-centric organizations that desire to evaluate service life-cycle management providers and services organizations to enable advancements and investments along the digital journey using 3rd Platform technologies like mobile, social, cloud, and analytics and innovation accelerators including IoT, AR/VR, and artificial intelligence.

SITUATION OVERVIEW

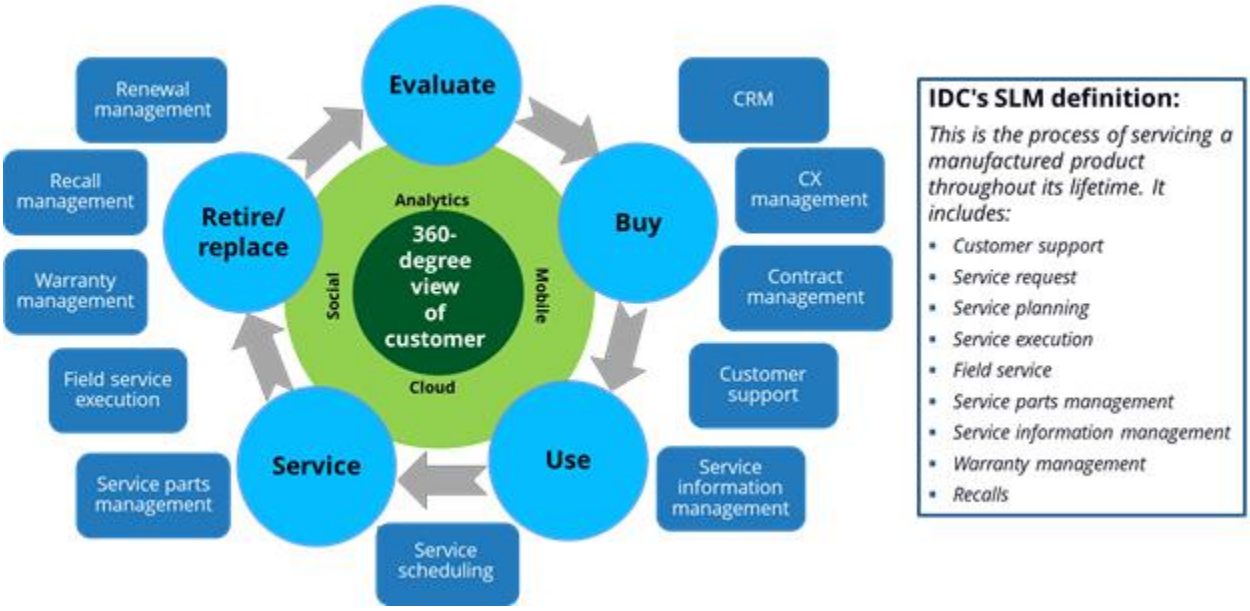
Delivering an enhanced service experience for customers has become a major differentiator for many manufacturers. IDC Manufacturing Insights' 2017 *Product and Service Innovation Survey* highlighted that in the next three to four years, the top business priorities for manufacturers are improving sales and revenue generation and expanding to new markets. To grow both in scope and scale, manufacturers see a need to improve the customer experience through service and deliver new innovative digital service products to expand current relationships with customers.

As manufacturers invest in digital tools and infrastructure, the need to not only improve productivity but also drive profitability through a more customer-centric model is a primary factor in their decisions. IDC's 2017 *Vertical IT and Communications Survey* showed that less than 10% of manufacturers stated they would decrease spend from the prior year on technology. And of those manufacturers that planned to increase spending on technology, they were looking to update or replace outdated technology, support new projects for business functions, support organizational growth, and keep pace with new or changing industry standards. The status quo is no longer good enough for manufacturers, and the desire to improve with the aid of technology and innovation accelerators such as AI, IoT, and AR/VR is driving their transformation decisions.

At IDC Manufacturing Insights, service life-cycle management consists of a number of processes. IDC defines SLM as the process of servicing a product through its lifetime. Figure 1 provides a detailed view into applications and processes, which make up SLM.

FIGURE 1

Service Life-Cycle Management from the Customer's Perspective



Source: IDC Manufacturing Insights, 2018

Company Overview

Tata Consultancy Services (NYSE: TCS) is a global services provider headquartered in Mumbai, India, serving over 235 manufacturing clients globally with a comprehensive digital services suite of capabilities for service life-cycle management that includes the contact center, spare parts management, fleet management, field service, warranty and contract management, and connected products for service. TCS' manufacturing-specific solutions support aerospace and defense, automotive, industrial equipment, high technology, consumer products, and process manufacturing customers. Table 1 highlights some critical background information about TCS.

