Background of the research

In recent years, data-driven decision making has become the backbone of healthcare enterprises’ growth strategy to reduce costs, enhance operational efficiency, deliver better member/patient engagement, and improve health outcomes. The pandemic has further accelerated the adoption of analytics as enterprises need to become more agile and meet the unprecedented demands faced by the healthcare ecosystem. Although payers are ahead of providers in leveraging analytics, the majority of the enterprises are yet to access the complete benefits of analytics initiatives due to the lack of right skillsets, adoption of analytics in silos, and inefficient data management practices. Service providers can help enterprises formulate the core vision for analytics, modernize their data landscape, derive insights, and provide the right set of recommendations to enable enterprise-wide decision making that drives business value.

In this context, we present an assessment of 25 service providers featured on the Healthcare Analytics Services PEAK Matrix® Assessment 2022. Each service provider profile offers a comprehensive picture of its services focus through a snapshot of its key strengths and limitations, as assessed by Everest Group. The assessment is based on Everest Group’s annual RFI process for the calendar year 2021, interactions with leading service providers, client reference checks, and an ongoing analysis of the healthcare analytics services market.

In this report, we are focusing on:

- Market trends for healthcare analytics services
- Assessment of the service providers on several capability- and market success-related dimensions
- Enterprise sourcing considerations highlighting the strengths and limitations of each service provider

Scope of this report:

- Geography: Global
- Industry: Healthcare (payer and provider)
- Services: Analytics services
Healthcare analytics services PEAK Matrix® characteristics

Leaders:
Accenture, Cognizant, Deloitte, EXL, NTT DATA, Optum, and TCS
- Leaders serve as strategic partners to enterprises and have established themselves as front runners to support the clients in their analytics initiatives
- They have made meaningful internal investments in building a balanced and comprehensive portfolio of analytics solutions and platforms to help clients achieve faster business outcomes
- Leaders demonstrate strong domain-centricity, thought leadership, and a focus on innovation. They leverage their technology partnership ecosystem to develop innovative healthcare-specific analytics use cases and show proactiveness in bringing these offerings to the clients

Major Contenders:
Capgemini, CitiusTech, DXC Technology, emids, GAVS, HCL Technologies, IBM, Infinite Computer Solutions, Infosys, PwC, SoftServe, Tech Mahindra, Virtusa, and Wipro
- Major Contenders demonstrate cost-competitiveness and client intimacy, and that has helped them maintain a strong base of satisfied clientele for their healthcare analytics services
- Compared to Leaders, most of the Major Contenders do not have a comprehensive analytics services portfolio; however, many of these players have the vision to offer end-to-end analytics offerings to clients. They are investing in building their IP and enhancing their partnerships with technology vendors to improve their analytics capabilities and increase their market foothold

Aspirants:
ACS Solutions, HGS, Infostretch, and UST
- Aspirants are trying to increase their market presence by building domain-specific offerings; however, these offerings are skewed toward payers or providers
- They need to build a more mature technology partnership ecosystem, and make strategic investments to broaden their analytics capabilities and develop solutions for both healthcare payers and providers
Everest Group PEAK Matrix®
Healthcare Analytics Services PEAK Matrix® Assessment 2022 | Cognizant positioned as Leader

Everest Group Healthcare Analytics Services PEAK Matrix® Assessment 2022¹

1 Assessments for CitiusTech, Deloitte, DXC Technology, IBM, Infostretch. Infosys, PwC, Tech Mahindra, UST, and Wipro exclude service provider inputs and are based on Everest Group’s proprietary Transaction Intelligence (TI) database, service provider public disclosures, and Everest Group’s interactions with buyers.

Cognizant | healthcare analytics services profile (page 1 of 5)

Overview

Company vision & strategy
Cognizant’s vision is to become the preferred analytics and AI partner for healthcare companies through its specific tools such as patient insight journey, IHX, and analytical platforms that can be deployed out of the box; in conjunction with a highly experienced team. This combination will enable clients to address the key challenges in revenue and cost pressure. The company also aims to offer solutions to reduce working and fixed capital by working closely with clients.

