Ovum Decision Matrix: Selecting an Outsourced Testing Service Provider, 2014–15

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Summary

Catalyst

The emergence of comprehensive outsourced testing of software applications, in which a service provider assumes end-to-end responsibility for centralized testing functions, is accelerating. Yet this approach is not clearly defined and there is a lack of clarity around what terminology to use in this space. Many service providers are merely leveraging the marketing and go-to-market strategy they used for more project-centric approaches, with a strong emphasis on tools and technology. Testing lags behind other mainstream disciplines of outsourcing and is often embedded in infrastructure outsourcing or application management contracts. However, organizations are significantly increasing their efforts to centralize testing services, and are looking for strategic options that include transferring end-to-end responsibilities to service providers.

Ovum view

The market adoption of comprehensive outsourced testing is accelerating, but a lack of discussion on the implications for sourcing underlines two issues. First, the market is still in a nascent state and only a handful of providers are typically selected for comprehensive deals. Second, the suggestion that clients prefer co-sourced approaches, in which the organization works with third parties, is in contrast to the development of all other segments of the IT services market. By not emphasizing the sourcing implications for the business case, governance issues, and the transfer of assets and people, this has left engagement models largely in a project-centric approach to testing, in which the end-to-end responsibility remains with the organization. Nevertheless, the largest deals exceed $100m, indicating both the complexity of such deals and more importantly the highly lucrative addressable market. The problem is that the messaging used for testing capabilities is woefully inadequate. It is mainly stuck in a world of jargon, testing tools, and methodologies, and fails to address the fundamental issues that are holding back the development of outsourced testing.

The leading providers stand out due to their vision to increasingly embed testing into business processes and encourage its evolution into a much more strategic proposition. Conversely, despite high-profile IT failures, organizations remain reluctant to invest in testing services, particularly centralized structures or shared services. Many testing professionals stay within their field, so cross-pollination from other outsourcing disciplines is scarce. This limits the experience in complex sourcing issues and may explain in part organizations' widespread insistence on traditional forms of testing services, particularly manual testing. However, the evolution of IT service delivery models toward much higher degrees of automation requires new and more comprehensive approaches to testing. Thus it is not a question of if, but of when testing services will follow the path of other disciplines of outsourcing.

Key findings

- Enterprises' testing functions have heterogeneous organizational structures, with lines of business functions often trying to exert political power.
- The slow emergence of centralized approaches, coupled with a lack of investment, is a reference point for the lack of maturity of testing functions.

- Organizations (and vendors) should focus as much on sourcing implications as on the technical aspects of testing services.

- Most of the leading providers have very similar overall capabilities. Differentiation comes largely through engagement models and completeness of vision.

- When choosing a provider, enterprises should place importance on the vendor's ability to provide local support, its flexibility in contractual arrangements, and its ability to take on end-to-end responsibility.

- Buyers should seek clarity on methodologies for onboarding, and on how providers intend to develop their portfolio in order to mitigate risks and assure alignment with the strategic goals of the business.

Market and services analysis

The evolving discipline of outsourced testing

Outsourced testing services remains a market segment full of contrasts. Organizations have been slow to view testing as a strategic investment that warrants funding for centralization and standardization akin to that implemented for shared service centers, but testing services is a high-margin business for providers. The marketing of testing services is still fairly technical, reflecting an emphasis on tools rather than managed services or comprehensive outsourcing. This is likely due to a lack of perceived strategic relevance. Arguments around sourcing strategies and implications are scarce, but these issues need to be addressed to both help organizations in their transformational journey and boost demand for comprehensive outsourcing. Nevertheless, comprehensive outsourcing contracts are gaining traction, with providers taking on end-to-end responsibility. The decision-makers for these deals are focusing on business-centric criteria such as business case, risk mitigation, transfer of assets and people, and clarity of roadmap. In other words, the decision-making process is becoming increasingly aligned with that of other disciplines of outsourcing, and as such the implications of the sourcing lifecycle are becoming the critical criteria in the decision-making process.

Service providers need to adapt their go-to-market strategies to address this shift in buying criteria. For comprehensive deals, the emphasis needs to be on the business case, risk mitigation, and the transfer of assets and people. However, much of the market messaging is steeped in technology-led, largely project-oriented work, and while this is sufficient for the majority of testing services, the development of comprehensive outsourcing requires a more succinct go-to-market strategy. The blurry messaging is also due to the heterogeneous ways testing functions are organized, as revealed by the World Quality Report – which in our view is the best primary data on testing. As Figure 1 outlines, 35% of organizations deploy a combination of centralized and decentralized teams, while 27% have begun to centralize their testing function. A further 12% revealed that their testing execution function is managed by an external provider. This indicates that no single logical organizational model acts as a conduit for outsourcing. Rather, we expect testing services to follow a similar evolution to shared services toward more globally centralized models. Conversely, high levels of decentralization will inhibit comprehensive outsourcing.