TABLE 1

Tata Consultancy Services: Company Overview

Category	Details
Headquarters	Mumbai, India
Corporate executives	Rajesh Gopinathan, CEO and managing director Milind Lakkad, global head and EVP, Manufacturing ISU (Industrial Services Unit), EIS Krishnan Ramanujam, president, Business and Technology Services Regu Ayyaswamy, vice president and global head, IoT and Engineering Services
Founded	1968
2017 annual revenue	$19.08 billion
Full-time employees (manufacturing industry specific)	26,000+
Customer in manufacturing	235+
Target market	Within manufacturing industry, TCS customers include automotive, aerospace, industrial, process, metal and mining, medical devices, consumer packaged goods, and high technology. (Today, most engagements are in North America or Europe.)

Source: TCS, 2018

Company Strategy

Product/Service Offering

TCS through its digital products aids customers across a journey that enhances the end customer experience. TCS customers are leveraging tools around Big Data and analytics, mobility, social media, AI and robotics, and the cloud to deliver omni-channel experiences, contextualized interactions, hyper-personalization, and customer empowerment. As customer expectations evolve, the digital toolkit that manufacturers need to support these trends must also adapt to provide better insight and new outcomes. The TCS product family to support SLM transformation and the end-to-end customer experience includes the following:

- **Customer relationship management:** Customer assistance and key account management
- **Warranty management:** Analytics, claims management, and extended contracts management
- **Asset management:** Install-based management, asset life-cycle management, and service inventory management

- **Product life-cycle enhancement:** Remanufacturing and used serviceable materials exchange
- **Service management:** Digital field service management, service asset management, digital twin for service and connected service, and service campaigns and recalls
- **Service knowledge management:** Service catalog, technical publications, bulletins, manuals, and user guides
- **Service parts management:** Digital parts catalog, interactive parts catalog, digital supply chain, 3D printing, integrated parts planning, and inventory optimization

Business Strategy

TCS has implemented a "3D engagement model" strategy to address its client's needs for rich domain expertise, technology expertise, and deep client context. The "3D engagement model" strategy has allowed TCS to create a set of services and digital products, which both meet the specific needs of a client based on their maturity, size, and industry and deliver services that pull from a wealth of knowledge gleaned from different industries.

TCS has focused on delivering value through the following set of capabilities:

- **Services across the value chain:** TCS provides products and services to not only improve and integrate data flows across SLM but also connect other functions such as PLM and product development, customer experience management, supply chain, and manufacturing.
- **Board room to shop floor services:** Service is not only delivered to assets out in the field. TCS helps clients connect their plants and transform to a more predictive maintenance model.
- **Full advisory services:** TCS has a wide ranging suite of advisory services, which include strategy consulting, business consulting, technology consulting, digital consulting, and program management helping clients achieve a connected enterprise.

Pricing Model

Pricing for TCS is available in a standard contractual structure based on service-level agreements (SLAs) and service performance. The company is seeing an uptick in clients that are looking for a more profit-sharing/risk-sharing model, which TCS is able to provide. TCS has established *outcome*-based pricing models where TCS' revenue is based on achieving business objectives for the customer such as productivity improvements or reduction in inventory. TCS also has the ability to provide an "as a service" framework structured around volumes of services delivered. These more dynamic frameworks and partnerships will increase in adoption as manufacturers' own IT infrastructures mature to enable better connectivity and, thus, more advanced service delivery models.

Target Markets

TCS provides global support and coverage into its key vertical markets, with delivery centers located in North America, Europe, Asia/Pacific, Latin America, and the rest of the world. In addition, TCS has a broad group of strategic alliance partners to aid in deployments and digital projects such as Adobe, Amazon Web Services (AWS), Apigee, Apptus, Aras PLM, Salesforce (CloudCraze), ConfigIT Dassault Systèmes, FICO, GE Predix, HighJump, Hybris, IBM, IFS, JDA, Liferay, Magento, Microsoft Azure, Microsoft Dynamics, Mobideo, Oracle, Pegasystems, PTC, PTC Servigistics, Salesforce, SAP, SAS, ServiceMax, ServiceNow, Siemens, Sitecore, SPSS, Vendavo, and Vistaar.

Table 2 provides insight into TCS' SLM manufacturing sector customers by industry.

