

Ovum Decision Matrix: Selecting a Core Banking System in the European Market, 2016–17

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Summary

Catalyst

Banks are under increased pressure to update their core banking systems due to changes in their business environment. With the cost of keeping up with technology evolution growing, many banks are turning to external vendors when considering systems replacement, including larger banks.

The core banking marketplace has changed significantly over the last few years. The vendor ecosystem has seen significant consolidation, with a strong push by global/multiregional vendors in Europe and attempts by a number of country-focused vendors to expand into new markets. These developments have also resulted in a considerable expansion in the number of potential vendors that the European banks can consider.

This Ovum Decision Matrix (ODM) provides a reference guide for core banking software providers by profiling the leading vendors, their platforms, and their positioning.

Ovum view

Ovum expects the core replacement and transformation market to grow in the near future. The changes in the industry's environment are making it increasingly difficult for banks to keep on going with additional tweaks to their core. Banks in Europe are facing a tough environment of growing competition, increasing regulation, and changing customer behavior. All this is forcing many banks to consider core replacement. The pace of change of technology means that most banks will need to turn to the vendor marketplace for the core system rather than construct the banking solutions in-house. In addition, the recent developments in modularization that enable progressive modernization have allowed software vendors to also target higher-tier banks.

Although technology cycles are accelerating, selecting a core banking system is still a choice that will affect a bank for the following 10 to 15 years. Because of this, banks need to do so carefully, considering their needs and the fit of the software solution to their overall architecture as well as the strength of the core banking system's technology architecture, its flexibility to respond to changing needs, and the strength of the solution's business functionality. Also important is the software vendor's capability to carry out the transformation project successfully, delivering both IT and business value.

Most of the vendors assessed in this ODM are able to service the needs of the sector, and the top-positioned ones are able to meet the full needs of the vast majority of institutions.

Key findings

- Increased customer expectations are driving the need to modernize core systems.
- The shift toward enterprise-level componentization allows banks to modernize progressively.
- Smaller banks will benefit from advances in process models and move toward SaaS deployment.
- Execution capabilities differentiate leading vendors' product banking offerings.

Market context

Increased customer expectations are driving the need to modernize core systems

The growing need to cater to the desires of the customer is influencing core banking investment decisions: providing enhanced customer service is a top driver for core banking IT investment for 57% of the 150 respondents based in Western, Central, and Eastern Europe surveyed in Ovum's ICT Enterprise Insights survey for 2016. Some of the most important changes that the retail banking industry has experienced over the last few years include increased competition in the marketplace and the greater importance of customer-driven demand. As a consequence, banks have to better cater to the desires of customers, such as demand for quick turnaround of applications. Unfortunately for banks, customers no longer benchmark their performance against other banks, but expect service delivery that is on a par with the big online retailers. It is becoming increasingly difficult to deliver the kind of service expected with old core banking systems, and to survive in this different environment the modernization of core banking systems is becoming crucial.

The shift toward enterprise-level componentization allows banks to modernize progressively

Purchasing a packaged software solution has become a valid option for larger banks as well as smaller ones. The business functionality of the packaged software offerings from the leading vendors covered in this ODM is often very mature, and recent developments in componentization enable institutions to take a progressive approach to core replacement. Modernizing a bank's digital systems with a packaged solution from a software vendor has been an option for smaller banks for decades, but for larger banks this has not been an alternative until recently; during the last decade, a number of banks in developing markets have moved on to packaged offerings that operate at a large scale in terms of customer numbers, such as Bank of China using TCS BaNCS to service 380 million accounts.

A number of software vendors offer core banking software that has modules truly capable of functioning on a stand-alone basis. This makes packaged solutions a viable alternative for tier-1 banks' core modernization, because these stand-alone modules allow business value to be extracted far sooner. Tier-1 banks typically use separate systems for the main product areas, and although most modern vendors have created modular application sets that allow banks to deploy different functional modules over time (e.g., lending or deposits), such modules are largely constructed on the basis that banks will be using the vendor's underlying platform infrastructure services and architecture, and are designed to work across the vendor's platform rather than on a stand-alone basis across a diverse and non-vendor-controlled external application ecosystem. While this can generally be worked around to create a transition path for mid-tier banks, it becomes much more problematic for tier-1 institutions. However, truly stand-alone modules have diminished these concerns and enterprise-level componentization will be the next main technology shift in software vendors' architectures.

Smaller banks benefit from advances in process models and move toward SaaS deployment

Deployment of banking software is costly and can be very time-consuming. For this reason most software vendors have been developing their offerings with standardized process models that accelerate deployment. A "bank in a box" offering that is targeted at direct banks and smaller start-up banks offers institutions the opportunity to leverage industry best practice and get faster and lower-cost deployment. Combined with the emerging software-as-a-service (SaaS) deployment option, this has potential to offer a very cost-effective solution for small banks.

