



Tata Group

A global business group

100+ operating companies in 7 business sectors

Information
Technology
&
Communications

Engineering

Materials

Services

Energy

Consumer Products

Chemicals















TCS Overview







\$15.5 B

1200+

Clients

228

Revenue









319,656

Employees 122 nationalities



100,000

Women Associates- 33% **Gender Diversity**



97.4%

Revenue from Repeat Customers



2277 patents applied 206 patents granted

- Best Company of 40 years- Business Standard Annual Awards 2014
- Industry's fastest growing brand over the last five years- Brand Finance
- Top Employer NA, UK & Europe 2015- Top Employers Institute
- Achieved Superbrands status in the UK
- Leading IT Company for 25 years- NASSCOM event
- Multiple awards for TCS L&D- ATD Excellence in Practice citations
- Asia Pacific IBM Choice Award 2015
- Recognized as the #1 most powerful brand in the IT Services industry -2016 Brand Finance



TCS Retail at a glance



Revenue

\$2.1 B



Customers

120+



YoY Growth

13.3%



Contribution to TCS

13.8%



Employees

33,700+



- Highest Rank Offshore IT Provider in Retail
- Full Services in retail; Strong in Integrated ADM-IS
- Deep Domain Expertise; Repository of Assets & Accelerators
- Digital is a major area of focus and investment
- Industry Grade Solutions POS, Merchandising, Loyalty
- Innovation Lab dedicated for Retail

Our Customers







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Industry Leading Retail Products and Solutions Providing the 'Leading Edge' to our Customers in their Digital Journey

RETAIL PRODUCTS



<u>Disrupting POS</u> by creating first of its kind Universal Store Commerce Platform



Advanced Big Data
based assortment and
space management &
competitor pricing – Omni
Channel enabled





Customer Knowledge
Hub on Big Data for a
Customer Centric Retail
Organization

SOLUTIONS

IOT (Internet of Things)
based Connected Store
Command Center to
drive improved operations
and customer engagement

STORE IOT

Beacon Enabled In- Store Digital Journey,

Personal Assistance & Merchandise Pick Up

iBeacon

We are investing to help our Customers stay ahead in the game



Retail Customer Experience Center – Incubation of Next Gen Retail solutions



Design Innovation Lab with Royal College of Arts, London



Co-Innovation Network (COINTM)
Labs, Startups, Academic
Institutions, Technology Alliances



User Experience Design Center, Silicon Valley

Retail R&D Focus

- Immersive In-store Customer

 Experience
- Advanced Business Optimization
- Digital Store Operations
- Checkout Disruption
- Multi-node supply chain







Drone Out of Stock Checker



What are we working on







Digital

- Online/Mobile
 Transformation
- Store Mobility Engagements
- Real time Supply Chain
- Real time Customer knowledge platform

Simplification

- Package Based Transformations (Oracle, SAP)
- Legacy Rationalization
- Cloud Enabled
- APIfication
- UX Transformation

Innovation

- Rapid Prototypes in Digital
- IOT Enablement
- iBeacon Adoption
- Managing Hackathons
- Co-creation

Our Experience



- Digital Transformation for Leading Home Improvement Retailer
- Flexible fulfillment for a leading Toys Retailer
- Real time Supply Chain for Leading Grocery Retailer
- Developing a comprehensive, real time Customer knowledge platform for a leading General
 Merchandise Retailer in US
- Multi Channel Foundation for Leading UK Retailer
- iBeacon based customer engagement solution for Leading Department Store Retailer
- IOT Based Solution for Leading Restaurant Chain
- Information Security support engagement with a Leading General Merchandise Retailer in US
- Large transformation for a Leading Grocery Retailer to replace legacy merchandising systems with SAP IS Retail Solution
- Large Infrastructure Managed Services Support project for a department store chain in US
- Large Transformation project for a UK based fashion retailer
- Peak Season support for Leading General Merchandise Retailer in US
- Store Transformation for a Leading Pharmacy Retail Roll out of new POS to 7000+ Stores, Mobile POS enablement
- End to end transformation of merchandising, CRM and supply chain on Oracle Retail Platform for Leading UK Retailer & Leading Pet Retailer
- Mainframe Elimination with TCS Tool based reverse and forward engineering for Leading Apparel Retailer
- EMV Adoption and PCI Certification for Leading Retailers
- Creation of services factory for leading US Retailer