Healthcare analytics services revenue

<table>
<thead>
<tr>
<th>Revenue by segment</th>
<th>Low (&lt;20%)</th>
<th>Medium (20-50%)</th>
<th>High (&gt;50%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BI &amp; visualization services</td>
<td></td>
<td></td>
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<tr>
<td>Advanced healthcare analytics and next-generation services</td>
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<tr>
<td>Strategy &amp; consulting services</td>
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<td></td>
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<tr>
<td>Others</td>
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</tbody>
</table>

Revenue by buyer size

<table>
<thead>
<tr>
<th>Revenue by buyer size</th>
<th>Low (&lt;20%)</th>
<th>Medium (20-40%)</th>
<th>High (&gt;40%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (annual revenue &lt; US$1 billion)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Medium (annual revenue = US$1-10 billion)</td>
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<td></td>
<td></td>
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<tr>
<td>Large (annual revenue &gt; US$10 billion)</td>
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</table>

Revenue by geography

<table>
<thead>
<tr>
<th>Revenue by geography</th>
<th>Low (&lt;10%)</th>
<th>Medium (10-40%)</th>
<th>High (&gt;40%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
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<tr>
<td>UK</td>
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<tr>
<td>Rest of Europe</td>
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</tr>
<tr>
<td>South America</td>
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</tr>
<tr>
<td>Middle East &amp; Africa</td>
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<td></td>
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<tr>
<td>Asia Pacific</td>
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</tr>
</tbody>
</table>
**Cognizant | healthcare analytics services profile** (page 2 of 5)

**Offerings**

<table>
<thead>
<tr>
<th>Proprietary solutions for healthcare analytics (representative list)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Solutions</strong></td>
</tr>
<tr>
<td>LEAF</td>
</tr>
<tr>
<td>Cognizant BigDecisions®</td>
</tr>
<tr>
<td>Intelligent Data Works</td>
</tr>
<tr>
<td>TriZetto® ClaimSphere® Clinical+</td>
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<tr>
<td>TriZetto® ClaimSphere® QaaS</td>
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</tbody>
</table>
## Recent developments

### Key events (representative list)

<table>
<thead>
<tr>
<th>Event name</th>
<th>Type of event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic acquisitions</td>
<td>Acquisition</td>
<td>Cognizant’s recent notable acquisitions include Magenic Technologies, Servian, Inawisdom, Bright Wolf, 10th Magnitude, and New Signature to strengthen its healthcare analytics services with healthcare cloud transformation, IoT, data analytics, AI/ML, and DevOps capabilities. These acquisitions contribute to improving its overall business capabilities by bringing together a range of differentiated technical, functional, and domain-specific expertise.</td>
</tr>
<tr>
<td>Investment in cloud AI and analytics resources</td>
<td>Investment</td>
<td>The investment enables Cognizant’s AIA team to have access to 20+ virtual analytics and deep learning AMI/VMs and US$500 thousand worth of cognitive / analytics / deep learning / ML services on cloud platforms such as Azure, AWS, GCP, and Watson.</td>
</tr>
<tr>
<td>Cognizant Academy of Data Sciences (CADS)</td>
<td>Investment</td>
<td>It provides 80+ hours (for tenured associates) and 240 hours (for new joiners) of free training delivered by leading data analytics and AI trainers. The learning model leverages research, learning, and training to build and nurture best-of-breed data sciences talent around AI using continuous skill-upgrade and a comprehensive curriculum.</td>
</tr>
<tr>
<td>Hackathons</td>
<td>Initiative</td>
<td>The company conducts regular hackathons with internal associates &amp; select clients to solve business problems with data &amp; analytics. It has also participated in the IEEE Hackathon sponsored by EON for household level energy forecast, Pfizer breakthrough change accelerator hackathon, Pfizer SDTM coding challenge, Anthem global hackathon for provider rank forecasting, sponsorship with X-Prize for global COVID planning hackathon, etc.</td>
</tr>
<tr>
<td>Evolutionary AI lab</td>
<td>Investment</td>
<td>Located in San Francisco, the lab focuses on evolutionary AI research and development and has published many scientific papers.</td>
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</tbody>
</table>
### Case study 1: Improve efficiency and effectiveness of handling prior authorization requests

**Business challenge**
A leading US-based payer’s clinical review team was receiving two million Prior Authorization (PA) requests annually. To increase the efficiency and effectiveness, the client wanted to:
- Reduce the dependency on manual approvers for making a decision on approval / denial of prior authorization request
- Design a data-driven PA approval methodology – augment the clinical intelligence already in clinical policies for authorization request approval

