Everest Group PEAK Matrix™ for Capital Markets BPO Service Providers

Focus on TCS
October 2018
Introduction and scope

Everest Group recently released its report titled “Capital Markets BPO – Service Provider Landscape with Services PEAK Matrix™ Assessment 2018.” This report analyzes the changing dynamics of the capital markets BPO landscape and assesses service providers across several key dimensions.

As a part of this report, Everest Group updated its classification of 20+ service providers on the Everest Group PEAK Matrix™ for capital markets BPO into Leaders, Major Contenders, and Aspirants. The PEAK Matrix is a framework that provides an objective, data-driven, and comparative assessment of capital markets BPO service providers based on their market impact and vision & capability. Everest Group also identified three service providers as the “2018 Capital Markets BPO Star Performers” based on the strongest forward movement demonstrated on the PEAK Matrix Year-On-Year (YOY).

Based on the analysis, TCS emerged as a Leader and Star Performer. This document focuses on TCS’ capital markets BPO experience & capabilities and includes:

- TCS’ position on the capital markets BPO PEAK Matrix
- Detailed capital markets BPO profile of TCS

Buyers can use the PEAK Matrix to identify and evaluate different service providers. It helps them understand the service providers’ relative strengths and gaps. However, it is also important to note that while the PEAK Matrix is a useful starting point, the results from the assessment may not be directly prescriptive for each buyer. Buyers will have to consider their unique situation and requirements, and match them against service provider capability for an ideal fit.

Source: Everest Group (2018) unless cited otherwise
Everest Group PEAK Matrix™
Capital Markets BPO – Service Provider Landscape with Services PEAK Matrix™ Assessment 2018 | TCS positioned as Leader and Star Performer

Note: Assessment for Capgemini, Conduent, eClerx, FIS, NIIT Technologies, TMF Group, and Viteos excludes service provider inputs and is based on Everest Group’s proprietary Transaction Intelligence (TI) database, service provider public disclosures, and Everest Group’s interactions with buyers.
Company overview
Tata Consultancy Services (TCS) is an IT, consulting, and business process services solutions provider. Its offerings span consumer banking and corporate businesses that include retail banking, cards, loans, trade services, cash management, and capital markets (including wealth & asset management and investment banking). TCS has established units and Center Of Excellences (CoEs) to bring innovation to the mortgage industry that includes ML-based cognitive document digitization solutions, Artificial Intelligence (AI)-based chatbot solutions, and digital and cloud solutions & offerings.

Key leaders
⚫ Mohan R Veeturi, Global Head, BFSI BPS
⚫ Ashish Johri, Head, Capital Markets BFSI BPS
⚫ Srividya Konduparthi, Head Solutions and Offerings, Capital Markets, BFSI BPS

Headquarters: Mumbai, India
Website: www.tcs.com

Suite of services
⚫ Client and securities reference data management services
⚫ Trade confirmation and settlement
⚫ Wealth management services and brokerage
⚫ Financial reporting, cash management, and financing
⚫ Stock lending and transfer agency
⚫ Asset management and servicing
⚫ Custody & fund administration
⚫ Reconciliations and derivatives processing
⚫ Risk management operations and controls

Capital markets BPO

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (US$ million)</td>
<td>152</td>
<td>180</td>
<td>ND</td>
</tr>
<tr>
<td>Number of FTEs</td>
<td>4,960</td>
<td>4,800</td>
<td>4,500-4,700</td>
</tr>
<tr>
<td>Number of clients</td>
<td>22</td>
<td>25</td>
<td>30-35</td>
</tr>
</tbody>
</table>

Recent developments
⚫ 2017: Developed an enrichment to automation framework with cognitive and AI-based approach, e.g., OCR for structured & semi-structured documents and webcrawling for maximizing data extraction from configured websites
⚫ 2017: Developed a construct (Quartz solution), leveraging blockchain to reduce duplication
⚫ 2017: Invested in creating a framework to indicate risk scores for trade, thereby assisting the bank to take timely and necessary corrective action to avoid regulatory and financial risks
⚫ 2016: Developed a framework through an AI technique for MiFID II regulation, which is scalable to other regulations as well
⚫ 2016: Developed an integrated suite of solutions addressing the challenges of the current onboarding process through advisory, process reengineering, platform enhancements, and automation of operations

Recent acquisitions and partnerships
⚫ 2017: Partnered American software company to identify, design, develop, deliver, and maintain robots for multiple processes
⚫ 2017: Partnered with IBM Watson in a chatbot deployment for a leading bank in Canada to enhance their customer experience

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Location landscape

- Mumbai
- Pune
- Dalian
- Bangalore
- Chennai
- Nagpur
- Hyderabad
- Guadalajara
- Gurgaon
- Kochi
# TCS | Capital markets BPO profile (page 3 of 6)
## Key clients and capabilities

