



Everest Group PEAK Matrix[®] for Artificial Intelligence (AI) Service Provider 2022

Focus on Cognizant
March 2022



Background of the research

AI has reached a critical juncture and it now moving toward mass adoption and industrialization accelerated by the pandemic. We are seeing AI adoption at a much larger scale across different enterprise segments and industries, as enterprises look to bounce back from the pandemic more resilient and disruption-proof. As a result of this push, enterprises are employing AI as a lever in the broader digital transformation to improve cost-effectiveness, increase employee productivity, manage risks, and better target customers in the digital realm. We expect this wave of AI adoption to continue as more and more businesses look to AI to overcome challenges and sustain their business growth.

This deep percolation of AI across a wide array of enterprises will become the watershed moment known for the advancing and propagation of responsible AI. Enterprises have become more customer sensitive and conscious of their AI adoption practices and are looking to ensure inclusive, fair, and bias-free adoption of AI. Hence, the demand for explainable and responsible adoption of AI is becoming important not just across regulated industries but across a wider set of industries. This is being further accelerated by the plethora of government regulations that are already in place or are expected to come in soon that will impose heavy penalties on non-compliant entities.

As this wave of AI adoption continues to mount, enterprises will increasingly seek third-party support to help them plug in capability gaps, manage complexities, and mitigate challenges pertaining to data management, talent crunch, and responsible and compliant adoption of AI. Hence, the role of IT service providers will become extremely crucial to help enterprises adopt and scale AI in a responsible and sustainable fashion.

In this research, we present an assessment and detailed profiles of 20 IT service providers featured on the [Artificial Intelligence \(AI\) Services PEAK Matrix® Assessment 2022](#). Each service provider profile provides a comprehensive picture of its service focus, key Intellectual Property (IP) / solutions, domain investments, and case studies. The assessment is based on Everest Group's annual RFI process for 2021, interactions with leading IT services providers, client reference checks, and an ongoing analysis of the digital services market.

The full report includes the profiles of the following 20 leading AI service providers featured on the AI Services PEAK Matrix:

- **Leaders:** Accenture, Capgemini, Cognizant, HCL Technologies, TCS, and Wipro
- **Major Contenders:** Atos, DXC Technology, Genpact, IBM, Infosys, Mindtree, Mphasis, NTT DATA, Sopra Steria, Tech Mahindra, Virtusa, and Zensar
- **Aspirants:** Happiest Minds and Stefanini

Scope of this report



Geography
Global



Service providers
20 leading AI service providers



Services
Artificial Intelligence services

AI Services PEAK Matrix® characteristics

Leaders:

Accenture, Capgemini, Cognizant, HCL Technologies, TCS, and Wipro

- Leaders are taking a holistic approach to AI by supporting responsible AI adoption that encompasses explainability, fairness, bias assessment, and regulatory compliances, among other parameters, by developing their own IP in terms of tools and frameworks to ensure responsible adoption of AI
- Leaders are leading the mandate for the confluence of sustainability and artificial intelligence. They are leveraging AI to activate sustainable operations within enterprises, and a few are also investing toward enabling “green AI”
- Leaders are taking a verticalized approach to the market by developing IP and offerings catering to a select group of high-growth industries for AI
- They are looking at broadening the AI horizon by working toward emerging concepts within AI such as federated learning, multi-party computing, and frugal AI
- Leaders have doubled down on partnerships to increase their market share for AI. This does not only mean strong partnerships with hyperscalers but with niche vendors in the market as well

Major Contenders:

Atos, DXC Technology, Genpact, IBM, Infosys, Mindtree, Mphasis, NTT DATA, Sopra Steria, Tech Mahindra, Virtusa, and Zensar

- Major Contenders have built meaningful capabilities to deliver AI services; however, their service portfolios are not as balanced and comprehensive as those of Leaders (either in terms of coverage across AI service segments, industries, geographies, or all)
- They are incorporating elements of explainability and bias assessment within their AI portfolios and offerings by leveraging partnerships and third-party solutions
- Major Contenders are also catching up to the train of verticalization and creating a niche for themselves by developing specialization across a chosen vertical and going deep within it
- They are investing in specific emerging concepts within AI, such as edge AI and frugal, with the application of active and transfer learning mechanisms. They need to amplify proof points showcasing their capabilities to help clients operationalize these emerging AI concepts