TCS Digital Capabilities - A Snapshot



Professionals

70+

Partnerships

200+

Patents filed

2200+

Engagements

440+
Customers

Big Data
Archival

Hy5TI Knome
Mbile Platforr Social Collaboration

OFFERINGS

- Mobility services for consumers and enterprises
- Big Data Advisory and Engineering Services
- Cloud enablement and Governance
- Workplace Collaboration and Gamification with Social Enablement
- User Experience Design and Creatives
- Digital Marketing Plan, Design, Execution and Analytics
- Artificial Intelligence and Robotics led process re-engineering

EXPERIENCE

- Analyze social media data (250GB) for valuable insights into Fan Behaviour during NFL for a Global Food and Beverage company
- Leading Asian Airlines and TCS Introduce Crew Collab to digitize the entire cabin crew operations
- Created Europe's first ever 100% Digital bank
- Engineering and telematics data analytics for Remote Engine
 Diagnostics for Leading Manufacturer for Predictive Maintenance

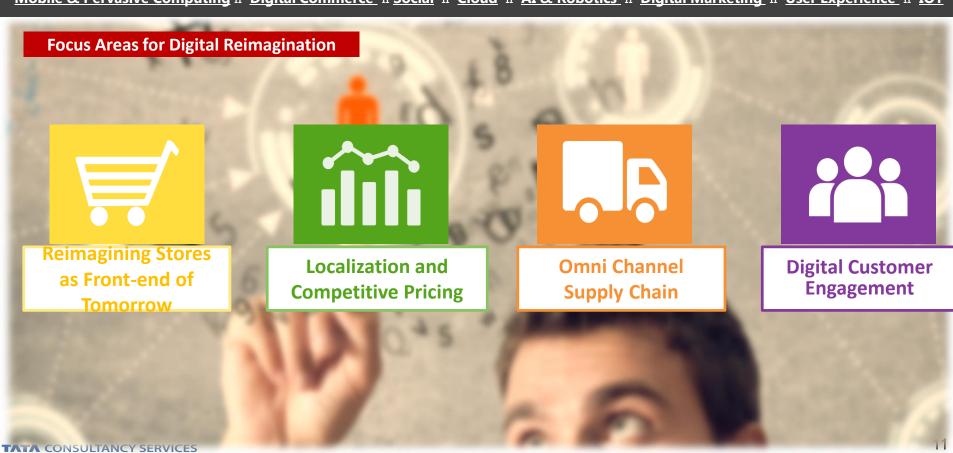
INVESTMENTS

Customer Collaboration Center & Usability Lab
Santa Clara CA

TCS COIN (Co-Innovation Network)

TCS Retail Digital Overview

Mobile & Pervasive Computing II Digital Commerce II Social II Cloud II AI & Robotics II Digital Marketing II User Experience II IOT



Store Reimagination: Front End of Tomorrow



Stores are at the centre of a massive transformation in terms of their strategic role in the multi-channel retail environment. There is an imperative need for enterprises to reimagine stores — with <u>Diqital Physical Customer Experience</u>, <u>Cross-channel orchestration</u>, fulfilment and <u>seamless checkout</u>. <u>Connected Stores with IOT</u>, <u>Empowered associates with Predictive Insights and Intelligent Execution</u> are poised to drive the next-generation of stores with lean operations and technology driven experiences.

Automating 500+ manual decisions and Providing Real-time Predictive Insights and Alerts for Store Managers for daily operations through Real-time, Big Data Analytics on mobile-enabled Manager's Navigator Dashboard. Eliminated 82% of past analysis hours.

<u>First-of-its-kind Interconnected device network and sensor data analytics in stores with TCS' IOT Platform</u> for automated control, monitoring of Store devices and superior customer engagement. Resulted in 20% Power savings and 40% oil savings

In-store Mobile operations across 50,000+ mobile devices for Leading Specialty Retailer in US. Created more headroom for performance by putting knowledge and communication closer at hand to store associates. Functions of store devices consolidated into a single mobile device with Inventory Management, POS, Vendor Returns, Inter Store transfers, resulting in 20% rise in customer facing activities

<u>In-Aisle Digital Experience @ Leading Department Store, US with iBeacon</u> based in store personal shopping assistant – tap for help, connected fitting rooms, member specific pricing, guided product comparisons. Allows for Smart In-store Guidance and Associate Alerts at Pickup area.