### Key capital markets BPO engagements

<table>
<thead>
<tr>
<th>Client name</th>
<th>Line of Business (LoB)</th>
<th>Region</th>
<th>Client since</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Canada-based premier investment management firm</td>
<td>Investment banking</td>
<td>North America</td>
<td>2016</td>
</tr>
<tr>
<td>The largest banking and financial services holding company</td>
<td>Asset management and custody</td>
<td>North America</td>
<td>2015</td>
</tr>
<tr>
<td>One of the top 10 U.S. investment banks</td>
<td>Investment banking and brokerage</td>
<td>Asia-Pacific, North America, and United Kingdom</td>
<td>2010</td>
</tr>
<tr>
<td>A global Fortune 50 retail banking group</td>
<td>Investment banking</td>
<td>United Kingdom</td>
<td>2010</td>
</tr>
<tr>
<td>A large global bank</td>
<td>Asset management, custody, and brokerage</td>
<td>Asia-Pacific, United Kingdom, and North America</td>
<td>2008</td>
</tr>
</tbody>
</table>

### Capital markets BPO FTE mix by segment

- **100% = 4,500-4,700**
  - Brokerages: 8%
  - Custodians: 9%
  - Asset managers: 13%
  - Investment banks: 70%

### Capital markets BPO revenue mix by geography

- **100% = Not disclosed**
  - APAC: 13%
  - Continental Europe: 17%
  - North America: 37%
  - UK: 33%

### Capital markets BPO FTE split by delivery location

- **100% = 4,500-4,700**
  - Onshore: 92%
  - Nearshore: 5%
  - Offshore: 3%

### Capital markets BPO revenue mix by buyer size

- **100% = Not disclosed**
  - Small: 23%
  - Medium: 4%
  - Large: 73%

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1 Buyer size is defined as large (>US$10 billion in revenue), medium (US$5-10 billion in revenue), and small (<US$5 billion in revenue)
## Technology solutions/tools

<table>
<thead>
<tr>
<th>Application</th>
<th>LoB</th>
<th>Year launched</th>
<th>Description</th>
<th>No. of BPO clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUARTZ blockchain</td>
<td>All</td>
<td>2017</td>
<td>The solution allows KYC services to be provided over blockchain, with valid entity data being captured once on the ledger, and immediately available to each of the registered, authorized participants on the blockchain</td>
<td>Not disclosed</td>
</tr>
<tr>
<td>RPA solution for trade norms compliance</td>
<td>All</td>
<td>2015</td>
<td>RPA solution to ensure that trade confirms are documented and signed by both parties and maintained in a SOX-compliant documentation system for audit purposes</td>
<td>Not disclosed</td>
</tr>
<tr>
<td>TCS BaNCS reconciliation</td>
<td>All</td>
<td>2015</td>
<td>TCS BaNCS for reconciliations manages a range of transactions emanating from a wide range of assets across multiple market segments and is integrated with the TCS BaNCS suite of solutions</td>
<td>Not disclosed</td>
</tr>
<tr>
<td>RPA solution for corporate actions &amp; account opening</td>
<td>All</td>
<td>2014</td>
<td>RPA solution to reduce operating cost of clients, increase their straight through processing rate, decrease operational/volume risks, as well as reduce dependencies on specialist knowledge</td>
<td>Not disclosed</td>
</tr>
<tr>
<td>TRAPEZE™ suite of products</td>
<td>All</td>
<td>2012</td>
<td>TRAPEZE™ delivery excellence framework encompasses practices, solution accelerators, and methodologies that ensure seamless transition, superior delivery, transparency, and value creation for clients</td>
<td>Not disclosed</td>
</tr>
</tbody>
</table>
| TCS BaNCS compliance & wealth management securities processing & trading | All | 2007          | TCS BaNCS compliance is a web-based, enterprise-wide solution for monitoring money-laundering activities across various banking LoBs:  
  - Portfolio performance management solution  
  - Clearing & settlement for custodian  
  - Brokers’ front-office platform for trading in sell-side or buy-side | Not disclosed     |
## Risk management & regulatory reporting

<table>
<thead>
<tr>
<th>Risk management support</th>
<th>Details</th>
<th>No. of BPO clients</th>
</tr>
</thead>
</table>
| Credit risk             | TCS is engaged in multiple activities to support the following:  
  ● Pre-sanction & post-sanction decision-making  
  ● Credit operations including, but not limited to, static data maintenance, facility set up, and customer hierarchy maintenance  
  ● Model validations  
  ● Senior management & regulatory reporting  
  ● Small ticket renewal and account closures | <5 |
| Operations risk         | Revocation of physical access logs are reviewed on periodic basis and reconciled for timely revocation based on due dates intimated. Any gaps/delays beyond threshold are highlighted to onsite teams for justification and further review | <3 |
| Market risk             | Supports market risk production activities such as:  
  ● Market data time series sourcing, cleansing & validation, and supports scenario generation  
  ● Validation and reporting of sensitivities, Value at Risk (VaR), and economic capital reporting  
  ● BCBS and MIS reporting  
  ● Performs proof and control function to ensure completeness and accuracy | <5 |
| Liquidity risk          | Reporting on liquidity position across debt, equity, FX, issuance, derivatives, cash, and stable business asset classes. Computing maximum cash outflows for the business at asset-level and performing global and local stress testing on the same | <3 |

