

# Ovum Decision Matrix: Selecting a Digital Banking Platform, 2019

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Matthew Heaslip



# Summary

# Catalyst

Digital channels have become well established as the most popular way for customers to engage with banks, but the market is now moving on to qualitative differentiation of services. Banks are therefore under growing pressure to deliver an exceptional experience across all digital channels including new ones as they emerge, such as virtual reality (VR). As part of a rounded approach, they need to provide customers with secure digital banking services as well as increasingly generate sales through digital channels.

The market for digital channel platforms has changed significantly over the last few years, with competition becoming increasingly fierce. The majority of vendors now offer channel-agnostic digital banking platforms as part of a more cost-effective and user-friendly approach. With growing regulatory acceptance, and banks increasingly seeing the benefits, the current shift is toward more vendors offering cloud-based platforms. Alongside this, there is growing demand for intelligent platforms that include elements of artificial intelligence (AI), whether in smart chatbots or augmented reality (AR) for customer interactions or for analyzing customer behavior. All this comes against a backdrop of banks searching for greater insights into customer behavior while further reducing costs through lower staff headcounts.

This Ovum Decision Matrix (ODM) provides a reference guide to digital banking platform providers, profiling the leading vendors, their platforms, and their positioning.

#### Ovum view

Ovum expects the digital banking platform market to continue on its growth path over the next year or two, as banks continue to replace outdated systems, adapt to new regulations, and cater to changing customer expectations. With digital channel experience now a clear differentiator in the banking industry, a bank's choice of digital banking platform will have a significant impact on its competitive capability. The digital banking platform therefore needs to be selected with care, with the bank considering its adaptability in catering to new channels and providing customers with new financial management insights, all while further enhancing security and reducing friction points. Banks also need to weigh up the software vendor's capability to carry out the transformation project successfully, delivering both IT and business value.

This ODM assesses the top vendors in the market that have broad capabilities, with the leading vendors being able to fully satisfy the complex needs of the sector.

# Key findings

- Digital banking platforms are increasingly moving to the cloud.
- Greater competition provides banks with more choice in finding the platform that precisely fits their requirements.
- Next-generation customer interaction and financial management capabilities will become a key differentiator.

# Market context

# Digital banking platforms are increasingly moving to the cloud

The shift toward digital banking platforms being provided from the cloud, and the cloud's potential benefits, have been well discussed in recent years, although cloud adoption has been consistently held back by bank and regulator concerns about security, data protection, and reliability. What can clearly be seen in today's market is how the market as a whole is now comfortable with using the cloud, and banks are increasingly opting for it in new deployments. While some financial institutions may choose alternative deployment methods, and the majority of vendors cater to the cloud, those with greater experience gained in recent years currently retain an advantage in building and maintaining a solid customer base.

# Greater competition provides banks with more choice in finding the platform that precisely fits their requirements

One of the key findings of this year's ODM is the increasing level of competition, with numerous vendors having closed the gap on the market leaders by offering platforms with a broader set of modern digital banking capabilities. As a result, there are more candidates for banks to shortlist when considering new platforms. A key part of any shortlisting process should therefore be to identify precisely the areas on which the bank wishes to focus its digital efforts and pick the vendors with next-generation expertise that sets them apart in those areas. With the majority of vendors catering to the use of third-party software through APIs, it is possible for banks to add on further market-leading capabilities in specific areas outside a vendor's core functionality.

# Next-generation customer interaction and financial management capabilities will become a key differentiator

A number of vendors already have live deployments featuring next-generation capabilities for customer interaction and personal financial management, which look set to become the next key differentiator between the market-leading platforms. Whether it be AR experiences to help with mortgage applications, personalized insights into spending behavior, or location-specific targeted marketing, there is an increasing range of features being tested that offer the potential to transform the ability of banks to drive sales, cut costs, and improve customer retention. While many of these are still in a relatively early stage of development, they have the potential to result in greater differentiation between the next group of market leaders and those challenging them.

# Vendor solution selection

#### Inclusion criteria

This ODM provides a quantitative and qualitative representation of Ovum's view of the competitive digital banking platform market on a global level.

The vendors selected for this ODM are active providers in a number of markets and seek out new standalone deals in this space. They have the ability to service a significant number of markets,

provide full retail banking product support, and meet the needs of a broad range of banks. They are also capable of serving at least online and mobile banking channels, with nearly all having architectures that allow them to expand the devices covered on the same platform.

The list of vendors is not exhaustive, but Ovum believes it represents the main vendors worthy of consideration by banks looking for digital banking solutions capable of providing the tools required to help them excel in the digital economy. In individual countries there are local players, niche software providers, and companies that custom design digital banking platforms for banks, which are not included in the ODM. It is also worth noting that many of the digital banking vendors have a number of other products; the products evaluated here are only the digital banking platform offerings, and the scores focus on the flagship platform. The 10 vendors and products assessed are listed in Table 1.

Table 1: Vendors and products included in the Ovum Decision Matrix for digital banking platforms

Vendor	Digital banking platform
Backbase	Backbase Digital Banking Platform
Crealogix	Crealogix Digital Banking Hub
Fiserv	DigitalAccess
EdgeVerve Systems (Infosys Finacle)	Finacle Digital Engagement Suite
ieDigital	Interact
Kony	Kony DBX
Finastra	Fusion Essence Digital
Oracle	Oracle Banking Digital Experience
SAP	C/4HANA Customer Experience Suite
Temenos	Temenos UXP

Source: Ovum

# Overall assessment

This ODM provides a summary of each vendor's digital banking platform's capabilities, based on a quantitative assessment of its market impact in the digital channel platform market globally and of the quality and breadth of functionality provided by the platform and underlying technology. The greatest weight is given to each platform's ability to fulfill retail banking needs, but the ODM also evaluates its wealth management and corporate banking coverage. Alongside this, Ovum provides an assessment of each vendor's execution capabilities. The evaluation relates to particular products and capabilities around digital banking rather than the whole company and its full offering.

Banks looking for a digital banking 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. The positioning should be used in the context of evaluating specific vendors' strengths and capabilities and how they align with the bank's overall strategy and objectives.

# Methodology

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

The analysis of these three primary areas was based on a scoring assessment exercise with a number of subcriteria. For each response within the RFI that aligned with the respective subcriteria, vendors were rated on a scale of 1–5 on a consistent set of best-practice criteria or benchmarks defined by Ovum.