OUR INVESTMENTS

- TCS OmniStore POS
- STORE POWER
- STORE IoT
- In-Store Picking
- POS Harmony

Localization and Competitive, Pre-emptive Pricing



Today's consumer is channel agnostic and gravitates towards the retailer & channel which offers the most value with maximum convenience. In this context, retailers need to <u>price competitively</u>, <u>create cross channel assortment</u> tailored to the <u>local needs</u>, <u>localize category space allocation</u> and enrich product information to drive maximum value to the customer

Process consulting and product implementation partner for enabling <u>localization</u> for leading US pharmacy with front store retailer to manage the growth in the number of planograms due to localized assortment and inventory. <u>15K to 128K growth in POG</u> was managed with process improvements, vendor collaboration, POS services and implementation of JDA space planning and POG Gen

Delivered <u>Multichannel real time competitive pricing</u> to track <u>600K+ items</u> with <u>50+ competitors</u> with automated threshold based pricing rule engine for a leading US home improvement retailer and enabled multiple price changes in a day with new mem-cache based architecture and electronic shelf labels for a leading US fashion retailer

Performed <u>customer centric space optimization</u> to drive <u>3-5% increase in sales</u> for worlds leading retailer for pet-food category (by identifying stores to introduce new lines), frozen (by understanding impact of increasing the height without investment in new equipment), baby (by localizing based on number of high birth hospitals in the area) and dry grocery (by right spacing categories based on local demand and pick violation to ensure availability).

OUR INVESTMENTS

OPTUMERATM

- Macro-space Optimization
- Assortment Optimization
- Competitive Pricing
- Category Analysis
- Clustering
- Demand Transfer &
 Customer Decision Tree
- Planogram Compliance
- Concept to contract

CONSULTANCY SERVICES

Digital Customer Engagement



Today's digital customer has multiple choices for research, compare, feel and buy. For a retailer to win the customer at every touch-point, providing **Seamless Customer Engagement** is a must. Retailers are on the path to realize this through Unifying Customer View, Extreme Personalization, creating unique capabilities on Mobile/ Tablet (and wearable) form factors, marketplace capabilities for products and services. Multiple new dimensions are emerging and every company is investing in **Digital Innovation** to create continuous differentiation. The key to deliver **Superior Customer Experience**, is to orchestrate processes leveraging digital forces on new generation toolset and curate milestones of shopping lifecycle. These new opportunities are triggering foundational changes to IT architecture leading to **Digital Architecture Refresh**.

Large US Omni-Channel Specialty Retailer

Strategic Partnership in digital to enable multi-year transformation from Transaction-Centric eCommerce Model to Customer Centric Interconnected Customer Engagement. Marquee programs enabling superior digital customer engagement are Ubiquitous Enterprise Search, Elastic Commerce – Segregate Search, Browse from checkout, Frictionless Purchase Tools, Prodesk connectivity, Mobile to bridge physical-digital divide – In Store Mode, Checkout Optimization to remove barriers from shopping, Store Mobile Enablement to increase customer face time and Internet Execution Processes to realize content authority.

Large US Specialty Retailer

Partnership to develop the foundation to enable advanced Curated assortments and Contextual product discovery. The foundation is driven by algorithmic techniques to create taxonomy, product attributes thus delivering advanced semantic classification of product content. This Ontology driven machine learning approach enables precise search faceting/ filtering, contextual product linkages for recommendations & personalization, automated product & assortments for digital properties.