However, although most software vendors have a cloud-related plan, this is in many cases not a very well-defined roadmap, reflecting the fact that the cloud market is still nascent. The plans that software vendors have for cloud markets mainly relate to partners; Microsoft Azure has made the most deals in this area.

Execution capabilities differentiate leading vendors' banking product offerings

The general retail banking product offering tends to be strong across banking software vendors. Over the last decade, many software vendors have developed universal banking offerings. However, execution capability is the key differentiator in this area: to deliver its product range, the vendor needs technology architecture, business functionality, and experience in the local market to deal with product requirements, processes, and compliance. Deployments in many markets improve the software vendor's product delivery capabilities.

Vendor solution selection

Inclusion criteria

This ODM provides a quantitative and qualitative representation of Ovum's view of the competitive core banking systems market in Europe.

The vendors selected for the core banking ODM are active providers in the market that seek out new deals. They have the ability to service a significant number of European markets, provide full retail banking product support, and meet the needs of a broad range of banks. While vendor evaluation includes consideration of the broad banking platform, for the purposes of inclusion, all platforms had to explicitly support core retail banking product processing and record keeping.

The list of vendors is not exhaustive, but Ovum believes it represents the main vendors worthy of consideration for the majority of European banks, and offers an in-depth analysis of the European core banking market. Within any market there may be local players or niche software providers that are not included in the Decision Matrix. It is also worth noting that many of the core banking vendors included have a number of other products; the products evaluated in this ODM are those targeting the European market that are most fitting to the needs of European banks. The 13 vendors assessed, and their products, are listed in Table 1.

Table 1: Vendors and products included in the Ovum Decision Matrix for European core banking system selection

Vendor	Core banking platform
Avaloq	Avaloq Banking Suite
ERI	Olympic Banking System
FIS	FIS Profile
Fiserv	Signature Bank Platform
Infosys/EdgeVerve	Infosys Finacle
Intellect Design Arena	Intellect Digital Core
Misys	Misys FusionBanking Essence
Oracle	Oracle Flexcube Universal Banking
SAB	SAB Advanced Technology
SAP	SAP Transactional Banking
Sopra Banking Software	Sopra Banking Platform
Tata Consultancy Services (TCS)	TCS BaNCS
Temenos	T24

Source: Ovum

Overall assessment

In this Decision Matrix Ovum provides a summary of each vendor's core banking platform capabilities based on a quantitative assessment of its market impact in the core banking market in Europe and the quality and breadth of functionality provided by the platform and underlying technology. Alongside this, Ovum provides an assessment of each vendor's execution capabilities. The evaluation of each vendor's capabilities and relative positioning in the market relates to the particular product evaluated rather than to the whole company and its full offering.

The companies looking for a core systems platform are encouraged to consider their own goals as the top priority when selecting a vendor. The vendors profiled here represent some of the best in the market, but not all of the market. Furthermore, the fit of the core systems platform is dependent on its ability to fit the bank's overall strategy. A decision to invest in a particular platform should be based on a broad array of factors, including the bank's overall strategy and the platform's fit with the rest of the technology within the firm.

Methodology

The assessment is based on the following methodology:

Based on Ovum's initial assessment and knowledge of the core banking market globally, a number of vendors were invited to respond to a detailed request for information (RFI) form that required them to provide data and supporting documentation around three primary areas: technology, execution, and market impact. In addition to the RFI, the vendors were invited to provide briefings on their solutions.

The analysis of the three primary areas was based on a scoring assessment exercise with a number of sub-criteria. For each response within the RFI that aligned with the respective sub-criteria, vendors were rated on a scale of one to 10 on a consistent set of best-practice criteria or benchmarks defined by Ovum.