The overall outcome for each subcriteria is a result of the weighted sum of questions and an analysis of the digital banking platforms. Weightings are based on an analysis of the importance of each criterion in a bank's selection process for a digital banking platform. A weighted sum of the axis gives an evaluation from 1 to 10 for each solution in the three assessment areas of market impact, technology, and execution.

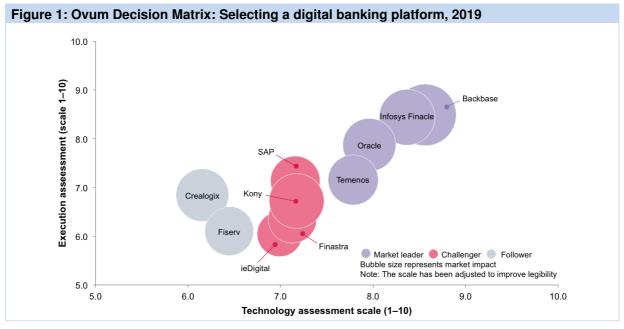
# Ovum ratings

In this ODM, Ovum provides a summary of each digital banking platform's capabilities based on a quantitative assessment of its influence on the global banking solutions market and of 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 digital banking platform and advises whether they should shortlist, consider, or explore solutions from the vendors assessed in this report.

All the vendors profiled in this report are of merit, and their inclusion is based on Ovum considering that their platforms are able to meet the current and future needs of banks in their digital banking strategies.

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 market impact, breadth of functionality, or technology development. However, depending on an institution's own technology and business vision or roadmap, these would be worth exploring for their upcoming potential or strong fit in particular markets.



Source: Ovum

Table 2: Ovum Decision Matrix: Selecting a digital banking platform, 2019

Market leaders	Market challengers	Market followers
Backbase	Finastra	Crealogix
Infosys Finacle	ieDigital	Fiserv
Oracle	Kony	
Temenos	SAP	

Source: Ovum

# Primary assessment criteria

# **Evaluation categories**

Given that the competitive landscape may vary significantly across the evaluation categories in the ODM (market impact, technology, and execution), 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 the vendors differ across the subcriteria 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 vendors' market impact:

- Market presence: An assessment of the installed base of a vendor's digital banking platform globally, with more important markets weighted more. The measure also includes an analysis of revenue development over the last three years and the company's presence across markets.
- Market growth: An analysis of the development of the vendor's banking revenue, general revenue, and client base.
- Partners and vendor presence: An analysis of the vendor's market-serving capability and the growth of its presence across markets, including its extended presence through a partner network.
- Industry focus: An assessment of the vendor's history of activity in the banking platform
  market, with a focus on the primacy of digital banking platforms in the vendor's revenue
  stream. The assessment also takes into account staff dedicated to banking platforms and
  research and development (R&D).
- Installed base and scale of deployments: An assessment of the vendor's client base.

Table 3: Market impact by subcriteria

Infosys Finacle   7.5	Table 5. Market Impact by Subt	Jittoria	
Infosys Finacle   7.5	Criteria group	Vendor(s)	Score
Temenos/Kony   7.1	Market presence	Backbase	8.0
Market growth         Backbase         8.3           Kony         7.0           Infosys Finacle         5.2           Partners and vendor presence         Oracle         7.1           Backbase         6.6           Infosys Finacle/SAP         6.4           Industry focus         Backbase         9.7           Crealogix         9.0           Kony         8.3           Installed base and scale of deployments         Packbase         7.8           Oracle         6.3		Infosys Finacle	7.5
Kony 7.0  Infosys Finacle 5.2  Partners and vendor presence Oracle 7.1  Backbase 6.6  Infosys Finacle/SAP 6.4  Industry focus Backbase 9.7  Crealogix 9.0  Kony 8.3  Installed base and scale of deployments 7.8  Oracle 6.3		Temenos/Kony	7.1
Infosys Finacle   5.2	Market growth	Backbase	8.3
Partners and vendor presence    Comparison of Comparison o		Kony	7.0
Backbase   6.6		Infosys Finacle	5.2
Infosys Finacle/SAP  6.4  Industry focus  Backbase  9.7  Crealogix  40  Kony  Backbase  7.8  Oracle  6.3	Partners and vendor presence	Oracle	7.1
Industry focus  Backbase  Crealogix  Fony  Backbase  7.8  Oracle  6.3		Backbase	6.6
Crealogix 9.0  Kony 8.3  Installed base and scale of deployments  Oracle 6.3		Infosys Finacle/SAP	6.4
Kony  8.3  Installed base and scale of deployments  Oracle  6.3	Industry focus	Backbase	9.7
Installed base and scale of deployments  Backbase  Oracle  6.3		Crealogix	9.0
deployments Oracle 6.3		Kony	8.3
		Backbase	7.8
Infosys Finacle 6.2		Oracle	6.3
		Infosys Finacle	6.2

Source: Ovum

The market impact section of the ODM explores the solution's current position and its potential in the market. A solution from a vendor that has a big core banking presence has great potential for cross-sell, so it is not surprising that companies such as Infosys have a high market impact score. However, Backbase, which is focused solely on digital banking platforms, is also among the leaders in terms of market impact. Some vendors focus on internal deployment strength for delivery, with small partner networks. However, a partner network can be effective in selling digital banking solutions because externalizing the sales function to a company with a global presence is an easy way to expand market reach. The digital channel platform market is set for growth, as demonstrated by the fact that many vendors have grown their installed base considerably over the last few years.

#### **Technology assessment**

The following criteria were used for the technology assessment:

- Technology design, architecture, and roadmap: An assessment of the design and functionalities of the digital banking platform and its development plans from a technology point of view.
- Business adaptability: An analysis of the ability to analyze, optimize, and change the
  platform in terms of the complexity of the change process and the extent of changes possible.
- End-user adaptability: An analysis of the opportunities for the end user to control their banking experience.
- Security: An assessment of the platform's approach to security.
- Customer experience: An assessment of the platform's customer experience optimization capabilities.
- Sales and marketing support: An analysis of marketing and sales support capabilities, including the capability to capture, analyze, and use data from the digital banking platform for these purposes.