OUR INVESTMENTS

- BEACON RETAIL FRAMEWORK
- PERIVISTA
- LIST CONNECT Lists & Registry
- EXTREME
 PERSONALIZATION
 DATA SCIENCE
- MyHome IOT

Omni-Channel Supply Chain



To cater to the rising consumer demands of 'Anytime-Anywhere', Retailers need to invest in Omni-Channel Supply Chain with capabilities in <u>Customer Order Orchestration</u>, Visibility to the <u>Customer Landed Cost</u>, <u>Omni-channel Network Design with Node Ranging</u>, Efficient operations with <u>Intelligent warehouse</u> solutions and optimized <u>In-Store picking</u>; most importantly a <u>"One and True" view of Inventory</u>

<u>Large MSP for Multi Channel enablement and EDC/NDC set up for large GM Retailer</u> with 113K+ Ecom. orders/Day with 45% orders D2C. Enabling Intelligent Warehousing distribution operations for a completely automated facility covering retail and online operations. Strategic partner for enablement of integrated order lifecycle management and one view of inventory through <u>Multi Channel Foundation</u> <u>Program</u>

<u>Dark Store operations enablement and omni channel network optimization for Leading food</u> <u>retailer</u>. Recommended locations for Dark Store set up through network optimization analysis and defined key business processes covering cross docking, internal replenishment, zoning & slotting, pick strategies, automation integration & Reverse logistics

In-store Picking Operations Enablement for a leading grocery retailer through highly configurable pick rules and order grouping. Digital enablement on tablets, RF Guns and Web. E2E operations enablement covering order receipt, allocation, pick task creations and customer intimations. Built in optimization through cost effective picking by grouping for optimized pick path, order types, carrier types and units per order. Integrated with merchandizing and customer apps.

OUR INVESTMENTS

- FORWARD (DC Flow Optimizer)
- DC Cockpit –
 OmnChannel Warehouse
 Management Console
- iForesee Advanced
 Scientific forecasting
- Supply Chain Simulation and Modeling

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Big Data



Big Data Technologies and the business capabilities derived from Big Data Analytics are of particular relevance to retailers. Complex data sources have emerged through the lifecycle of digital customers. While Mapping and Consolidation of data storage is leading to immediate <u>Technology Simplification</u>, today retailers are building matured capabilities to derive <u>Cross Channel Customer Insights</u> and <u>Improved Visibility into the Omni-channel Supply Chain</u>. Retailers are also creating significant core retail capabilities in core retail functions like Agile Pricing & Omni-Channel Merchandising

World's largest real-time Customer Knowledge Platform implemented for the leading retailer -

Created a Customer360 Analytical view by linking over 150 Mn profiles with transactions & interactions. The platform across banners and channels has improved identification rates by 10% and is delivering unique cross-channel, cross-brand insights for shopper-driven marketing & merchandising decisions resulting in cross Channel revenues up by 8-10%. Also, developed Customer IQ as a Suite of analytics and data visualizations across carts, categories, and customers for marketing, merchandising & pricing 15+ Patents developed jointly with customer along with a strong technology dominance in a Multitude of Big data, Analytics, Visualization

<u>Pricing Knowledge Platform for a leading US retailer:</u> Developed cohesive Analytical pricing insights platform for price management across the organization with integrated internal, external and syndicated data. Built for scale i.e. manages prices for 100k Items with 20+ Competitors data comparison

<u>Data Archival Solution on TCS Archival Tool for a leading Grocer – driving its Simplification strategy.</u>
TCS leverages its proprietary product on Big Data for Data Extraction, Retrieval, Viewing, Storing and Management – reducing the overall cost of archival by over 40%

OUR INVESTMENTS

- TCS Perivista[™] Customer 3600 Platform on Big Data
 - Unique customer Identification
 - Customer Insights
 - Social Listening
- TCS Data Archival Big Data based Archival Solution

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RETAIL PRODUCTS



<u>Disrupting POS</u> by creating first of its kind Universal Store Commerce Platform



Advanced Big Data based
assortment and space
management & competitor
pricing – Omni Channel
enabled



Customer Knowledge Hub on Big Data for a Customer Centric Retail Organization

INNOVATION LAB



POG Compliance

Automated store shelf compliance measurement through unique image matching algorithm based mobile app



Out of Stock Checker by Drone

Identifies gaps / out of stock situations in store shelfs



AR Navigator

Smartphone app that identifies within the store categories/ products via an AR interface



3D Virtual Store

Unity based game application that reimagines online shopping by creating fully immersive shopping experience