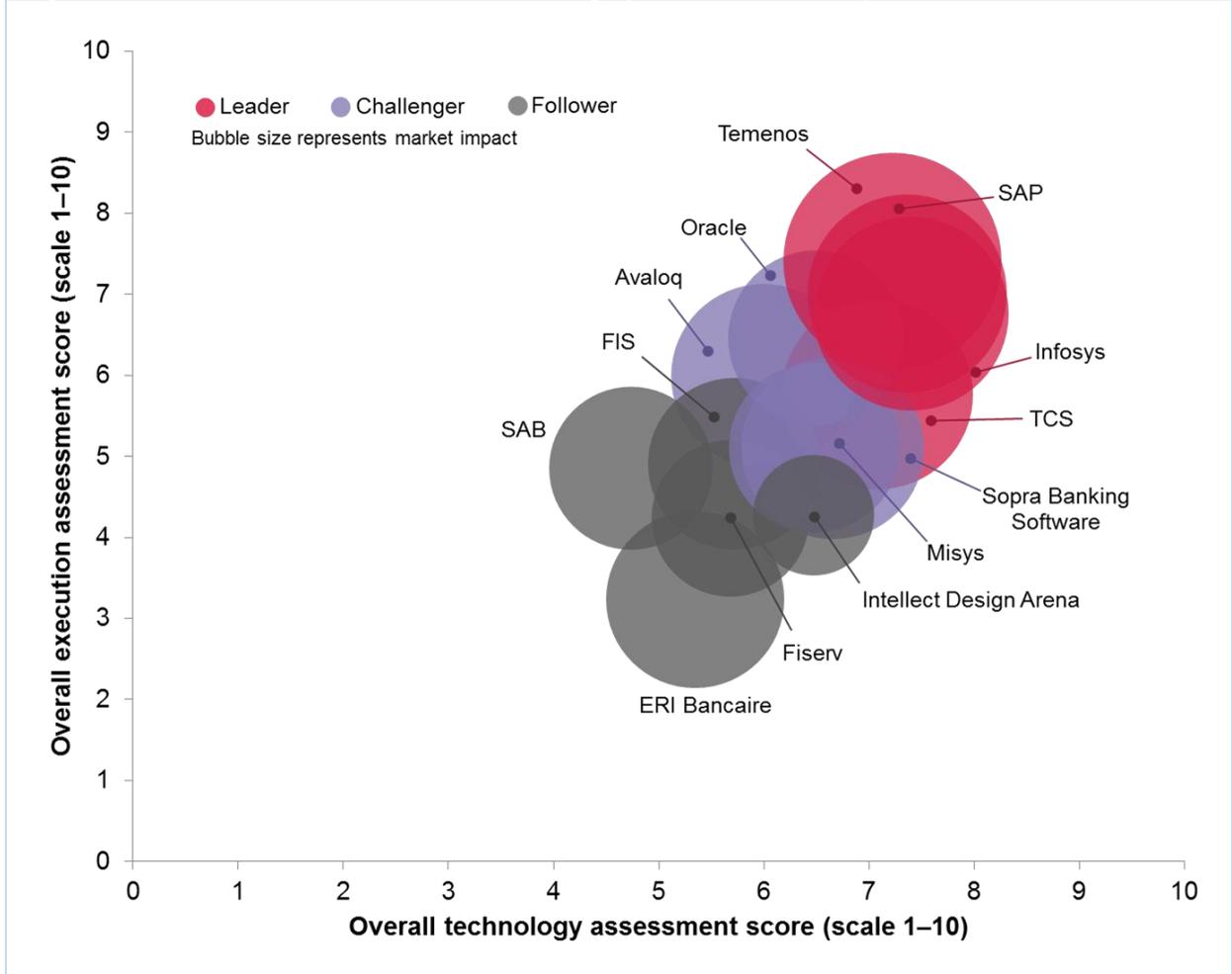
The overall outcome for each sub-criteria is a result of the weighted sum of questions and analysis of the core banking platforms. Weightings are based on analysis of the importance of each criterion in the selection process of a core banking system platform by an institution in the European market.

Ovum ratings

In this Decision Matrix, Ovum provides a summary of each core banking platform's capabilities based on a quantitative assessment of its influence on the European core banking market and the quality and breadth of the functionality provided by the platform and its underlying technology. Ovum also provides guidance for institutions looking to deploy a core banking platform and advises whether they should shortlist, consider, or explore solutions from the vendors assessed in this report. Ovum defines each of these recommendations based on the vendors' positions in the market:

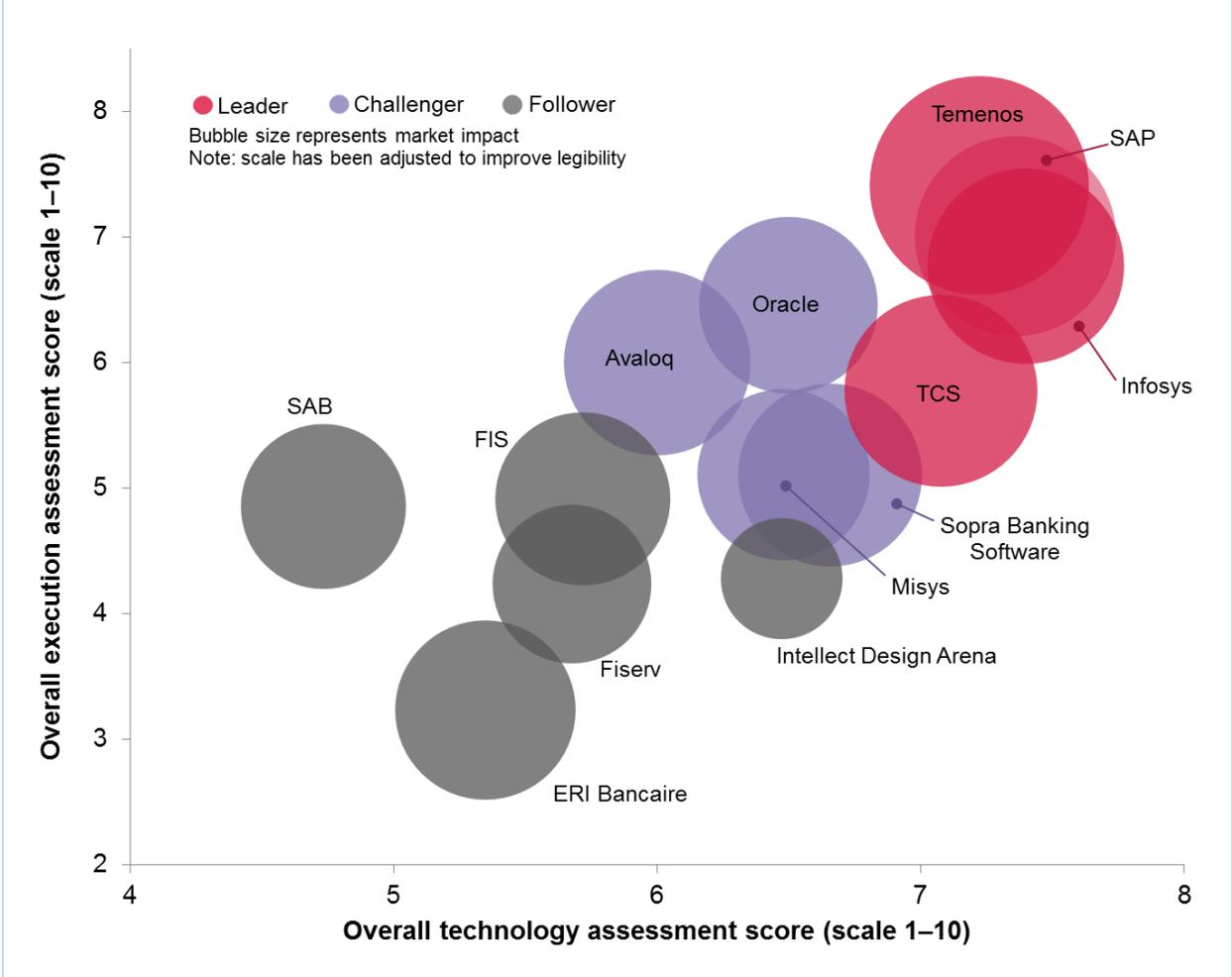
- **Market leader:** This category represents the leading solutions that we believe are worthy of a place on most technology-selection shortlists. The vendor has established a commanding market position with a product that is widely accepted as best-of-breed.
- **Market challenger:** The solutions in this category have a good market positioning along with competitive functionality and should be considered as part of the technology selection.
- **Market follower:** Solutions in this category have strong potential but have not yet reached full maturity in terms of breadth of functionality, technology development, or market impact. However, depending on an institution's own technology and business vision/roadmap, these could be worth exploring for their upcoming potential.

Figure 1: Ovum Decision Matrix: Core banking systems in the European market, 2016–17



Source: Ovum

Figure 2: Expanded view of Ovum Decision Matrix: Core banking systems in the European market, 2016–17



Source: Ovum

Table 2: Ovum Decision Matrix: Core banking systems in the European market, 2016–17

Market leaders	Market challengers	Market followers
Infosys	Avaloq	ERI Bancaire
SAP	Oracle	FIS
Tata Consultancy Services (TCS)	Sopra Banking Software	Fiserv
Temenos	Misys	Intellect Design Arena
		SAB

Source: Ovum

Primary assessment criteria

Evaluation categories

Given that the competitive landscape may vary significantly across the evaluation categories in Ovum's Decision Matrix – technology assessment, execution assessment, and market impact – it is important to consider these three categories separately in order to develop a more complete understanding of each vendor's particular strengths and challenges. The following section presents a vendor comparison in each category and discusses how they vary across the sub-criteria within each assessment area. Note that the scores given here reflect a vendor's positioning against other vendors.

Market impact

The following criteria were used to assess the market impact evaluation category.

- **Market presence** – An assessment of the installed base of a vendor's core banking systems in Europe, with more important markets and higher-tier banking clients weighted more. The measure also includes analysis of revenue development over the last three years.
- **Market growth** – An analysis of the development of banking revenue, general revenue, and client base.
- **Partnership network** – An assessment of the strength of the partner network from a go-to-market perspective in Europe.
- **Industry focus** – An assessment of the core banking vendor's history of activity in the banking platform market with a focus on the primacy of core banking to the vendor's revenue stream.
- **Installed base and clients** – An assessment of the client base, breadth of clients in the region, and size of the client banks in Europe.