**Solution**
- Analyzed historical patterns of approvals/denials from claims data (medical, pharmacy, and labs), socio economic data (internal & external), member demographics, and physician information
- Developed machine learning models (decision tree) that classify prior authorization requests to be approved with 75-85% accuracy
- Proprietary tools used: supervised ML models, data quality enrichment solution, and patient 360 degree view model

**Impact**
- Anticipated increase in automated approval rate for Prior Authorization (PA) requests:
- Achieved 100% improvement (from current 4% to 8%) over current auto-approval rate for drug PA for plaque psoriasis
- Resulted in 70% improvement (from current 10% to 17%) over current auto-approval rate for drug PA for severe rheumatoid arthritis
- Reduced manual effort and processing time for decision on incoming PA requests
- Increased member, provider, and pharmacy satisfaction

### Case study 2: Transformation of outreach strategy

**Business challenge**
The client, an American managed healthcare company, wanted to transform its outreach strategy using insights gleaned from existing historical data to improve the star rating by reducing member complaints and grievances.

**Solution**
- Created a framework for validation and monitoring using advanced analytics and ML so that learning from present year can be leveraged more efficiently in the coming years
- Proprietary tools used: advanced analytics and ML-based validation and monitoring framework

**Impact**
- Analytics gave insights to reasons for member churn and dissatisfaction, which can be leveraged in other initiatives
- Cost saving due to efficient and judicial assignment of high-cost channels. which resulted in around US$440 thousand saving from live agent calls and US$60 thousand from IVR calls
- Estimated additional revenue of US$600-900 thousand through better member retention
## Cognizant | healthcare analytics services profile (page 5 of 5)

### Everest Group assessment – Leader

<table>
<thead>
<tr>
<th>Measure of capability:</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
</table>

### Strengths

- Its vast suite of healthcare platforms and solutions for data management (including C-HIDM & Cognizant BigDecisions® that simplify data sourcing and management) and analytics (such as Intelligent Data Works & LEAF that support AI/ML usage for advanced insights) are valued by the clients, and helps Cognizant to make an impact across three areas – outcomes, operations, and financials management.

- Cognizant is building assets to address new growth opportunities and emerging business challenges in healthcare such as moving beyond compliance in price transparency and leveraging Social Determinants of Health (SDoH) for improving outcomes.

- The company has invested in building a strong ecosystem of analytics-centric partnerships (such as AWS, Data Robot, Microsoft, and IBM) and has made strategic acquisitions that have helped it to enhance its next-generation capabilities.

- Clients acknowledge Cognizant’s strong technical and domain expertise in healthcare as well as its agility in resolving issues and establishing a long-standing relationship.

### Limitations

- Despite the investments made by Cognizant for retaining talent, it experienced one of the highest attrition rates among the peers in 2021. Gaps in skillsets and staffing challenges are commonly cited issues by clients.

- While Cognizant has rich experience in serving clients in North America, its client base in other potential high growth markets such as Europe and Asia Pacific is limited.

- Cognizant should explore innovative pricing constructs such as outcomes-based pricing and risk sharing models to further enhance its credibility. Clients are looking for risk-sharing pricing constructs, especially in renewal deals.

<table>
<thead>
<tr>
<th>Market impact</th>
<th>Vision &amp; capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market adoption</td>
<td>Overall Vision and strategy</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>
</tbody>
</table>

#### Table: Measure of capability

- Market adoption
- Portfolio mix
- Value delivered
- Overall Vision and strategy
- Scope of services offered
- Innovation and investments
- Delivery footprint
- Overall
Appendix
Everest Group PEAK Matrix® is a proprietary framework for assessment of market impact and vision & capability

Everest Group PEAK Matrix

Vision & capability
(Measures ability to deliver services successfully)

Market impact
(Measures impact created in the market)

High
Low
High
Low

Leaders
Major Contenders
Aspirants
Services PEAK Matrix® evaluation dimensions

Measures impact created in the market – captured through three subdimensions

- **Market adoption**
  - Number of clients, revenue base, YOY growth, and deal value/volume

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

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

**Vision & capability**

- **Leaders**
- **Major Contenders**
- **Aspirants**

**Market 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 subsegments/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
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.