Figure 1: Structure of testing functions
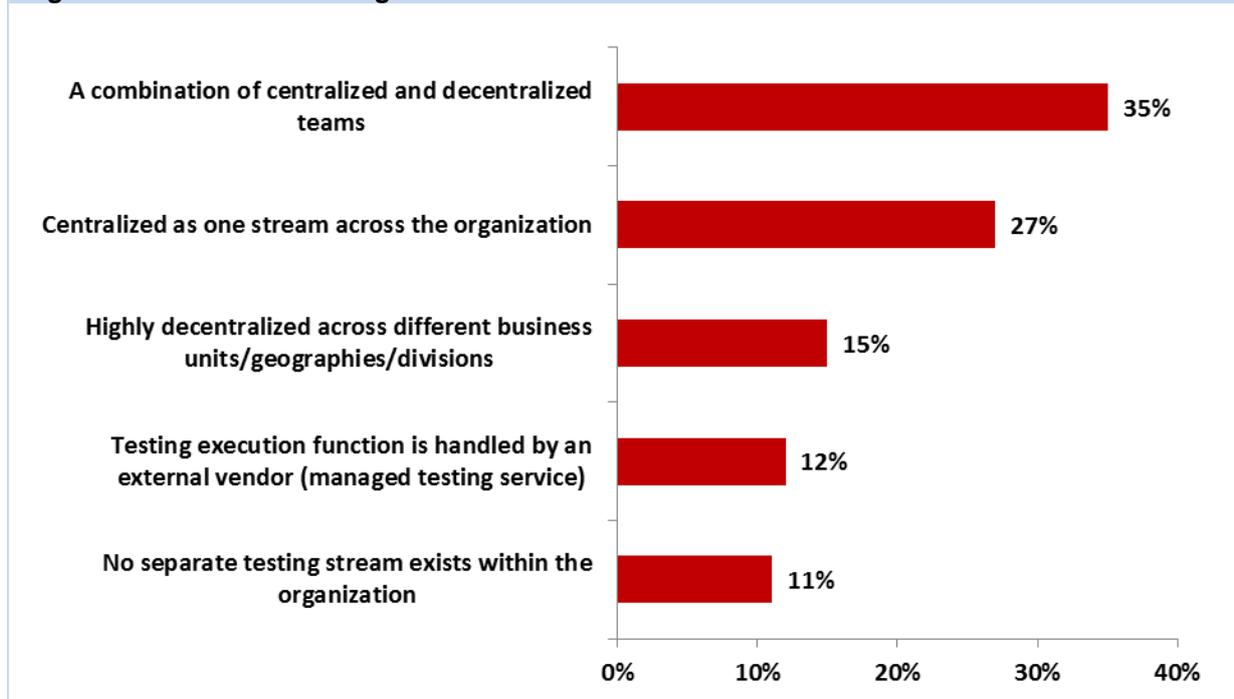
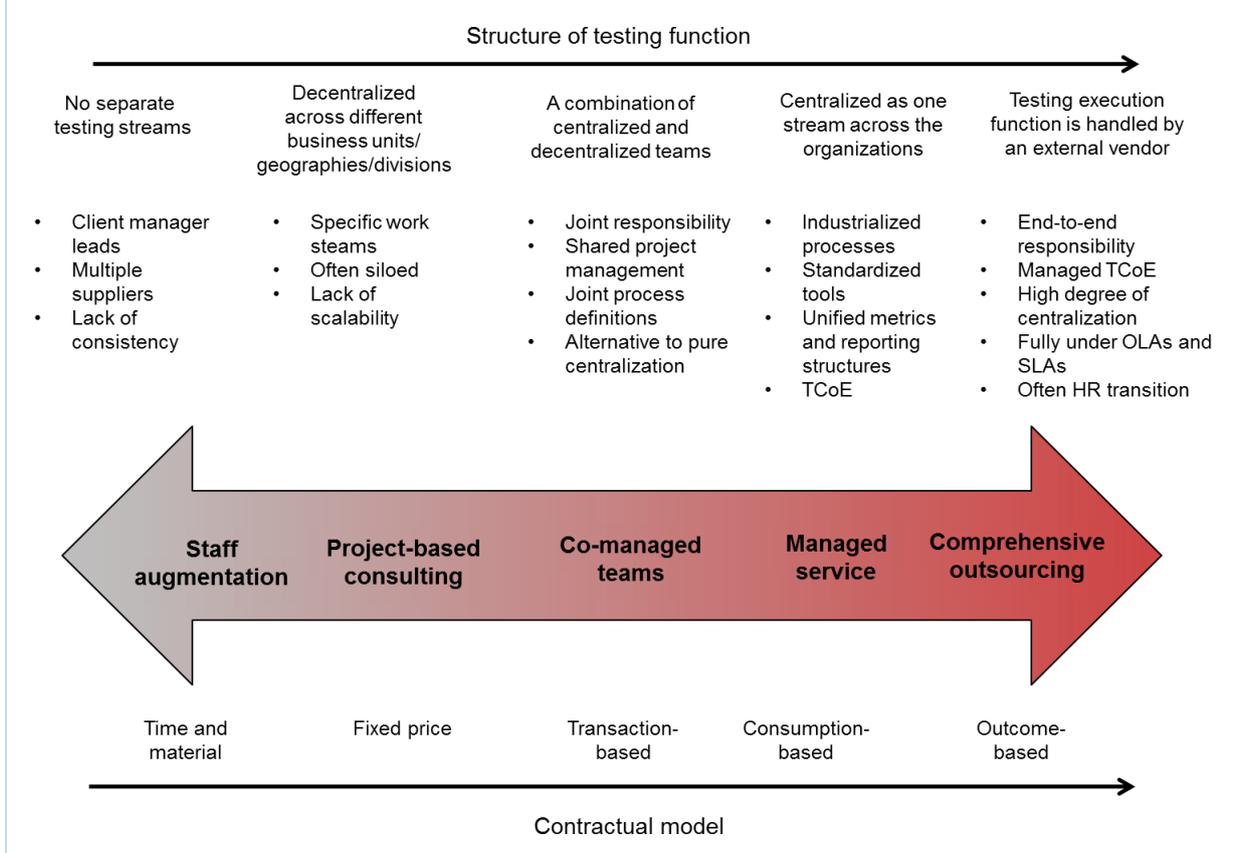Source: Capgemini, World Quality Report 2013