Table 4: Technology	assessment by	subcriteria
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Vendor(s)	Score
Backbase	9.5
Oracle/Infosys Finacle	9.1
Temenos	8.4
Backbase	9.1
Oracle	8.2
Infosys Finacle/Temenos	7.8
Infosys Finacle	8.3
Backbase	8.1
ieDigital	7.7
Infosys Finacle/Backbase	9.2
Oracle	8.7
Kony	8.3
Infosys Finacle	7.4
Temenos	7.3
Backbase	7.2
Oracle	9.1
Backbase/Infosys Finacle	8.0
Temenos	7.6
	Backbase Oracle/Infosys Finacle Temenos Backbase Oracle Infosys Finacle/Temenos Infosys Finacle Backbase ieDigital Infosys Finacle/Backbase Oracle Kony Infosys Finacle Temenos Backbase Oracle Backbase

Source: Ovum

The core digital business functionality of most platforms is well developed, with many vendors having offered their solutions on the market, or versions of them, for years. Over the last five years, however, many solutions have undergone reengineering upgrades. Competition is increasingly fierce in this area, with multiple vendors offering technology architecture capable of meeting the core requirements of a modern digital banking platform that provides an excellent customer experience. The market leaders offer an all-round set of outstanding core capabilities, while also featuring live deployments of next-generation capabilities.

#### **Execution assessment**

The following criteria were used for the execution assessment:

- 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 globally.
- Training and support: An analysis of the strength of a vendor's capability to provide training and support globally.
- Maturity and scale: An assessment of the solution's stage in its maturity lifecycle as well as
  the capability to scale across different scenarios.
- Country coverage: An assessment of the ability to provide services to banks functioning in different markets in various languages. The measurement includes an analysis of multi-entity and multi-country capability.

Table 5: Execution assessment by subcriteria		
Criteria group	Vendor(s)	Score
Deployment, maintenance, and upgrades	Temenos	9.2
	ieDigital/Infosys Finacle	8.9
	Backbase	8.8
Partners	Oracle/Backbase	10.0
	Six vendors	8.0
Training and support	Temenos	8.9
	Infosys Finacle	8.5
	SAP/Oracle	8.3
Maturity and scale	Infosys Finacle	9.2
	Backbase	9.1
	Crealogix	8.3
Country coverage	Backbase	8.3
	Infosys Finacle	6.9
	Oracle/Kony	6.5

Source: Ovum

The execution assessment looks at the vendor's ability to deploy, support, and maintain its products. The highest-scoring vendors in this category have a regular schedule for maintenance updates and more substantial upgrades. They also have a track record of having been implemented by a number of different banks around the world. The capability to support the solution in the future is also important, as is training of the client and partners. For this reason, companies that have a larger client base tend to fare well in this category.

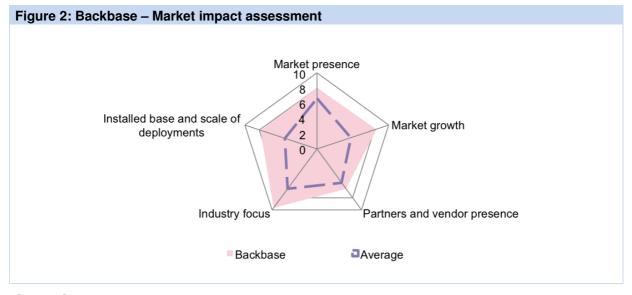
# Vendor analysis

#### Backbase

#### **Background**

Backbase is a privately owned, financial services—focused digital platform vendor headquartered in the Netherlands with offices in the US, Canada, the UK, India, and Singapore. The company was founded in 2003 and launched the Backbase Digital Banking Platform in 2009. Backbase started as a portal platform that was developed for online and mobile banking modernization projects for top-tier banks, and it has evolved into a complete digital banking platform. Because it comes from a custom-created platform background, Backbase has historically had a strong client base, including tier-1 and tier-2 banks, but it has also gained considerable traction among smaller banks since it turned its offering into a digital banking platform product. The company continues to grow rapidly: it now has approximately 690 employees, a considerable increase from a headcount of 172 in 2013. Backbase has consistently dedicated half of its staff to R&D functions in recent years.

#### Market impact assessment

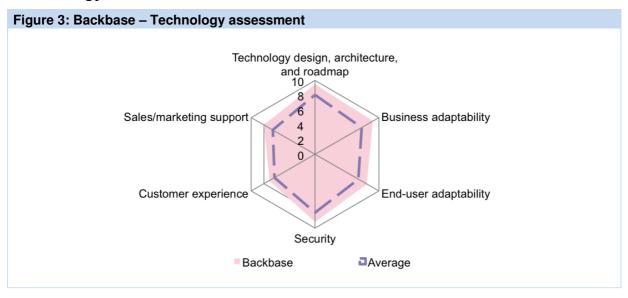


Source: Ovum

Backbase is focused purely on digital platforms, and like the market itself, the vendor has grown rapidly over the past few years, with revenue growing 46% over the past year. The majority of its revenues come from the banking industry, which is the company's main market. Backbase has a global presence, with a well-established global partner network and 175 clients across the world, and

it has a strong presence in both North America and Europe. The company has continued to grow its client base at an impressive rate, adding numerous clients over the past two years across all tiers.

#### **Technology assessment**

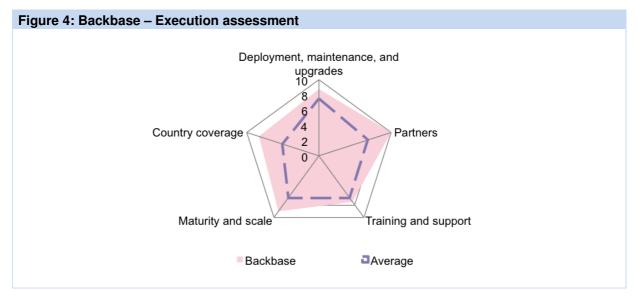


Source: Ovum

Backbase's solution architecture is based on a stateless, decoupled set of microservices. The front end of the solution employs a set of decoupled widgets, such as banking capabilities like bill payment, that can be reused across channels. The widgets are built upon common components, which allows changes to be implemented quickly across all channels. Because Backbase's solution was originally designed primarily as a front-end platform for top-tier banks, it was built to work with multiple modern and legacy systems at the back end: the solution has a data layer that sources data from underlying back-end and core banking systems, which allows the solution to deal with multiple cores and the bank to change its back end without having a major impact on the digital channels. Backbase's Digital Banking Platform has been deployed by a large number of banks around the world, and has been integrated with most of the core banking systems on the market.