Aspirants:

Happiest Minds and Stefanini

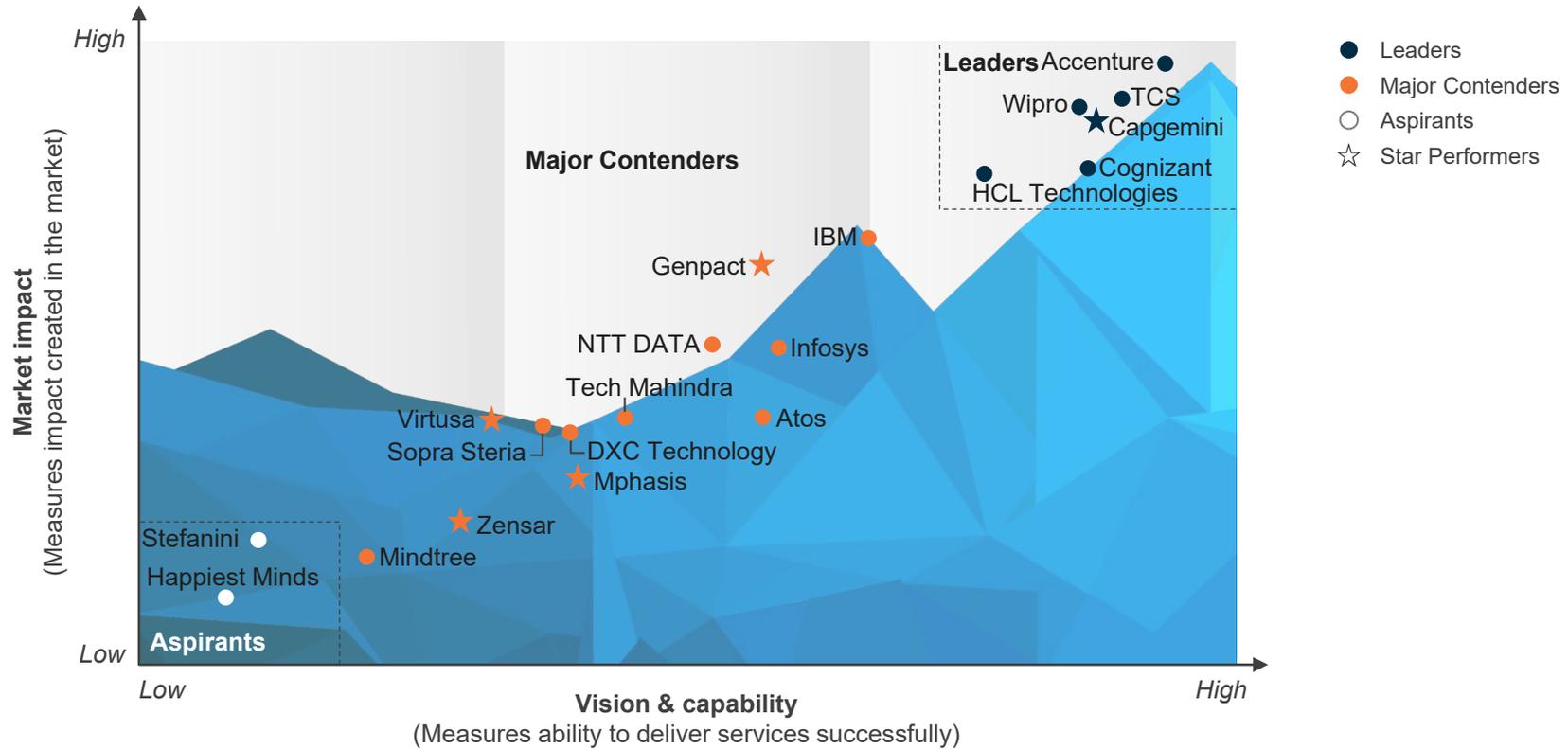
- Aspirants have created a niche for themselves by developing specialization in one particular domain of AI such as conversational AI or computer vision and championing it
- Following the Leaders and the demand from the market, Aspirants have started making investments to include explainability in their portfolios