These organizational structures are further complicated by the fact that 19% of organizations' testing functions are co-managed by an external provider and internal resources. This implies a significant degree of fragmentation and no overarching end-to-end responsibility. Against this backdrop of heterogeneous structures, we believe a testing center of excellence (TCoE) is a good proxy for an organization's centralization efforts akin to shared services for other, broader IT services, and we will use it as a key benchmark in our evaluation for comprehensive outsourcing. Testing services are a continuum ranging from project business and staff augmentation to comprehensive outsourcing, but the key is to understand where there is a fundamental shift in go-to-market requirements from technology to sourcing implications.

Linked to this shift toward centralization and outsourcing are notions of testing for business assurance and of embedding testing capabilities into business processes, thereby underlining the increased strategic value of testing services. Another largely aspirational vision is predictive testing that leverages both automation and analytics tools. Similarly, by transforming testing functions to get to higher levels of centralization and automation, providers are emphasizing the different engagement models (including outcome-based pricing and testing-as-a-service (TaaS)) as compared to the broader gamut of testing services. The common denominator for all of these approaches is the use of business-centric metrics, as testing slowly evolves into a business-critical discipline. This report provides insights and guidance on the best practices and capabilities of the leading outsourced testing providers, adding to the currently very limited reference material for the shift in decision criteria for outsourced testing.

The evolution of testing services

Figure 2 depicts the continuum of testing services and the evolution of organizational and contractual models, unraveling the overlapping approaches and blurry marketing strategies related to these services.

Figure 2: Evolution of testing services

Structure of testing function

No separate testing streams	Decentralized across different business units/ geographies/divisions	A combination of centralized and decentralized teams	Centralized as one stream across the organizations	Testing execution function is handled by an external vendor
• Client manager leads • Multiple suppliers • Lack of consistency	• Specific work steams • Often siloed • Lack of scalability	• Joint responsibility • Shared project management • Joint process definitions • Alternative to pure centralization	• Industrialized processes • Standardized tools • Unified metrics and reporting structures • TCoE	• End-to-end responsibility • Managed TCoE • High degree of centralization • Fully under OLAs and SLAs • Often HR transition