Figure 3: Market impact by sub-criteria

Sub-criteria	Market presence	Market growth	Partners	Industry focus	Installed base and clients
Avaloq	4.0	6.4	6.4	8.3	4.9
ERI Bancaire	5.4	3.7	2.8	7.5	6.8
FIS	5.7	4.7	2.0	4.3	5.2
Fiserv	4.4	3.8	2.0	4.6	4.3
Infosys	5.7	6.3	8.8	4.5	5.8
Intellect Design Arena	1.9	2.2	2.4	4.9	1.7
Misys	3.9	5.4	8.8	4.7	2.5
Oracle	4.7	4.5	10.0	1.6	5.4
SAB	2.8	4.1	8.0	7.2	3.6
SAP	6.9	6.5	6.8	2.8	7.2
Sopra Banking Software	4.8	5.6	6.8	5.1	5.4
TCS	6.1	5.6	5.2	6.5	6.0
Temenos	7.3	5.7	10.0	8.6	9.3

Source: Ovum

Among the vendors with largest impact on the European core banking market are some global players and some local software vendors. Being a globally significant core banking software vendor as well as being based in Europe seems to help create a large market presence in Europe, with Temenos having the largest overall market impact score, followed closely by SAP. Infosys and TCS have gained significant ground in Europe and their market impact in the region is aided by their other IT services businesses, which also have a significant presence in the region.

The go-to-market strategy of vendors is roughly divided, with some vendors using partners and others relying on their internal capabilities. The use of external partners with a large market presence has its benefits; these systems integrators, such as Capgemini, Deloitte, and Accenture, have access to a very large number of banks and other financial services firms and therefore act as effective sales channels. Consequently, especially for those software vendors for which Europe is not their home market, the use of partners may be beneficial. However, some vendors such as TCS that provide a range of other IT services and have strong client bases in Europe, aided by their other businesses, have a strong presence in the market without having to rely heavily on partner networks.

Technology assessment

The following criteria were used for the technology assessment evaluation category:

- **Technology design, architecture, and roadmap** – An assessment of the design and functionalities of the core banking system and its development plans from a technology point of view.
- **Business process** – Analysis of the approach to business process management, availability of tools, and use of current/emerging standards in business process control.
- **Third-party integration** – An evaluation of the approach to integration, including assessment of the capability to manage external applications and support for standards.
- **Scalability** – An assessment of the system's capability to support large banks' needs.
- **Product depth** – An assessment of the product's coverage and installed base. Measurement includes products specific to retail banking and analysis of coverage of universal banking.

Figure 4: Technology assessment by sub-criteria

Sub-criteria	Technology design, architecture, and roadmap	Business process	Third-party integration	Scalability	Product depth
Avaloq	6.2	6.6	7.0	6.0	5.3
ERI Bancaire	6.6	5.2	5.0	6.0	4.3
FIS	5.9	5.2	5.1	10.0	4.6
Fiserv	5.4	5.8	4.7	8.0	5.5
Infosys	7.7	6.6	5.9	10.0	7.1
Intellect Design Arena	6.9	4.8	4.2	10.0	6.3
Misys	8.6	6.8	5.9	4.0	5.6
Oracle	6.5	7.4	5.7	8.0	6.1
SAB	5.5	4.0	3.8	4.0	4.8
SAP	7.9	7.4	6.0	10.0	6.5
Sopra Banking Software	7.2	6.6	5.7	10.0	5.5
TCS	7.1	7.4	6.3	10.0	6.3
Temenos	8.5	6.6	4.6	6.0	7.5

Source: Ovum

The retail banking functionality of the platforms is relatively mature for most of the vendors. However, simply being able to offer a product is not enough; to deliver the products, the vendor has to have the appropriate technology architecture, business functionality, and experience in local markets to deal with the product requirements, processes, and compliance needed to deliver the products. Having deployments in a number of European markets gives the software vendor better product delivery capability. Some vendors – such as Temenos – fared well in this category because they have implemented their products in many European markets.

The evaluation was focused more heavily on the retail banking product side, but also included universal banking. Over the last decade there has been a lot of development in this area and a number of software vendors offer a wide range of products. However, the same point about delivery capability applies here as well.

Execution assessment

The following criteria were used for the execution assessment evaluation category.

- **Deployment, maintenance, and upgrades** – An assessment of the approach to data migration, deployment, updating, and upgrading, with a focus on tools, automation, and deployment options.
- **Partners** – An analysis of the strength of the partnership network available for deployment and support in Europe.
- **Training and support** – An analysis of the strength of a vendor's capability to provide training and support in Europe.
- **Compliance** – An assessment of the vendor's capability to provide reporting and analytics tools to enable the banks to respond to the requests of the European and global regulators.

- **Capability to function in a multi-country and multi-language environment** – An assessment of the ability to provide services for banks functioning in many countries, in regions where a number of European languages are spoken. Measurement included analysis of multi-entity and multi-country capability.