Everest Group PEAK Matrix®

Artificial Intelligence (AI) Services PEAK Matrix® Assessment 2022 | Cognizant positioned as a Leader



Everest Group Artificial Intelligence (AI) Services PEAK Matrix® Assessment 2022^{1,2}



1 Assessments for Atos includes partial inputs from the service provider and is based on Everest Group's estimates that leverage its proprietary data assets and service provider public disclosures.
 2 Analysis for DXC Technology, IBM, Infosys, and Tech Mahindra excludes service provider inputs on this particular study and is based on Everest Group's estimates that leverage its proprietary Transaction Intelligence (TI) database, ongoing coverage of the service provider, and public disclosures.

Confidentiality: Everest Group takes its confidentiality pledge very seriously. Any information that is contract-specific will be presented back to the industry only in an aggregated fashion.
 Source: Everest Group (2022)

Cognizant | AI services profile (page 1 of 4)

Everest Group assessment – Leader

Measure of capability:  Low  High

Market impact				Vision & capability				
Market adoption	Portfolio mix	Value delivered	Overall	Vision and strategy	Scope of services	Innovation & investments	Delivery footprint	Overall
								

Strengths

- Cognizant’s AI messaging is centered around scaling of AI and embedding it throughout the organization via the vision and messaging of “scaling chasm” that enables enterprises to go beyond operationalizing basic AI use cases to more complex engagements
- It has taken a proactive approach toward explainability wherein it forms an integral part of the AI engagements it undertakes. It has demonstrated its capabilities via proof points and case studies where explainability was the primary objective
- Enterprise clients have appreciated Cognizant for helping them enable and foster a culture conducive to change management with its focus on AI literacy for client organizations as well
- There is strong focus on delivering scalable AI engagements by taking an industry-oriented route and using its credible portfolio of verticalized AI offerings across the major high-volume verticals within AI

Limitations

- A major proportion of the client base comprises large-scale clients. With the increasing percolation of AI across SMBs, Cognizant needs to create an alternative value proposition to serve this market
- Though Cognizant has rich experience in serving clients in the North American regions, it lags its peers when it comes to capturing the UK and broader European markets
- Cognizant lags its peers in making investments and generating thought leadership in emerging concepts of AI such as federated learning, frugal AI, and green AI
- Enterprise clients have mentioned that there is scope to improve its testing and validation services across AI engagements
- Clients have indicated a need for Cognizant to showcase greater flexibility in commercial constructs

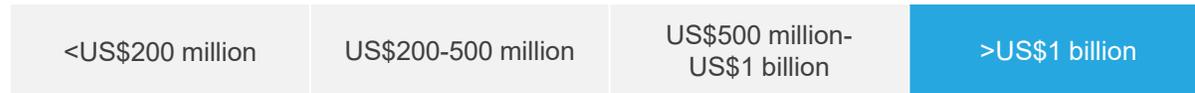
Cognizant | AI services profile (page 2 of 4)

Overview

Vision

Cognizant’s vision is to be the pre-eminent AI partner for clients. It aims to achieve this by blending data & intelligence to drive its clients’ business outcomes and enable AI-/ML-driven organizations and achieve improved business results. Cognizant’s AI services strategy is focused on the intersection of data modernization and intelligence, which enables organizations to build a modern data platform by harnessing the power of AI

Overall AI services revenue (2021)



Adoption by geography

Low (<15%) Medium (15-25%) High (>25%)



Low (<10%) Medium (10-25%) High (>25%)

Adoption by service segment



Adoption by industry



Adoption by buyer size



Cognizant | AI services profile (page 3 of 4)

Case studies

Case study 1

Solution to showcase a visual impression of cosmetic treatments

Client: a healthcare & life sciences company

Business challenge

- The client was looking for a solution to assure patients of positive results from the botox treatments it offers using AI to visualize their transformed future selves after the cosmetic treatment
- The solution was to provide customers with a visual impression of how they would look after the treatment

Solution

- Cognizant built an AI deep learning application that would consume new/prospective patients' latest photographs to generate future, post-treatment facial images
- The AI team used about 18,000 multiracial close-up face images with smiling/neutral expressions of people aged between 18 to 80 years from both genders to train the age prediction model
- The team trained about 1,000 pairs of pre & post-treatment images to develop advanced AI models that would generate synthetic facial images of how the patient would look post the treatment
- Cognizant's patented LEAF ENN framework discovered the best AI architecture for this solution

Impact

- The age prediction model delivered a mean absolute error of 2.19, 44% better than the baseline model
- The client was able to convince prospective patients to undergo treatment

Case study 2

Streamlining model building and deployment using an MLOps solution

Client: a banking and financial services company

Business challenge

- The client had fragmented model development at the LoB level, which resulted in a lack of visibility of the models built and deployed with inconsistent deployment processes
- They were also struggling with multiple development tools, libraries, interpreters, etc.