Staff augmentation	Project-based consulting	Co-managed teams	Managed service	Comprehensive outsourcing
Time and material	Fixed price	Transaction-based	Consumption-based	Outcome-based

Contractual model

Source: Ovum

The marketing and go-to-market strategies of most providers stop at managed services, with many providers using the term for both lower-value discrete process streams and the comprehensive outsourcing of complete testing functions. Thus the marketing for managed services is largely inadequate for the requirements of outsourcing. Testing services should be perceived within a continuum, from staff augmentation to managed services to outsourcing of specific testing functions or testing for specific products. The crucial point is that the decision criteria for project-centric work and outsourcing are fundamentally different, with the criteria for outsourcing shifting toward the business case, the transfer of assets and people, and risk mitigation.

The World Quality Report provides more insights into organizations' efforts and attitudes on centralization. Of respondents, 26% indicated that their TCoE is fully operational, while 15% plan to use a third-party company with a TCoE capability. Probably the most striking data point is that less than 39% of respondents measure the IT value of quality assurance. The transition to outsourcing is not feasible without proper measurement. Therefore, transformational consulting services need to provide proper means for clients to measure their testing capabilities, whether in-house or outsourced.

The difference between project-centric work and outsourcing is also apparent in discussions on methodology. The best example is the depiction of agile methodologies. While agile has almost become a standard in project-centric work, executives at CGI rightly point out that agile has to be adapted case by case in an outsourced environment, depending on the maturity of the client. One of the challenges of working in an agile way is the close cycle between developers and testers within agile iterations.

Provider solution criteria

Inclusion criteria

We contacted the top 15 service providers for testing services globally – based on our discussions with stakeholders, which revealed that only a select group of providers are typically invited for RFPs. The main criterion for inclusion is the comprehensive outsourcing of centralized testing functions. This should take a similar approach to shared services or the mainstream disciplines of outsourcing. The supplier must have end-to-end responsibility for the testing activities, and the service must be based on a long-term contract managed through SLAs and KPIs.

The criteria for including a vendor solution in this ODM are as follows:

- The vendor must be recognized as a tier-1 provider of BPM solutions for enterprises.
- The solution operates in at least two major geographies (from Europe, North America, and Asia-Pacific).
- It generates revenues of at least $100m from outsourced testing.
- The solution serves at least three of the following verticals: energy and utilities; financial services; healthcare; life sciences; manufacturing; media and entertainment; professional services; public sector; retail, wholesale, and distribution; telecoms; and travel, transportation, and logistics.
- Ovum has experienced enterprise client demand for information relating to the particular offering. Providers were only invited to satisfy the first four criteria if this one was met. Where client demand has been exceptional, we waived the first four criteria.

Exclusion criteria

For this evaluation we do not look at projects around staff augmentation or testing within application management or ITO contracts. These have different engagement models so require different marketing strategies. This is not to suggest that these segments necessarily have a smaller addressable market than comprehensive outsourcing deals.

The criteria that prevented a solution from being included in this ODM are as follows:

- The provider operates in only one or two verticals.
- The provider operates in only one geography within Ovum's enterprise client base (from Europe, North America, and Asia-Pacific).
- Ovum has experienced little or no enterprise client demand for information relating to the solution.

Methodology

Offering assessment

In this assessment dimension, Ovum assesses the capabilities that differentiate the leading providers in the marketplace. The criteria groups we identified are as follows:

- **Offerings:** Assesses the breadth and granularity of the offering. This assessment is strongly aligned with the offering's overall testing services capabilities, so we have taken domain and specialized services into consideration.
- **Differentiators:** Rates how providers aim to convey differentiation, giving buyers reference points to include in RFIs.
- **Methodologies:** Assesses how providers integrate methodologies such as agile, DevOps, and others within their outsourcing arrangements.
- **Frameworks:** Analyzes testing frameworks as aset of assumptions, concepts, and practices that support software testing in an outsourced environment.
- **Tools:** Rates how providers form partnerships for tools that execute and automate testing, and how they provide information to manage this.
- **Accelerators:** Assesses the tools and templates that allow the provider to adapt to domain-specific solutions or third-party applications.
- **Maturity:** Assesses the maturity of the offering to balance the generic capabilities that are common among the leading providers.