Backbase offers banks in-built capabilities for customer experience management and sales generation: the platform has in-app statistics that allow insight into user behavior, integrated A/B and multivariate testing capabilities, and the ability to create targeted marketing campaigns using either the in-built campaign manager or an alternative solution. All content is housed in a single location, for consistency across channels. The platform also includes many features aimed at easing the user experience, such as soft login, a full Facebook banking app (including payment functionality), and the ability to co-browse with customers or communicate with them via video or chat. To allow banks to use financial technology (fintech) innovations, Backbase also has an Open Banking Marketplace, which offers banks direct integrations with fintech companies providing complementary capabilities that can scale to a large client base. In addition to retail banking, the solution caters to the needs of small and midsized enterprise (SME) banking, corporate banking, and wealth management. Backbase's roadmap includes API management capability enhancements and a banking-as-a-service product launch.

#### **Execution assessment**



Source: Ovum

Backbase's solution for banking has been available on the market for almost a decade and is deployed with a large number of clients, making it a very mature solution. The solution is scalable, with the largest live deployment serving 12 million active digital banking users and more than 500,000 active sessions during peak times. Usually, a greenfield implementation takes around 4–6 months, and it can be deployed on-premises, on a private cloud, and as software-as-a-service (SaaS) in the US credit union market. Backbase has a number of systems integration partners, including Accenture, Capgemini, and IBM Global Services, and over 3,600 certified consultants. However, the company also maintains a dedicated implementation and support workforce, with three dedicated support centers worldwide. Backbase's Digital Banking Platform has been implemented in 55 different countries and supports any language and character set (including Arabic, Chinese, Hebrew, and Hindi).

#### Recommendation: Backbase is a market leader

Backbase's Digital Banking Platform is the leading solution on the digital banking platform market. The solution provides banks with the tools to develop a compelling experience on digital channels. It is particularly suitable for larger banks and their more complex legacy environments, as well as banks that have a desire to offer a leading-edge digital experience. Ovum recommends that banks shortlist Backbase's Digital Banking Platform when searching for a competitive digital banking platform solution.

# Crealogix

#### **Background**

Crealogix, headquartered in Switzerland, has a well-established presence in digital banking: the company first launched a digital banking platform in 2004. The vendor is solely focused on the digital banking market and has made a number of strategic acquisitions in recent years to strengthen its offering and market presence, most recently of Innofis in Spain. Crealogix Digital Banking Hub was launched in 2013 and underwent its last major update, version 19, in July 2018.

#### Market impact assessment

Installed base and scale of deployments

Industry focus

Partners and vendor presence

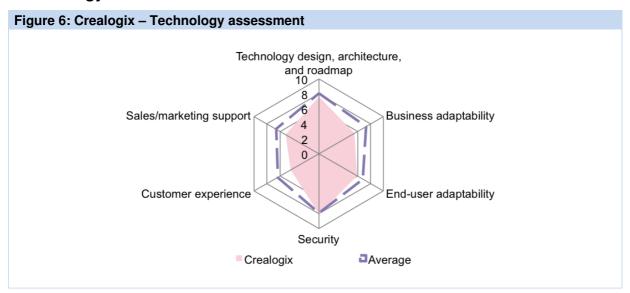
Crealogix

Average

Source: Ovum

Crealogix's core market is Europe, where the majority of its clients are based, and it has a very strong position in Germany and Switzerland. It also has clients based around much of the world. The company has a flexible go-to-market strategy based on both its internal capabilities and its established partner network. Crealogix has seen strong growth over the past two years in its core region, which has seen it further strengthen its position in the European market.

#### **Technology assessment**



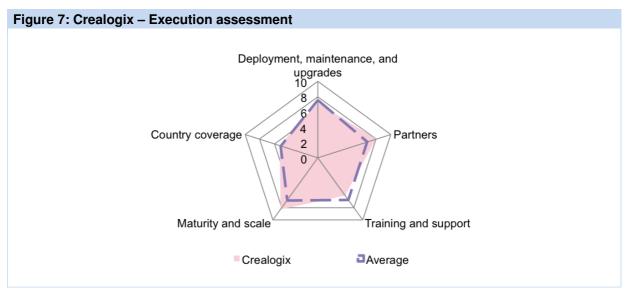
Source: Ovum

Crealogix's platform provides a broad set of capabilities across the general retail banking space, but with functionality for wealth management integrated into common infrastructure, all of which looks to support customer self-service for many day-to-day banking interactions. Chatbot and voice banking functionality is currently in the pipeline, along with Al-supported analytic functions aimed at predictive capabilities focused on life changes. The platform's marketing campaign functions integrate fully with

Crealogix CMS, supporting ad types such as banners, lightboxes, video content, and next-best actions.

Crealogix Digital Banking Hub offers a strong set of security, anti-financial-crime, and general risk management elements. This includes support for biometrics-based authentication and solid multilayered defenses against a variety of internal and external threats. Crealogix maintains partnerships with Promon, Inventx, Entersekt, and Dynatrace to support its security capabilities.

#### **Execution assessment**



Source: Ovum

Crealogix offers a mature solution, and has a strong presence in Europe. The largest implementation of Crealogix Digital Banking Hub counts 4 million end users. Implementation of the platform for a greenfield project usually takes approximately nine months. Maintenance and version updates are provided regularly at set intervals. Crealogix has set teams responsible for integration, but the firm also has a strong set of implementation partners. The company has five support centers dedicated to its market areas and also provides formal training and certification programs for its clients.

#### Recommendation: Crealogix is a market follower

Crealogix provides a solution that enables banks to offer digital banking services on a range of channels. Its platform has a strong presence in its core European markets, with established support and expertise for those markets, and should be a candidate for shortlisting in that region.