<table>
<thead>
<tr>
<th>Regulatory reporting support</th>
<th>List of regulations</th>
<th>Description</th>
<th>No. of BPO clients</th>
</tr>
</thead>
</table>
| U.S. regulations            | DFA, Federal Reserve (UMR) | ● Business analysis, operations, and UAT activities related to ISDA documents  
  ● Client onboarding and reporting for the two largest European banks | <3 |
| UK regulations              | MiFID II, GDPR      | ● Reference data management (LEI)  
  ● Client data remediation  
  ● MiFID II regulatory reporting | <5 |
| EU regulations              | MiFID II, GDPR      | ● Reference data management (LEI)  
  ● Client data remediation  
  ● MiFID II regulatory reporting | <5 |
TCS | Capital markets BPO profile (page 6 of 6)

Everest Group assessment – Leader

<table>
<thead>
<tr>
<th>Market impact</th>
<th>Vision &amp; capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market adoption</td>
<td>Overall</td>
</tr>
<tr>
<td>Portfolio mix</td>
<td>Scope of services offered</td>
</tr>
<tr>
<td>Value delivered</td>
<td>Innovation and investments</td>
</tr>
<tr>
<td>Overall</td>
<td>Delivery footprint</td>
</tr>
<tr>
<td></td>
<td>Vision and strategy</td>
</tr>
</tbody>
</table>

**Strengths**

- With a high market adoption and a broad scope of services offered, TCS is a Leader on the capital markets BPO PEAK Matrix.
- TCS has been able to grow its portfolio successfully over the years by enhancing its technology offerings and cross-selling capital markets BPO services to its clients from other segments.
- TCS enjoys a strong hold of the capital markets BPO segment in most of the geographies and has been able to command one of the highest market shares in the United Kingdom and Continental Europe.
- TCS has been investing continuously to boost its digital offerings and domain expertise especially for risk & regulatory management services, and its “as-a-service” segment of offerings. It has entered into targeted partnerships with some big technology providers to enhance its solutions on the capital markets side.

**Areas of improvement**

- While TCS enjoys a very high share of the capital markets BPO market in general, it has huge room for growth in the small and mid-sized buyer segment where it currently has a limited play.
- Even though, buyers are highly satisfied with their relationship with TCS in general, there is a scope for improvement by bringing in more innovation and value-added services into the picture.
- Despite having one of the most sophisticated set of technology and analytics capabilities, the inclusion of these elements in the capital markets BPO deals could be improved.
Appendix
### Capital markets BPO by LoB | Definitions

#### Key processes across the value chain

<table>
<thead>
<tr>
<th>Front office</th>
<th>Middle office</th>
<th>Back office</th>
<th>Risk &amp; regulatory management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and analytics</td>
<td>Exception management</td>
<td>Collateral evaluation</td>
<td>KYC checks</td>
</tr>
<tr>
<td>Client onboarding</td>
<td>Trade capture and allocation</td>
<td>Fund administration*</td>
<td>AML checks</td>
</tr>
<tr>
<td>Sales support</td>
<td>Trade matching</td>
<td>Fund accounting*</td>
<td>Retail credit risk</td>
</tr>
<tr>
<td>Order management</td>
<td>Trade enrichment/repair</td>
<td>Clearing &amp; settlement</td>
<td>Regulatory reporting &amp; compliance</td>
</tr>
<tr>
<td>Data management</td>
<td>Data management</td>
<td>Reconciliations</td>
<td>Other risk categories (liquidity, market risk etc.)</td>
</tr>
</tbody>
</table>

#### Buying segments

- **Investment banks**
- **Asset managers**
- **Custodians**
- **Brokerages**
  - Corporate investment managers
  - Wealth managers

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* Primarily undertaken by Asset managers and Custodians
Everest Group PEAK Matrix™ is a proprietary framework for assessment of market impact and vision & capability.
Services PEAK Matrix™ evaluation dimensions

Measures impact created in the market – captured through three subdimensions

- **Market adoption**
  - No. of clients, revenue base, and YOY growth, deal value/volume

- **Portfolio mix**
  - Diversity of client/revenue base across geos and type of engagements

- **Value delivered**
  - Value delivered to the client based on customer feedback and transformational impact

Measures ability to deliver services successfully. This is captured through four subdimensions

- **Vision and strategy**
  - Vision for the client and itself; future roadmap and strategy

- **Scope of services offered**
  - Depth and breadth of services portfolio across service sub-segments / processes

- **Innovation and investments**
  - Innovation and investment in the enabling areas, e.g., technology IP, industry/domain knowledge, innovative commercial constructs, alliances, M&A, etc.