Execution assessment

In this dimension, Ovum reviews the capabilities of the solution in the following key areas:

- **Vision:** The vision of the provider is a strong reference point for clients and prospects, giving them a sense of the journey throughout the outsourcing contract. The discipline of comprehensive outsourcing is still emerging, so this should be read in terms of strategic intent.
- **Portfolio roadmap:** The roadmap is a strong reference point for how the provider will evolve and innovate during the contractual relationship.
- **Go-to-market strategy:** Assesses how providers are positioning outsourced testing services and selling their engagements. We have placed a particular emphasis on dedicated testing sales strategies.
- **Business/engagement models:** Assesses the focus of the relationship, ranging from a pure cost focus to more innovative risk and reward considerations.
- **Contractual models:** Determines the maturity and innovation of contractual approaches, ranging from time and materials to a service catalog. This is complemented by an assessment of the maturity of the metrics used in these arrangements.
- **Delivery model:** Assesses providers' global delivery capabilities and localization efforts.
- **Number of TCoE/test factories managed:** Assesses the number of TCoEs being managed on behalf of customers. This is a good indicator of market penetration and maturity.

- **Number of career testers:** Similar to the number of TCoEs managed, the number of career testers reflects the provider's market penetration. These two measures help to balance more subjective evaluations.

Market impact

This dimension assesses the global market impact of a provider. Market impact is measured across the following five categories:

- **Market visibility:** The level of proactive communication around the topic. This is a measure of the likelihood of the provider to be included in a RFI process. We include communication around managed services, but have given additional points for specific discussions on comprehensive outsourcing.

- **Revenue:** Each solution's global business process management revenues are calculated as a percentage of the market leader's.

- **Revenue growth:** Each provider's revenue growth estimate for the next 12 months is calculated as a percentage of the growth rate of the fastest-growing solution in the market.

- **Geographical penetration:** Each provider's revenues in four regions: the Americas, Europe, Asia-Pacific, and Rest of World. We have placed particular emphasis on geographical traction outside the key markets in the US and the UK. We score these revenues based on the importance and potential of each region.

- **Vertical penetration:** Determines each provider's revenues in key verticals. We have placed particular emphasis on traction outside the major verticals of banking and high-tech. We have given these revenues a score based on what we determine as strong revenues in each of these verticals.

Ovum ratings

- **Market leader**: This category represents the leading solutions that we believe are worthy of a place on most testing selection shortlists. The vendor has established a commanding market position with a product that is widely accepted as best-of-breed.

- **Market challenger**: The providers in this category have good market positions and are selling and marketing their offerings well. Most of these providers are on the journey toward comprehensive outsourced offerings and are investing strongly in their capabilities. These offerings offer competitive capabilities and sound outsourcing propositions, and should be considered as part of the selection process.

- **Market follower**: Providers in this category are typically aimed at meeting the requirements of a particular kind of customer, often relating to a specific vertical or offering. With a strong heritage in project-centric services, these providers should be explored as part of a multi-vendor environment.
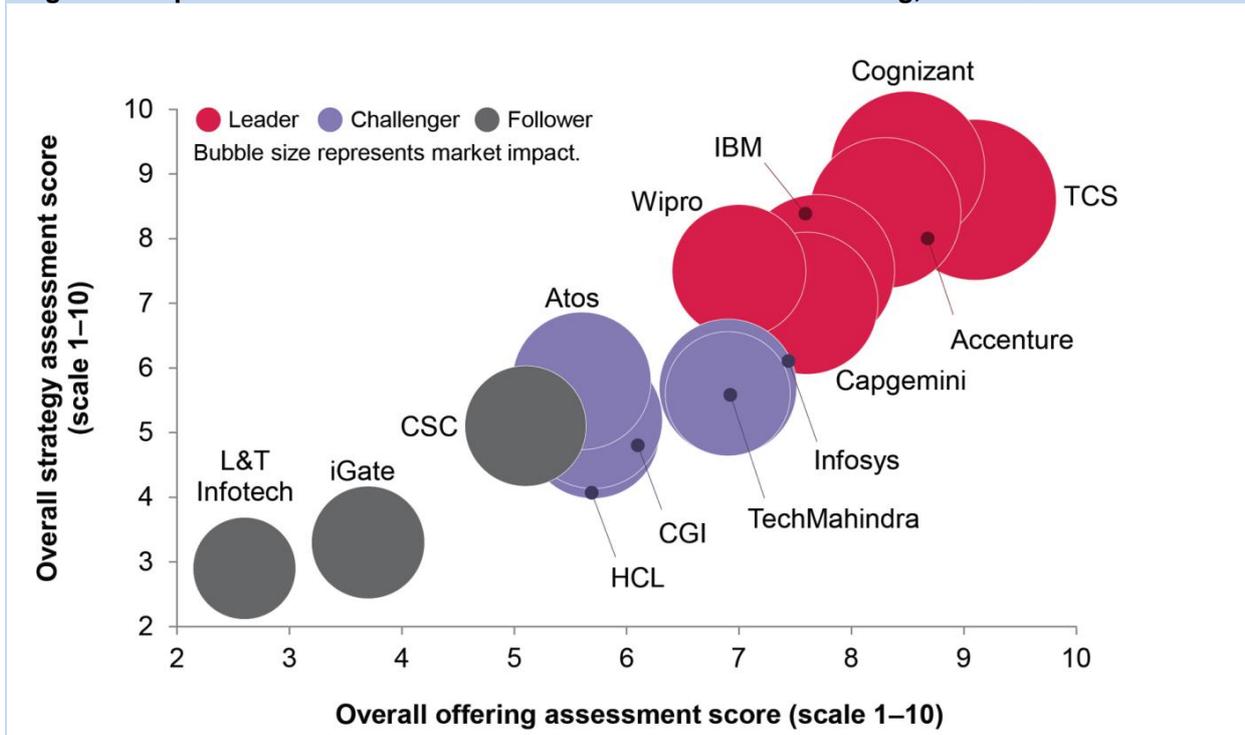
Market and product analysis