Figure 5: Execution assessment by sub-criteria

Sub-criteria	Deployment, maintenance, and upgrades	Partners	Training and support	Compliance	Multi-country and multi-language capability
Avaloq	6.0	7.0	4.9	6.0	6.5
ERI Bancaire	2.5	2.3	3.9	4.0	3.5
FIS	4.6	1.7	6.4	6.0	5.5
Fiserv	3.2	1.7	5.2	6.0	5.3
Infosys	5.9	9.0	6.2	8.0	5.9
Intellect Design	4.3	3.0	3.9	4.0	5.8
Misys	2.5	7.3	6.3	8.0	3.3
Oracle	4.0	9.3	7.3	8.0	5.2
SAB	5.3	6.7	3.5	4.0	5.0
SAP	5.4	7.0	8.7	6.0	7.5
Sopra Banking Software	3.2	7.3	5.1	4.0	6.2
TCS	5.3	5.0	5.8	6.0	6.8
Temenos	5.2	10.0	5.6	10.0	8.5

Source: Ovum

The execution capabilities of the software vendors largely correlate with their local presence, expertise, and experience. Companies with substantial installed bases in Europe and large partner networks or significant internal implementation and support capabilities tended to do well in this area. For this reason, it is not surprising that Temenos, Infosys, SAP, and TCS were among the companies with the highest-ranking execution capabilities. The evaluation looked especially for demonstrated implementation capability in Europe.

The assessment also included analysis of the availability of deployment options. The most common mode of deployment for all the software vendors still tends to be licensed software. Despite the hype about software-as-a-service (SaaS), for most software vendors only a very small fraction of the client base – around 1% or 2% – is deployed in this way. This may grow in future, but many of the software vendors did not have a well-defined SaaS strategy for their platform. Banks may be opening up to different deployment options, however: Avaloq, the only BPO provider among the software vendors, has seen considerable growth in its client base in Europe.

Vendor analysis

Tata Consultancy Services

Background

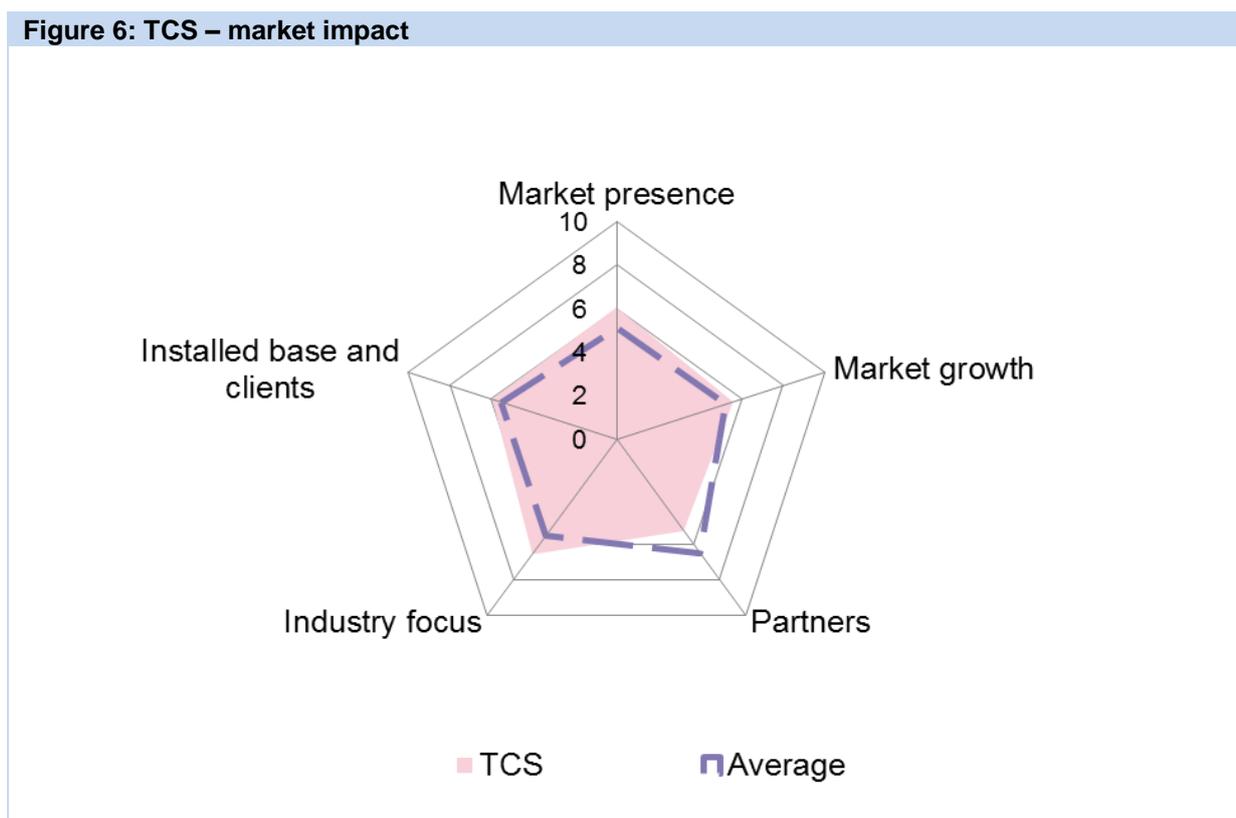
Tata Consultancy Services (TCS) is a \$15bn+ revenue global IT services, consulting, and business solutions provider headquartered in India. The company is heavily focused on the financial services

sector, obtaining around 40% of its revenues from the banking, capital markets, and insurance domains.