Solution

- Cognizant proposed an MLOps solution leveraging Amazon Web Services ML stack – powered by AWS SageMaker
- It provided a scalable ML architecture, leveraged to facilitate a shorter model build and deployment life cycle by reducing infrastructural constraints
- A tailored implementation roadmap was set up to build the MLOps pipeline as well as to set up comprehensive process monitoring and governance
- Cognizant built not only new models but also transitioned the existing ML models from Dataiku to AWS SageMaker – AI reengineering services

Impact

- There was a 40% overall effort savings through automated model versioning and deployment
- Reduced time-to-market for production deployment of models, which in turn enhanced the business value delivered

Cognizant | AI services profile (page 4 of 4)

Offerings, partnerships, and investments

Proprietary solutions (representative list)

Solution	Details
LEAF™	An AI platform that uses evolutionary algorithms, deep learning, and distributed computation technology to help clients solve complex business problems with AI
CARL	A solution that helps in corrosion, rust detection, and localization using deep learning models based on images captured by manual processes or robotic appliances
Car price prediction	A virtual assistant with ML-based scientific price prediction for used car sales. It provides accurate pricing based on the existing features of a car
MLOps Accelerator	A solution that offers monitoring and automated retraining capabilities to ensure that the AI models stand the test of time

Partnerships (representative list)

Partner name	Details
Google	A partnership that enables the co-creation of industry-specific strategies and AI offerings that drive business outcomes and continual innovation for future success
AWS	A partnership to leverage the features of AWS SageMaker, a cloud ML platform, which enables product innovation, drives research and discovery, and enhances customer experience
IBM	A partnership to work with a dedicated IBM AI alliances team for building expertise; involved in the IBM AI Betawork program that gives early visibility into the product releases of IBM