Ovum Decision Matrix: outsourced testing, 2014–15

Figure 3: Ovum Decision Matrix: outsourced testing, 2014–2015
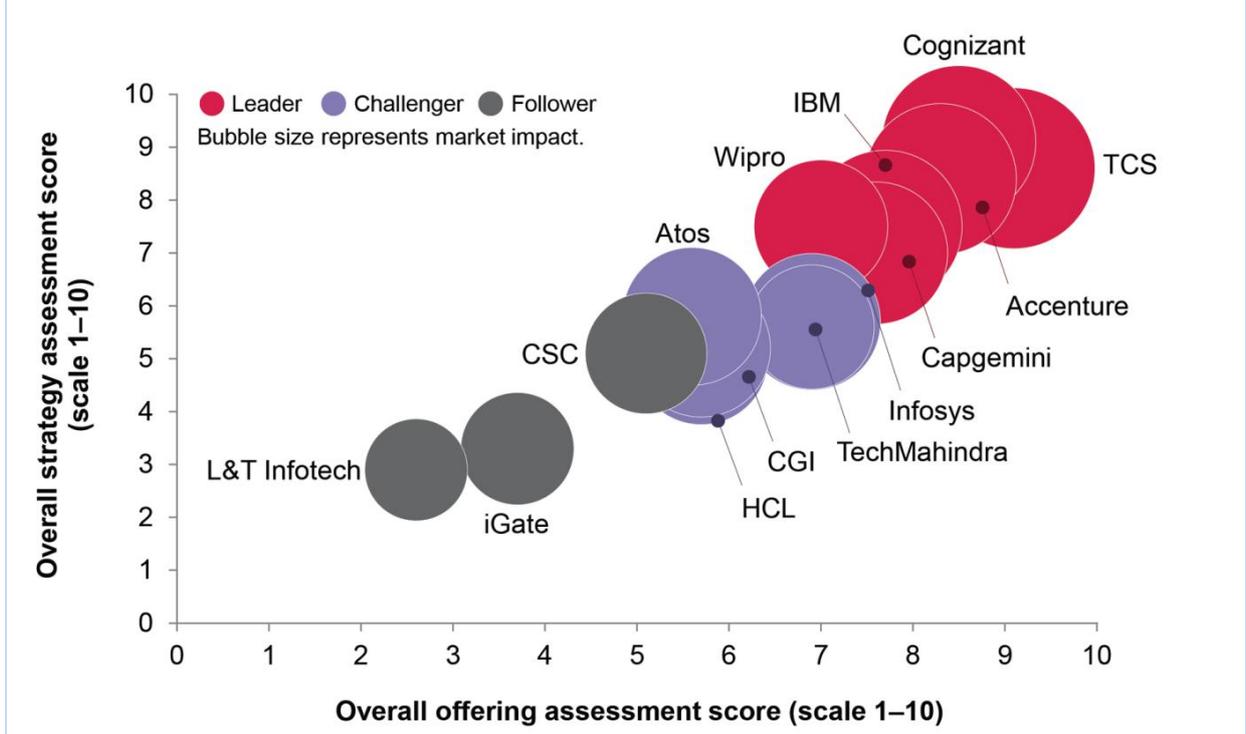
Source: Ovum