- **Delivery footprint**
  - Delivery footprint and global sourcing mix
Everest Group confers the Star Performers title on providers that demonstrate the most improvement over time on the PEAK Matrix™

Methodology
Everest Group selects Star Performers based on the relative YOY improvement on the PEAK Matrix

In order to assess advances on market impact, we evaluate each service provider's performance across a number of parameters including:
- Yearly ACV/YOY revenue growth
- # of new contract signings and extensions
- Value of new contract signings
- Improvement in portfolio mix
- Improvement in value delivered

In order to assess advances on vision and capability, we evaluate each service provider's performance across a number of parameters including:
- Innovation
- Increase in scope of services offered
- Expansion of delivery footprint
- Technology/domain specific investments

We identify the service providers whose improvement ranks in the top quartile and award the Star Performer rating to those service providers with:
- The maximum number of top-quartile performance improvements across all of the above parameters AND
- At least one area of top-quartile improvement performance in both market success and capability advancement

Star Performers are identified by top quartile performance improvement on the X and Y axes for each segment

The Star Performers title relates to YOY performance for a given service provider and does not reflect the overall market leadership position, which is identified as Leader, Major Contender, or Aspirant.
FAQs

Does the PEAK Matrix™ assessment incorporate any subjective criteria?
Everest Group’s PEAK Matrix assessment adopts an unbiased and fact-based approach (leveraging service provider / technology vendor RFIs and Everest Group’s proprietary databases containing providers’ deals and operational capability information). In addition, these results are validated / fine-tuned based on our market experience, buyer interaction, and provider/vendor briefings.

Is being a “Major Contender” or “Aspirant” on the PEAK Matrix, an unfavorable outcome?
No. The PEAK Matrix highlights and positions only the best-in-class service providers / technology vendors in a particular space. There are a number of providers from the broader universe that are assessed and do not make it to the PEAK Matrix at all. Therefore, being represented on the PEAK Matrix is itself a favorable recognition.

What other aspects of PEAK Matrix assessment are relevant to buyers and providers besides the “PEAK Matrix position”?
A PEAK Matrix position is only one aspect of Everest Group’s overall assessment. In addition to assigning a “Leader”, “Major Contender,” or “Aspirant” title, Everest Group highlights the distinctive capabilities and unique attributes of all the PEAK Matrix providers assessed in its report. The detailed metric-level assessment and associated commentary is helpful for buyers in selecting particular providers/vendors for their specific requirements. It also helps providers/vendors showcase their strengths in specific areas.

What are the incentives for buyers and providers to participate/provide input to PEAK Matrix research?
- Participation incentives for buyers include a summary of key findings from the PEAK Matrix assessment
- Participation incentives for providers/vendors include adequate representation and recognition of their capabilities/success in the market place, and a copy of their own “profile” that is published by Everest Group as part of the “compendium of PEAK Matrix providers” profiles

What is the process for a service provider / technology vendor to leverage their PEAK Matrix positioning and/or “Star Performer” status?
- Providers/vendors can use their PEAK Matrix positioning or “Star Performer” rating in multiple ways including:
  - Issue a press release declaring their positioning. See citation policies
  - Customized PEAK Matrix profile for circulation (with clients, prospects, etc.)
  - Quotes from Everest Group analysts could be disseminated to the media
  - Leverage PEAK Matrix branding across communications (e-mail signatures, marketing brochures, credential packs, client presentations, etc.)
- The provider must obtain the requisite licensing and distribution rights for the above activities through an agreement with the designated POC at Everest Group.

Does the PEAK Matrix evaluation criteria change over a period of time?
PEAK Matrix assessments are designed to serve present and future needs of the enterprises. Given the dynamic nature of the global services market and rampant disruption, the assessment criteria are realigned as and when needed to reflect the current market reality as well as serve the future expectations of enterprises.
About Everest Group

Everest Group is a consulting and research firm focused on strategic IT, business services, and sourcing. We are trusted advisors to senior executives of leading enterprises, providers, and investors. Our firm helps clients improve operational and financial performance through a hands-on process that supports them in making well-informed decisions that deliver high-impact results and achieve sustained value. Our insight and guidance empower clients to improve organizational efficiency, effectiveness, agility, and responsiveness. What sets Everest Group apart is the integration of deep sourcing knowledge, problem-solving skills and original research. Details and in-depth content are available at [www.everestgrp.com](http://www.everestgrp.com).

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