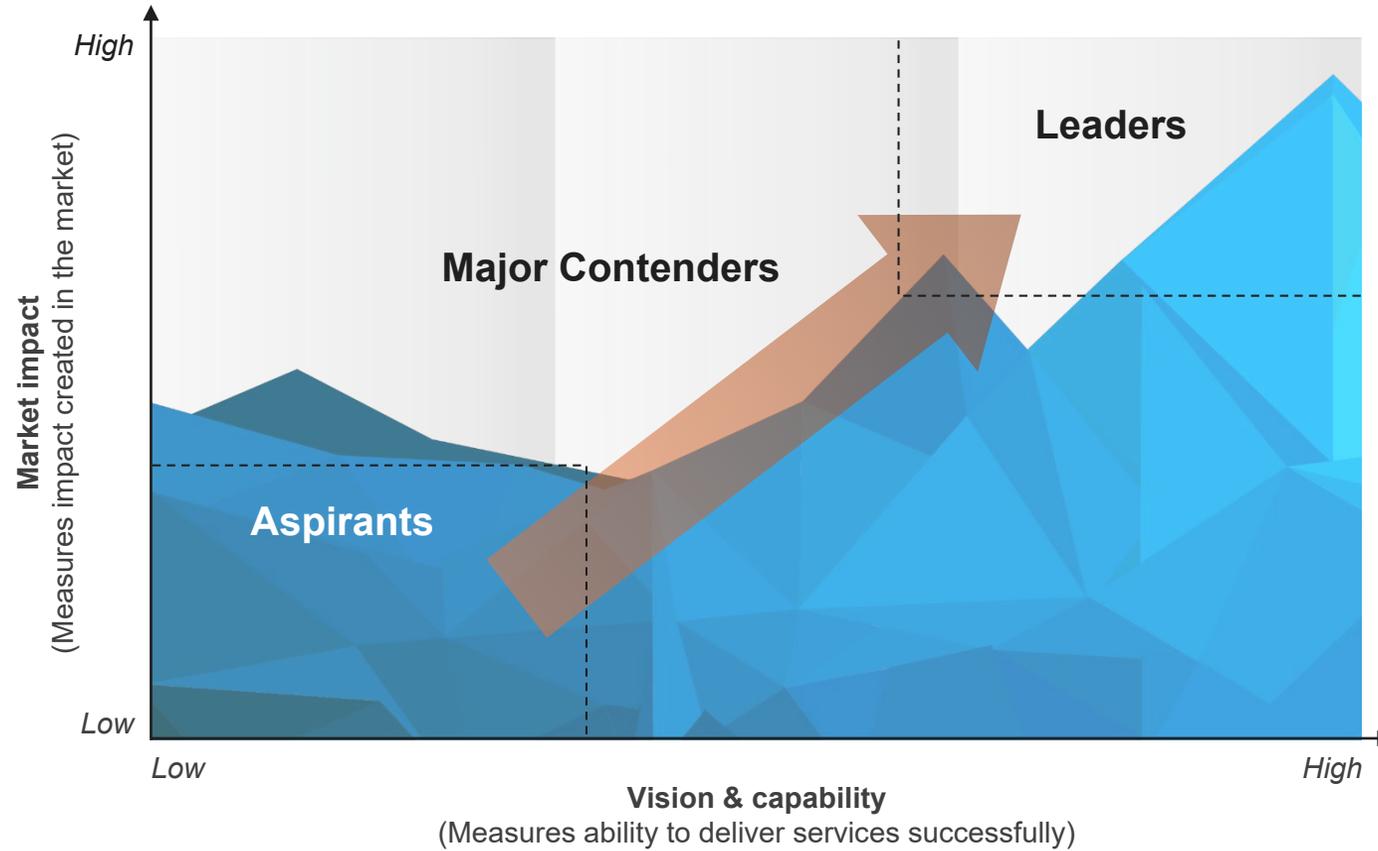
Investments (representative list)

Investment	Details
Servian	Acquisition of Servian, an Australian enterprise transformation consultancy specializing in data analytics and Ai, to significantly expand Cognizant's integrated and end-to-end digital transformation capabilities in Australia and New Zealand
Inawisdom	Acquisition of Inawisdom, a UK-based consultancy specializing in AI to help businesses make better and faster decisions that improve business outcomes
Evolutionary AI Lab	Invested in Evolutionary AI, which would help clients to obtain a better idea of the mitigations that may help the most to achieve specific objectives

Appendix

Everest Group PEAK Matrix® is a proprietary framework for assessment of market impact and vision & capability