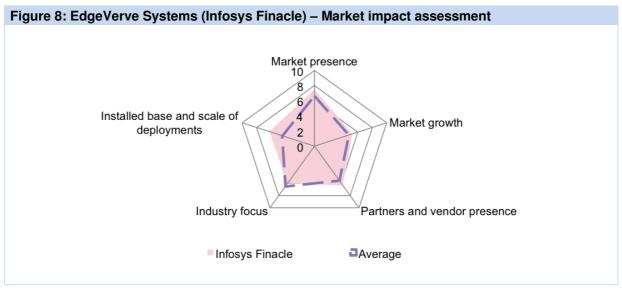
# EdgeVerve Systems (Infosys Finacle)

#### **Background**

EdgeVerve Systems is part of the Infosys group, a leading provider of consulting, technology, and outsourcing services based in India with \$11.3bn in revenue. The company has a strong presence in the banking and capital markets sector, which accounts for over 30% of its overall revenue. In 2015, Finacle, Infosys' banking product, was moved to its products subsidiary, EdgeVerve Systems. EdgeVerve Systems develops software products for banking, distributive trade, credit servicing, customer service, and enterprise buying.

Finacle has a strong retail banking heritage: its first Internet banking solution was released in 1996. Version 11.5 of Finacle Digital Engagement Suite, the version evaluated here, was released in October 2018. The solution has a broad offering, incorporating not only retail banking but also corporate banking and SME banking and wealth management capabilities.

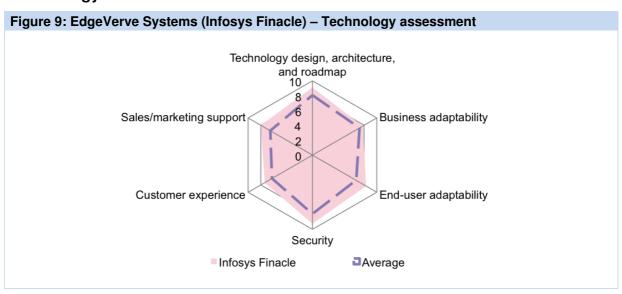
#### Market impact assessment



Source: Ovum

EdgeVerve Systems has a mature digital banking offering that has 266 deployments globally, with a significant footprint in Africa, the Middle East, and particularly Asia. Although it does most of its implementation work in-house, the company also has a number of partners that help it with implementation. In addition to its partners, a central go-to-market strategy for Finacle Digital Engagement Suite is cross-selling to the core banking client base of EdgeVerve Systems: 85% of its digital banking clients also use Finacle for their core system, although a significant proportion of new business has come from outside its core base in recent years.

#### **Technology assessment**



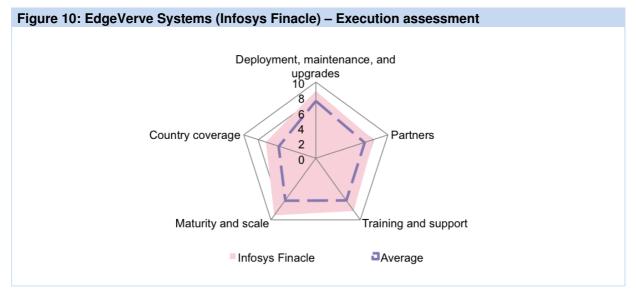
Source: Ovum

Central to the platform is the Finacle Digital Engagement Hub, a channel management solution that offers unified and consistent information across channels. The content on each channel and for each user can be managed and changed by business users by adding or deducting widgets (for instance bill pay), which can be shared and reused across channels. If the bank wishes, the end user can choose which widgets to have on their dashboard.

Finacle supports different types of authentication methods across channels, including risk-based, outof-band and channel limits, biometrics (fingerprint, facial recognition, and voice), and mobile tokens and open authentication. The platform also supports various ways of connecting with the customer, including Finacle's Nia chatbot. The solution is available for many different business segments, including SME and corporate banking, in addition to retail banking. With visual developer tools and an app builder tool, a bank's business users can customize the user interface.

End-user self-service and customization possibilities are well supported by the platform: account information can be managed in a number of ways, and end users can open new accounts, resolve transaction disputes, perform card management—related activities such as ordering a new PIN or blocking a card, and adjust the look and feel of their dashboard by managing widgets. The platform also offers end users extensive options to manage their privacy settings, in full compliance with general data protection regulation (GDPR).

#### **Execution assessment**



Source: Ovum

Infosys Finacle's solution is mature. Its largest live deployment serves 34 million users, and the solution has live sites supporting more than 33,000 concurrent users. Greenfield implementations have been achieved in 8–10 weeks. EdgeVerve Systems delivers weekly maintenance patches, the application of which usually takes around 10–15 minutes, and a new version is released every six months. Finacle Digital Engagement Suite has been implemented in numerous countries and is available in a wide range of languages, including Arabic, Hindi, Spanish, and German. The platform also supports multi-entity and white labeling: ICICI Bank, for instance, offers four different types of branding on one installation, and the largest multi-entity installation covers 19 countries. Infosys' services team mainly implements the platform, but the company has a number of partners in this area

covering different geographic regions. It has a well-established training program for its partners and clients, and 13 support centers globally.

#### Recommendation: EdgeVerve Systems (Infosys Finacle) is a market leader

Finacle Digital Engagement Suite provides a strong digital banking platform that caters to the needs banks in the digital economy and supports the delivery of next-generation services, while providing broad omnichannel capabilities. Ovum recommends that banks shortlist the solution when considering a digital banking platform.

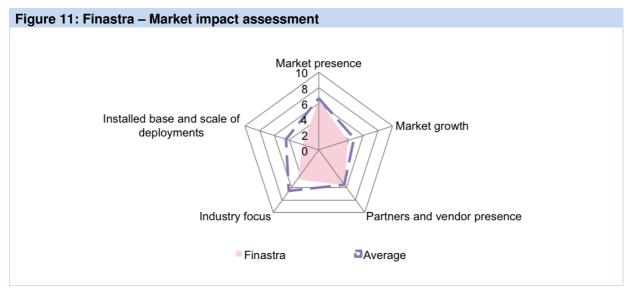
#### **Finastra**

#### **Background**

Finastra is a UK-based financial technology vendor with \$2bn in revenue, formed by the merger of Misys and D+H in 2017. Finastra offers financial services software for retail and corporate banking, asset management, and capital markets. The company has significant heritage and an established client base in retail banking. In June 2018, the company acquired Malauzai to enhance its Digital Banking Experience offering, particularly for US credit unions and community markets institutions.