TABLE 2

TCS SLM: Industry Capabilities Ranked by Customer Base

Manufacturing Sector	Ranking
Farm, construction, and industrial equipment	1
Automotive	2
Process manufacturing	3
Aerospace and defense	4
Medical devices	5
Consumer products	6
Computing and peripherals, semiconductor, and consumer electronics including mobile devices	7

Source: TCS, 2018

FUTURE OUTLOOK

Service and the delivery of enhanced experiences for customers will continue to be a key differentiator for manufacturers as they strive to grow in scale and revenue. Service life-cycle management encapsulates a wide range of activities, and manufacturers will need to establish a strong set of partners to ensure their digital and transformative journey is successful. *IDC FutureScape: Worldwide Manufacturing Product and Service Innovation 2019 Predictions* (IDC #US43135918, October 2018) highlighted how innovation accelerators such as cognitive systems, the IoT, and AR/VR are catapulting manufacturers into a future that is smarter, more connected, and able to deliver new valuable experiences for customers. In particular, we believe that by 2021, 90% of manufacturers will leverage real-time equipment and asset performance data to self-diagnose issues in advance and trigger a service intervention to avoid unplanned downtime. The impact on the customer and the customer's experience with the manufacturer will be transformed as interactions with service won't be a reaction to failure but to predict ways to improve the customer's business and productivity.

As service becomes more strategic for manufacturers, a partnership where goals, revenue, and risk are shared will be necessary to create a landscape where manufacturers, technology providers, and services organizations depend on one another for success. In this environment, it will be key that all stakeholders define customer value and how that can be achieved. TCS has taken a concerted approach to evolve with its clients and empower them to be more customer and data centric. Manufacturers that don't lean on and leverage insights gleaned from assets, products, customers, dealers, suppliers, partners, and the service team will fall behind their competition.

Future Opportunities for Tata Consultancy Services

TCS has established a deep expertise in manufacturing, which is shown out in the company's clients and the digital projects delivered. TCS has helped a number of its clients along in the journey to servitization where they are selling products as a service (i.e., selling usage, remote monitoring). But there are opportunities for TCS to further illuminate and educate its customers and the manufacturing landscape on its ability to deliver across SLM. Manufacturers desire to know that industry-specific expertise is a core competency. In addition, manufacturers desire to know how partners will help along the digital journey, and TCS must continue to provide a clear road map and company vision to aid its customers and manufacturers along this journey. TCS has succeeded in creating an engagement model for manufacturers that establishes expertise. As the company delivers more outcome-based and profit-sharing engagements creating a true partner relationship, manufacturers must continue to see where they fit into the long-term strategy of TCS.

ESSENTIAL GUIDANCE

Advice for IT Buyers

Among the guidance that IDC Manufacturing Insights includes for manufacturers that are evaluating their service life-cycle management approach and digital journey, some are the following:

- Assess your approach regarding which service model, cost or profit center, is correct for you, your team, and your customers.
- Take an inventory of your current IT infrastructure, which supports the service team to identify gaps and opportunities for improvement. Evaluation should also include feedback and insight from the field and customer support teams using the tools.
- Establish partnerships that can help enable a customer-centric focus through tools such as customer portals, AR/VR, predictive service, and real-time visibility into resolution status.
- Reevaluate which are the right metrics to track, and work with partners to ensure these are the KPIs that determine successful deployments and digital projects.
- Explore the value being delivered to customers and what potential new services can be created from connected products and equipment, and look to educate customers on the impact of additional intelligence from these connected products.
- Formulate an ecosystem of partners that can provide both an industry-specific level of expertise and a best level of functional capabilities to support your needs.

LEARN MORE

Related Research

- *How "Outcome Based" Changes Warranty in Manufacturing* (IDC #US42728918, December 2018)
- *IDC PlanScape: Service Parts Management to Leverage Connected Products Insights* (IDC #US44483318, December 2018)
- *IDC FutureScape: Worldwide Manufacturing Product and Service Innovation 2019 Predictions* (IDC #US43135918, October 2018)
- *Market Analysis Perspective: Worldwide Manufacturing Service Life-Cycle Management Applications, 2018* (IDC #US42728717, September 2018)

- *IDC PeerScape: Servitization Practices to Move from a Product Focus to a Service-First Model* (IDC #US42728418, July 2018)
- *IDC PlanScape: Reinventing Field Service Value Through Connected Products* (IDC #US44089818, July 2018)
- *IDC MaturityScape Benchmark: Manufacturing Service Innovation Worldwide, 2018* (IDC #US42728118, December 2017)
- *TCS Innovation Supporting the Digital Future of the Manufacturing Industry* (IDC #US41837517, December 2017)
- *Perspective: TCS Innovation Summit 2016* (IDC #US41290716, May 2016)

About IDC

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