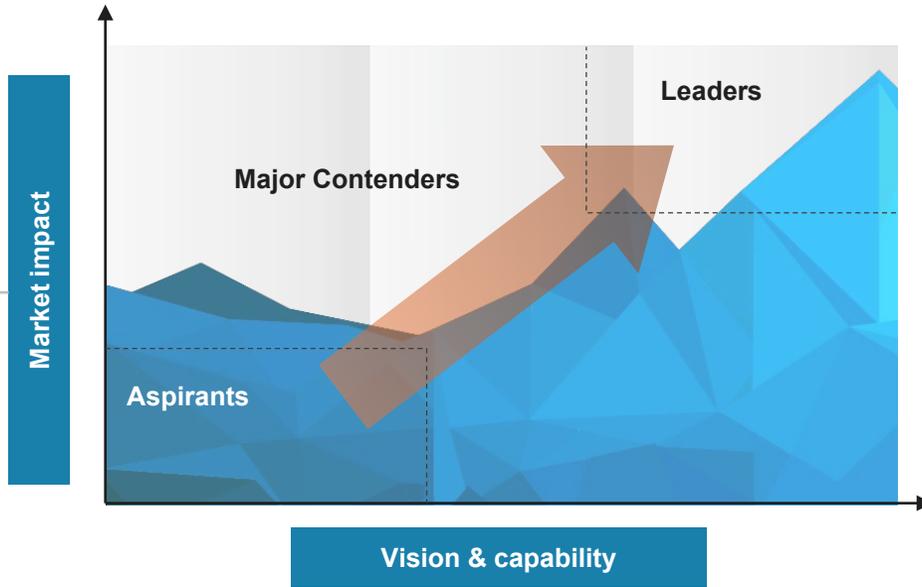
Everest Group PEAK Matrix



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



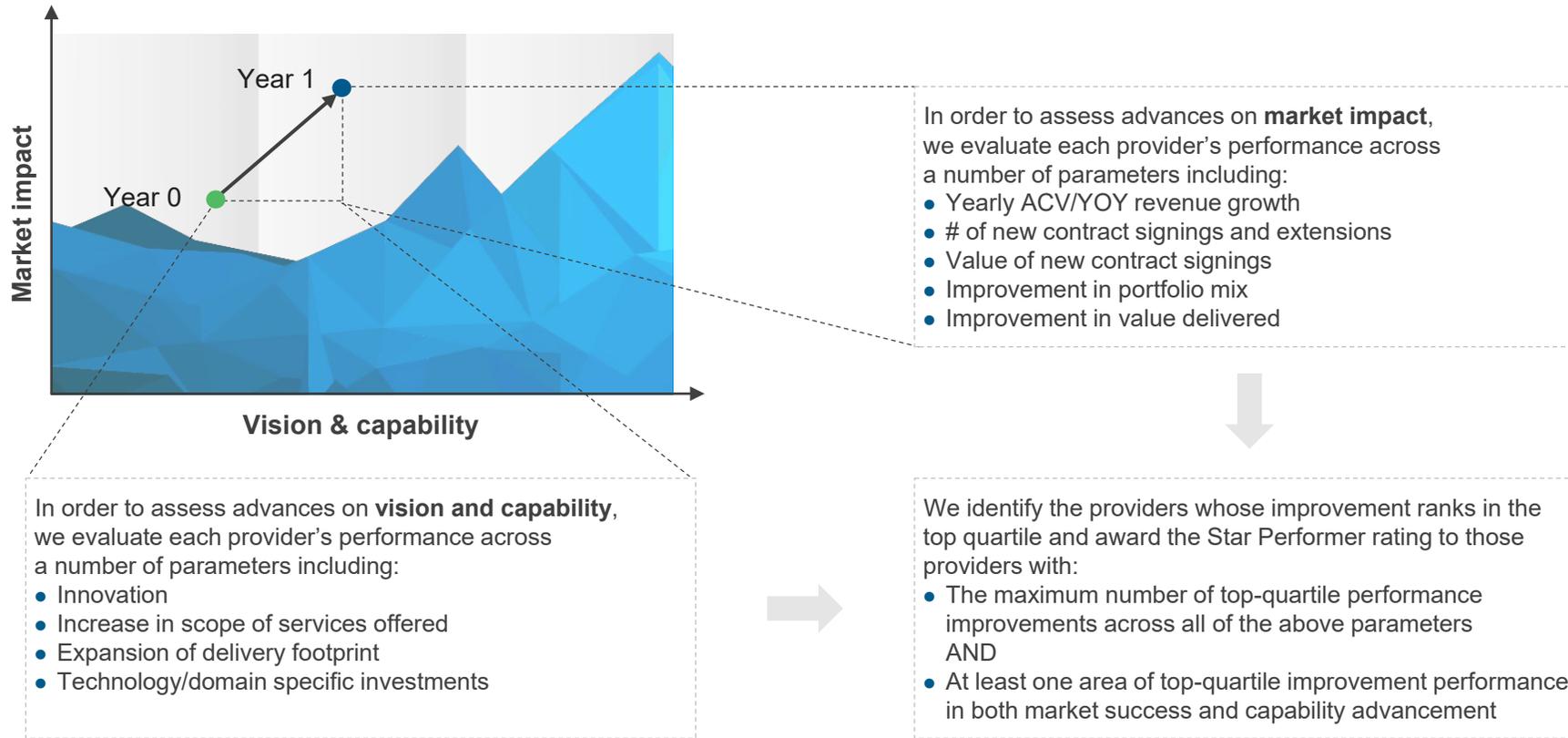
Measures ability to deliver services successfully. This is captured through four subdimensions

- 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

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



The Star Performers title relates to YOY performance for a given vendor 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 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 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 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



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