Finastra's Fusion EssenceDigitalplatform is an evolution of what was Misys' digital channels platform and has been available in the market since 2012, with its last major upgrade in June 2018. As part of Finastra's "Fusion Essence" range, the platform shares common infrastructure with some of its other retail banking–focused solutions.

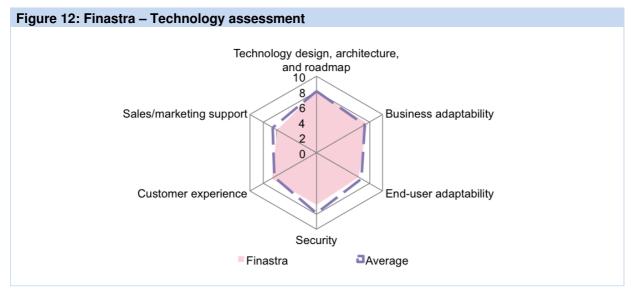
#### **Market impact assessment**



Source: Ovum

Finastra's digital banking offering is a key driver for the company on the retail banking side of its business, both as a standalone offering and as a solution integrated with its core. In recent years, the digital banking platform has been consolidating its position in its core markets – Europe and Africa – while also building a presence in Asia, where the platform's flexibility has proven popular in underbanked markets. Finastra has an established partner network that includes IBM, Deloitte, and McKinsey.

#### **Technology assessment**



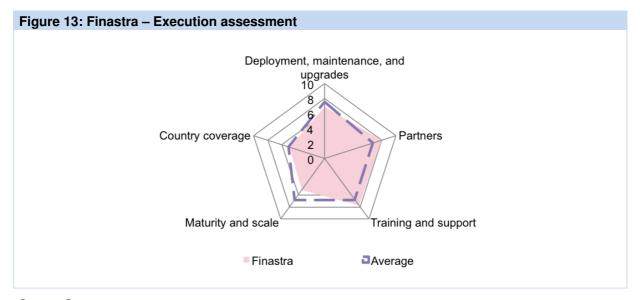
Source: Ovum

Fusion Essence Digital is a channel-agnostic, multichannel platform with user-centric widgets that can be reused and shared across channels. Adjustment and customization of the platform by a bank's business users is enabled by a repository of digital channel platform components that has over 100 entries of integrated and tested libraries and interfaces. For even more customization, banks and third parties can extend the platform with an Extension Development Kit.

Improvements to the customer experience on the platform are developed and provided by Finastra's internal Labs department, which analyzes customer behavior on the platform and combines this information with market trends. The improvements are either built into the digital banking platform or shared with the banks, which can modify their user experience using the digital development toolkit, which allows additional business and user interface logic to be built on top of the platform.

The platform enforces two-factor authentication in all functions where loss of property is possible; the authentication methods include one-time passwords (OTPs), mobile tokens, face recognition, and fingerprint authentication on mobile devices.

#### **Execution assessment**



Source: Ovum

Finastra's solution has been implemented in 24 countries around the world. While the default language is English, the platform has live deployments in a wide range of languages, including Hungarian, German, Chinese, Spanish, Arabic, and Burmese. As a product company, Finastra has a well-established partner network, although these partners tend to do more work with the company's other products. The largest deployment of the platform currently serves 1.2 million users and has proven to be highly scalable with new clients. A greenfield deployment typically takes 3–9 months, updates take 3–5 days, and more substantial updates take 5–10 days.

#### Recommendation: Finastra is a market challenger

Finastra's continued investment in its digital banking platform allows the company to provide banks with a modern, integrated digital banking platform solution capable of catering to the core needs of the market. Ovum recommends that banks consider Fusion Essence Digital when searching for a digital banking platform solution.

#### **Fisery**

#### **Background**

Fiserv is primarily focused on providing technology systems and services to the banking and payments industries, with significant strength in banking transaction platforms (across core and channels) and payment processing, complemented by a growing focus on the analytical side of banking (e.g. risk, compliance, and management information systems). Fiserv offers a number of online banking platforms; this ODM reviews Fiserv's global (non-US) DigitalAccess platform.

#### Market impact assessment

Installed base and scale of deployments

Market presence

Market growth

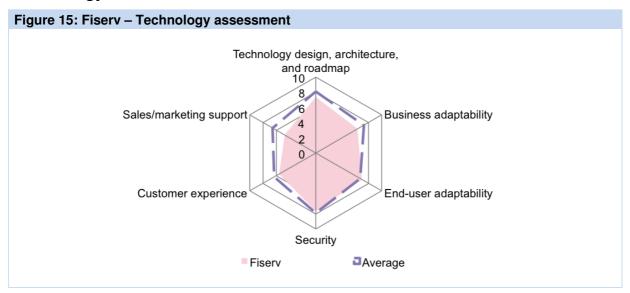
Partners and vendor presence

Average

Source: Ovum

DigitalAccess's main markets are Europe, Asia-Pacific, and Latin America, and it has been gaining clients in all three markets. Fiserv's Architect platform adds to its overall footprint with a strong presence in its primary US market. Fiserv uses its internal resources to deliver solutions and chooses not to use partners, given its scale as one of the largest financial services technology providers in the world.

#### **Technology assessment**



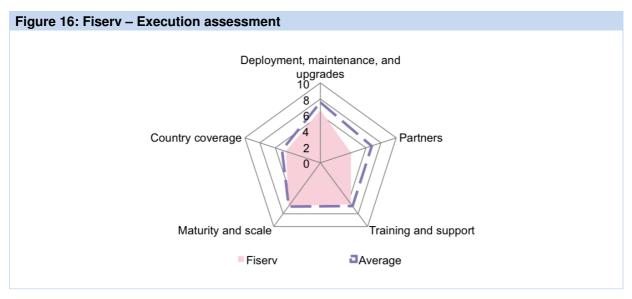
Source: Ovum

Fiserv's DigitalAccess is an omnichannel platform centered on two core modules: DigitalAccess Online, using PC, tablet, and smartphone browsers, and DigitalAccess Direct, using native downloadable applications for smartphones and tablets. There are a number of other optional modules, however, covering a range of functionality areas including P2P payments and marketing campaigns. The platform covers a broad range of digital banking functionality, and Fiserv has a

variety of interesting new features in development, such as a Family Wallet to help family members manage their shared finances.