Figure 4: Expanded view of Ovum Decision Matrix: outsourced testing, 2014–2015

Source: Ovum

Table 1: Ovum Decision Matrix: outsourced testing, 2014–2015

Market leaders	Market challengers	Market followers
TCS	Atos	CSC
Cognizant	Infosys	iGate
Accenture	Tech Mahindra	L&T Infotech
IBM	CGI	
Capgemini	HCL	
Wipro		

Source: Ovum

Market leaders: TCS, Cognizant, Accenture, IBM, Capgemini, and Wipro

The market leaders stand out for three reasons: First, they are selected for comprehensive outsourcing deals on a regular basis. Second, they depict a strong vision of the evolution of their outsourced offerings, enabling organizations to gauge the development of their testing functions should they chose to outsource. Third, they manage a significant amount of TCoEs on behalf of their customers, which is a good proxy for their outsourcing capabilities. All of these providers should be considered for global requirements as they have a demonstrated ability to successfully deliver global contracts.

In terms of offerings and market impact, TCS was the strongest performer. Its call-out characteristics were the breadth of its offerings and the feedback from its customer engagements. In terms of

execution, our discussions with Cognizant stood out due to its succinct referencing of the implications of end-to-end responsibilities and its convincing articulation of the journey toward embedding testing into business processes. Accenture added a strong narrative on evolving toward predictive testing underpinned by expansive analytics capabilities, and the provider has built out strong industrialized vertical capabilities. IBM demonstrated solid traction in complex global deals, including its strong capabilities in the Japanese market. Capgemini deserves credit for educating the market on comprehensive outsourcing. Wipro demonstrated strong penetration in the banking sector with significant contracts.

Market challengers: Infosys, Atos, Tech Mahindra, CGI, and HCL

The market challengers have a solid base of successful project-centric and managed services contracts, and have all demonstrated that they are on their journey toward more comprehensive contracts by depicting a sound vision and a detailed portfolio roadmap. The main difference between these providers and the market leaders is their level of maturity and the amount of TCoEs they manage on behalf of clients. For specific requirements, especially with a vertical or regional emphasis, these providers should be considered for selection.

Atos demonstrated a convincing roadmap for how it intends to close the gap on the market leaders. In many respects, it is emulating its peer Capgemini, from whom it has hired key executives. Atos demonstrated strong capabilities in Europe and solid vertical traction, predominantly in manufacturing. Infosys referenced strong traction in North America and in utilities and the public sector. Tech Mahindra is among the leaders in telecoms, and the provider is expanding its skill sets in other verticals. Both CGI and HCL demonstrated a convincing vision and referenced their blueprint to catch up with the leading providers.

Market followers: CSC, iGate, and L&T Infotech

The market followers demonstrated a solid base of project-centric and managed services contracts. Typically, they have a regional or vertical focus and are still building out their capabilities for comprehensive contracts. Within their vertical focus, they should be considered as part of multi-vendor environments with a specific remit.

CSC has strong traction in the public sector and healthcare, and is aiming to build out its capabilities for more comprehensive deals. iGate and L&T Infotech have solid traction in North America and are seeking to move up the value chain.