Its core platform offering is provided by its strategic business unit, TCS Financial Solutions; its platform offering for financial services is the TCS BaNCS brand. As a company, TCS's move to provide its own core banking offering (in addition to integration and implementation services) came with the acquisition of Financial Network Services (FNS) in 2005. FNS was a core provider, and was well established with a number of top-tier clients such as State Bank of India. This was followed by the acquisition of TKS-Teknosoft for its wholesale banking, private banking, and wealth management solutions in 2006. TCS re-architected the solutions with other in-house developed solutions under a common integrated platform branded TCS BaNCS.

Market impact assessment

Figure 6: TCS – market impact



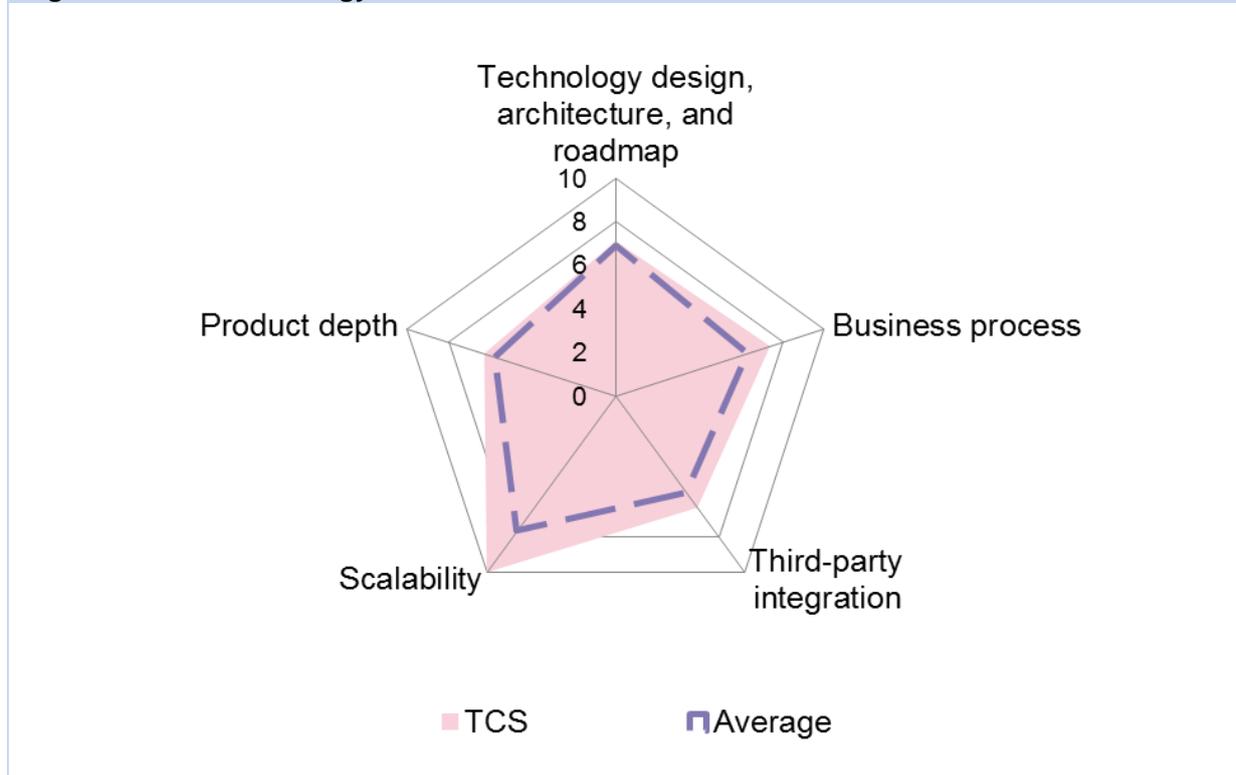
Source: Ovum

Since 2011 TCS has nearly tripled its client base. The majority of its clients are small banks based in Asia-Pacific. However, TCS also has a considerable installed base in Europe, with 48 clients, and with most installations in Switzerland. The growth of the installed base for TCS BaNCS has been driven mainly by the Asia-Pacific region; client growth in Europe has been relatively flat. Current clients in Europe include relatively more tier-1 and 2 clients. Globally, TCS BaNCS' customer base tends to be concentrated in the tier-3 to 5 segment. As a systems integrator TCS handles most of its implementation and support itself and does not have partners specifically for Europe, although it does have partner relationships in some regions. TCS has a wide variety of other products and services in addition to its core banking software and the company is also strong as a global multi-sourcing

provider for most top-tier banks. Because of the range of services that TCS offers, it has multiple offices in Western European countries.