DigitalAccess comes with a strong set of security features, supporting multiple authentication and authorization methods including biometrics (fingerprint for iOS & Android, and FaceID for iOS), soft-hard tokens, out-of-band OTPs by push notifications or SMS, and customer behavior—led challenges. Fiserv also provides a range of chatbot and advanced analytics through its partnership with Moneythor.

#### **Execution assessment**



Source: Ovum

Fiserv offers two complementary mature solutions in this market, with its primary global platform DigitalAccess first published in 2006 and the latest version released in August 2018. DigitalAccess is deployed in 18 countries worldwide, with its sister platforms increasing Fiserv's global footprint. DigitalAccess's largest live deployment has 4 million active customers, although the vendor is currently implementing it for a large multi-entity institution from which it expects a higher total in the next year or two. Greenfield implementations take 5–8 months, with the average taking around six months, and the implementation is carried out fully by Fiserv. Fiserv has an established training program for its clients, built around the "train-the-trainer" concept and split across two areas of focus: "Business & Functional" and "Technical."

#### Recommendation: Fiserv is a market follower

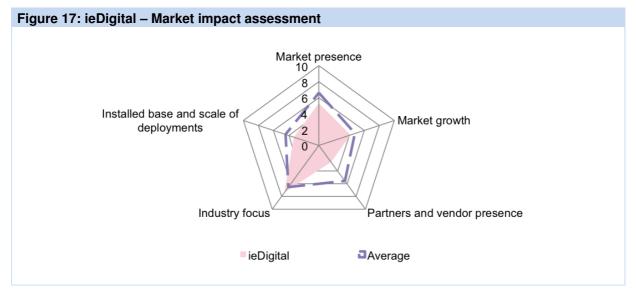
Fiserv provides a solid digital banking platform in the form of DigitalAccess, meaning that banks should consider it for shortlisting, particularly in its core markets.

# ieDigital

#### **Background**

ieDigital is a European single software—offering company headquartered in the UK. The company was founded in 1986 and maintains R&D centers in both its home market and Sri Lanka. Its digital banking platform, Interact, was first launched in 2013, with the latest version, version 5.2, released in April 2018.

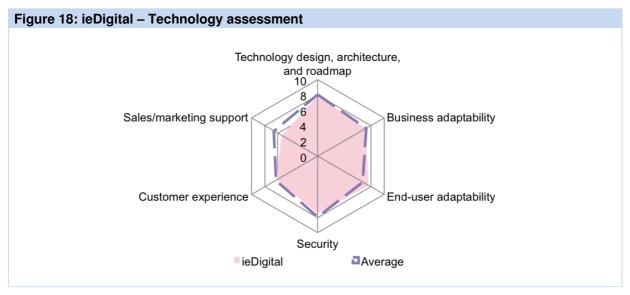
#### Market impact assessment



Source: Ovum

ieDigital is focused on the digital banking market, and it has established a solid position in the European market, although it has been expanding Interact's presence in Asia-Pacific in recent years. Globally, the company has an even spread across all tiers of financial institutions, but much of its recent growth has been among tier-1 banks.

#### **Technology assessment**



Source: Ovum

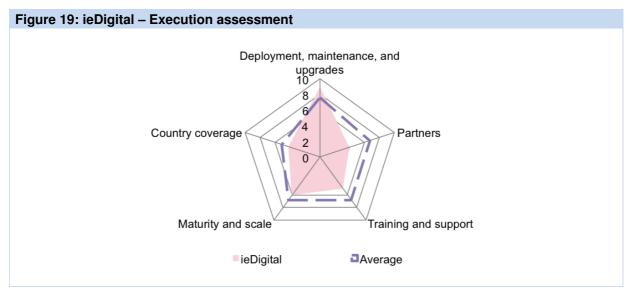
Interact offers financial institutions a full customer lifecycle product, from onboarding to "collections" and debt management – an area that few other players target and where ieDigital reports significant successes in recent years.

The platform uses customer device registration, two-factor ID including biometrics (supporting fingerprint, face and iris recognition, and voice authentication), device and server synchronization, and a remote wipe facility. One of ieDigital's simpler, creative measures in recent years has been the

use of emoji-only passwords as a mathematically more secure and easier to remember variation of traditional passcodes.

Customer experience and personal financial management is a strength area for Interact: the platform has been certified "Fairbanking Ready" by the Fairbanking Foundation, and one of ieDigital's clients received a four-star award for customer care. It includes a range of visualizations to help customers manage loans or debt repayments, for example, to simplify the process and offer basic guidance.

#### **Execution assessment**



Source: Ovum

Interact is deployed with a number of banks, especially in Europe and Asia-Pacific. The solution is currently available in a range of European languages. The largest deployment of the solution supports 2 million users and is proven to be capable of handling over 5,000 concurrent users. The vendor has one major support center, in the UK, which provides first-, second-, and third-level support for clients around the world.

#### Recommendation: ieDigital is a market challenger

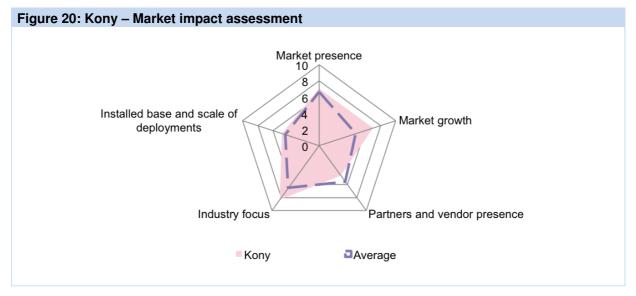
ieDigital provides banks with a digital banking platform capable of offering a set of tools that banks need, with a specialism in customer-centric banking. As a result, it is a market challenger.

# Kony

#### **Background**

Kony is a digital banking–focused company headquartered in the US. The company was founded in 2007 and maintains R&D centers in both its home market and India. Its digital banking platform – Kony DBX – was first launched in 2015, with the latest version, version 4, released in June 2018.