Provider analysis

TCS: Ovum recommendation – leader

Figure 5: TCS radar diagrams
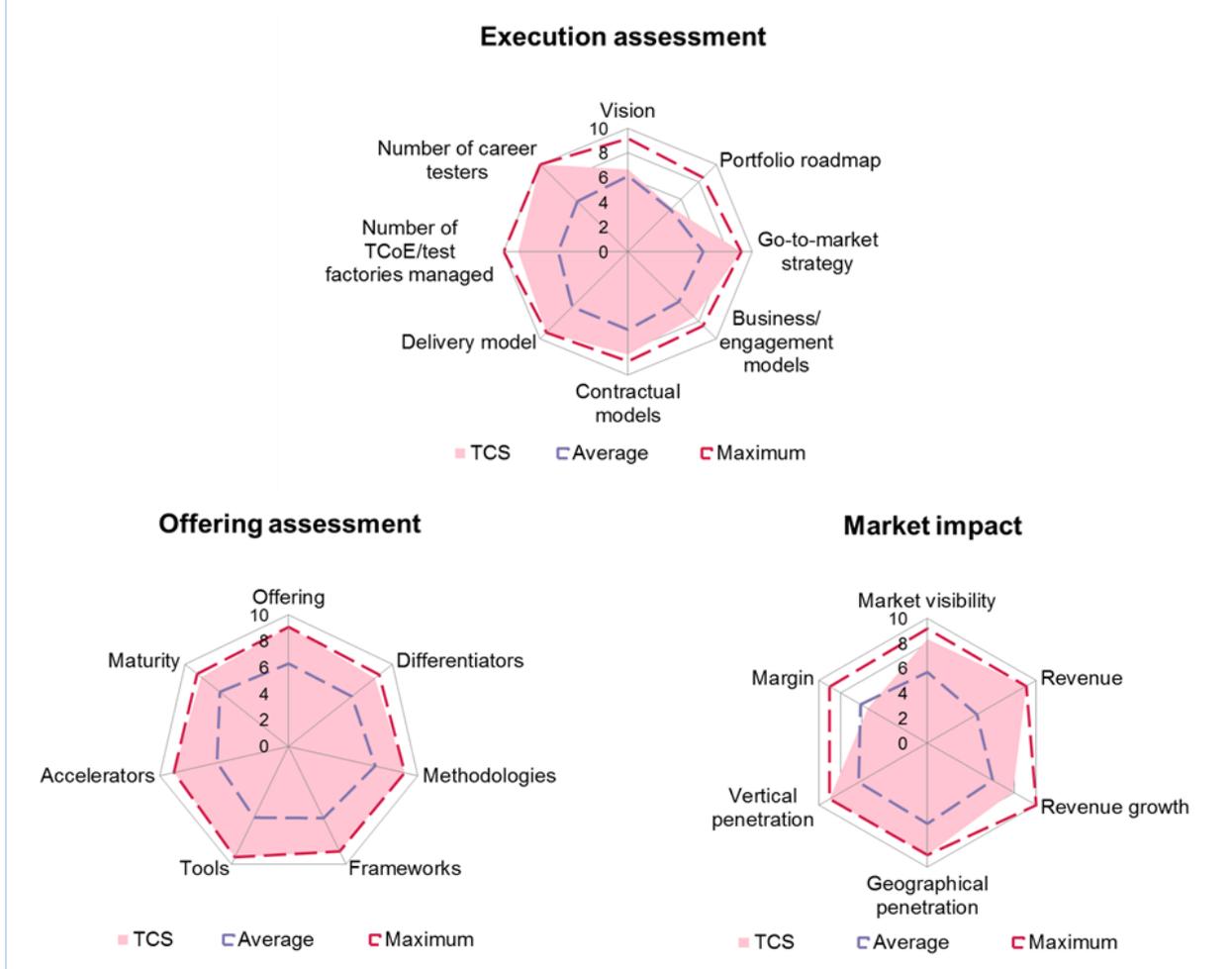
Source: Ovum

TCS stands out due to the breadth of its offerings and the maturity of its sales approach. TCS's Assurance Services Unit is increasingly extending its vertical capabilities, enabling the provider to use testing services to open doors to new clients. TCS defines business assurance services not just as an evolution of quality assurance, but also as the maturation of managed testing services to directly affect customers' business outcomes, which is similar to Ovum's notion of comprehensive outsourcing. The Consulting and Advisory Group within TCS's Assurance Service Unit aids clients on their sourcing journey by underpinning test process assessments with industry-specific benchmarks. The strength of TCS's approach to outsourcing comes out strongest in its client testimonials. Beyond leading global financial services organizations, TalkTalk and AGL are among its largest clients. TCS should be considered for requirements in banking, retail, and life sciences and healthcare.

TCS has a broad set of differentiating IP, including TCS Integrated Assessment Framework for Assurance (TIARA), a proprietary test process maturity assessment framework that enables comprehensive assessments of test process maturity. These assessments are based on a broad set

of benchmarks that have been customized for specific verticals, such as banking, insurance, and life sciences, as well for agile methodologies and digital services. TCS also offers BFS Harmony, a proprietary suite of reusable test scenarios for various industries, particularly the banking sector, as well as enterprise solutions such as SAP, Oracle, and Microsoft Dynamics. TCS has invested in labs such as TCS HP Assurance Innovation Hub (jointly with HP) to build next-generation solutions leveraging HP Software's platforms and Customer Experience Center to focus on solutions for digital transformation. It also has the MasterCraft integration platform, which enhances the test automation lifecycle with collaboration tools.

Appendix

Further reading

Outsourced Software Testing Is Coming of Age, IT019-003107 (October 2012)

Services Guide: Outsourced Testing, IT019-002946 (November 2011)

Agile and Lean Business Transformation, IT016-001470 (February 2013)

Service Virtualization: Accelerating Testing, IT0022-000098 (May 2014)

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Ovum Consulting

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