Technology assessment

Figure 7: TCS – technology

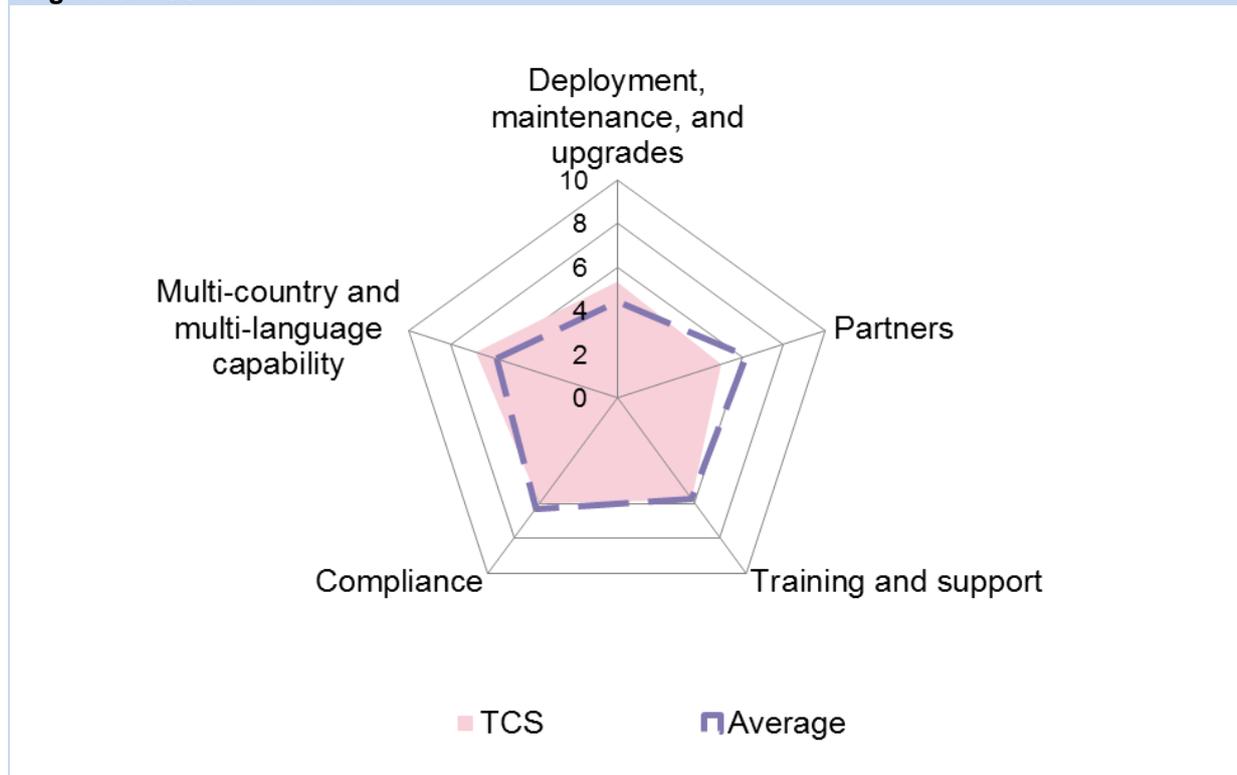


Source: Ovum

The TCS BaNCS platform has strong underlying technology architecture, being an n-tier platform designed around use of services and business processes. TCS provides a comprehensive universal banking platform across retail, SME, commercial, and corporate banking. It also provides significant functionality on the capital markets side. The system integrates with internal and third-party systems, taking advantage of its SOA-based architecture and integrating with other systems using services. Business process management capabilities are catered to by solutions from Activiti and IBM WebSphere. The platform is very scalable, with the largest implementation being more than 400 million accounts.

Execution assessment

Figure 8: TCS – execution



Source: Ovum

TCS BaNCS has been deployed in a number of Western, Central, and Eastern European countries and the mobile, online, and teller banking interfaces have been implemented in the most common European languages. Main support for the banking platform is provided from a global support center in India, but it also has support centers in the UK, Switzerland, and Hungary. TCS has strong in-house IT services capabilities and completes implementations often. It has some partners, but for Europe the company prefers to use its own services capabilities rather than the partner model. Given its in-house implementation and support capability, TCS's training and certification program is not as strong as those of software providers that have outsourced the systems integration part of their work. TCS provides minor upgrades to its banking platform three times a year, with a major upgrade once a year, and the company offers a service to map out impacted system areas before upgrading.

Recommendation: Market leader

The TCS BaNCS platform provides a strong all-round offering and a wide breadth of business functionality, and has built a reasonable client base in Europe. The banking platform is of particular interest to corporate, investment, and wealth players providing retail banking operations that want to benefit from a common platform. The TCS BaNCS platform is a core banking offering capable of servicing a wide range of tiers.

Appendix

Further reading

2016 Trends to Watch: Retail Banking, IT0003-000671 (November 2015)

ICT Enterprise Insights 2015/2016 – Financial Services & Payments: Retail Banking, PT0060-000003 (October 2015)

Solution Guide to International Retail Banking Core Systems, IT003-000326 (February 2011)

"Customer experience drives retail banking IT spending in 2016," IT0003-000677 (December 2015)

"Can vendor packages meet the needs of tier-1 banks in core systems replacement?" IT003-000516 (October 2012)

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