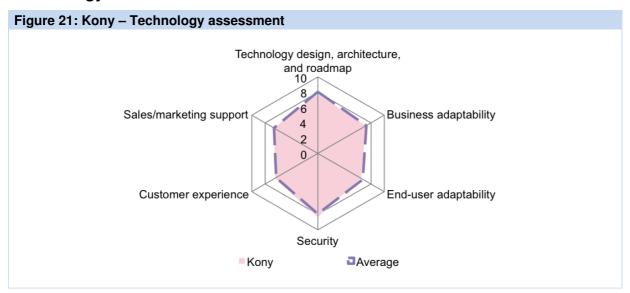
#### Market impact assessment



Source: Ovum

Kony has a strong focus on the digital banking market, and it has developed a solid position in the North American market, although it has an established global footprint. In recent years, Kony has recorded strong growth figures due to a number of contract wins, particularly in North America and Asia-Pacific. Globally, the company has clients in all tiers of financial institutions, with a significant presence among those in tiers 3-5.

#### **Technology assessment**

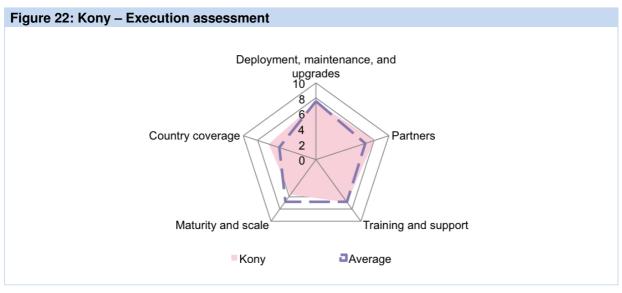


Source: Ovum

Kony DBX is an omnichannel digital banking platform, which comes with high levels of customizable experience and a dedicated Direct Marketing dashboard to support marketing campaigns and improve customer retention through three layers of analytics. On average, clients deploy a platform that is 80–85% based on out-of-the-box modules, but Kony DBX actively supports the use of third-party plugins to offer enhanced geo-marketing and AR features, for example.

The platform includes an intelligent voice-activated or text-driven virtual assistant to help customers with account and transaction enquiries, requests to find ATMs and branches, card control actions, money transfers and payments, and analysis of spending patterns. Part of Kony's roadmap includes plans to further enhance the AI capabilities on offer through the platform.

#### **Execution assessment**



Source: Ovum

Kony DBX is already deployed with a large number of banks worldwide, with a strong presence in the Americas and Asia-Pacific. The solution is currently deployed in a range of languages, with support provided for English, Spanish, French, simplified Chinese, Arabic, Hebrew, German, Italian, Indonesian, Vietnamese, Filipino, Flemish, Malay, and Portuguese. The largest deployment of the solution supports 2.7 million users and is proven to be capable of handling 250,000 concurrent users. The vendor has support centers in India, Australia, and Florida, US, and has a dedicated training team that runs a certification scheme to assist in client platform management. Kony also recently acquired the innovation subsidiary of Umpqua Bank, which adds strong digital engagement capabilities.

#### Recommendation: Kony is a market challenger

Kony provides banks focused on modern, highly adaptable technology with a strong digital focus and approach from its mobile expertise, with significant recent investment to create a broader digital banking platform. As a result, it has recorded strong growth figures in recent years, and is a market challenger that banks should actively shortlist when selecting a digital platform provider.

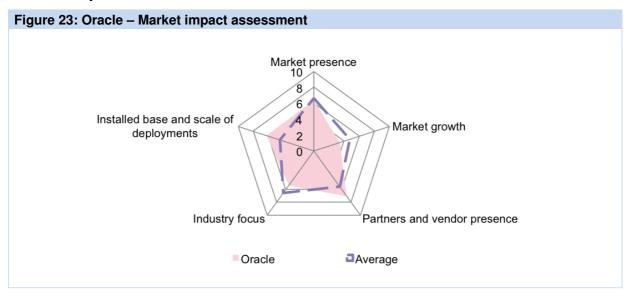
#### **Oracle**

#### **Background**

Oracle Corporation, a US-based enterprise application provider with more than \$39bn in revenue, is one of the largest providers of databases, decision support tools, and enterprise business applications in the world. The company has a strong industry-specific portfolio for banking, which includes core banking, pricing and billing, analytics, and investor servicing. Its digital banking platform consists of two components: the Oracle Banking Digital Experience, launched in 2015, and Oracle Banking APIs.

The scores in this ODM focus on the Oracle Banking Digital Experience, its core platform, but due consideration has been given to the additional value from Oracle Banking APIs, which provides banks with a range of out-of-the-box APIs for nonfunctional capabilities such as access, consent, entitlement, and identity across retail, corporate, and SME banking and payments.

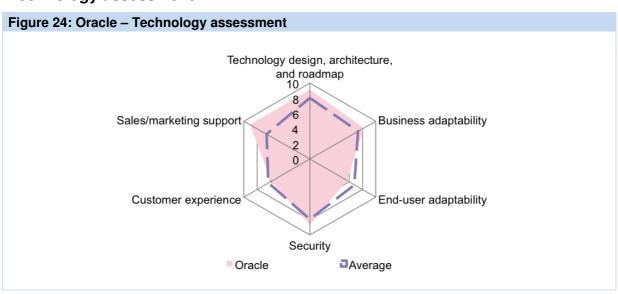
#### Market impact assessment



Source: Ovum

The investment made into Oracle Banking Digital Experience has shown that the company is serious about its digital banking platform and that it considers the market to be an important opportunity. Oracle Banking Digital Experience has built a strong client base, and though it is particularly strong in Asia, it has seen steady growth across the Middle East, Europe, and Africa in recent years. Oracle's financial services offerings have been deployed widely around the world, and the company has a considerable presence across the globe as well as an excellent partner network.

#### **Technology assessment**



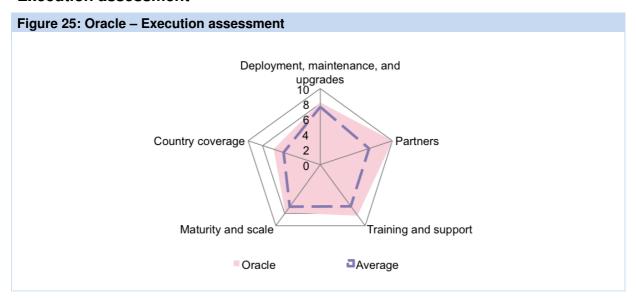
Source: Ovum

Oracle Banking Digital Experience provides an open standards—based architecture with separate presentation, business services, and integration tiers. Business services are channel-agnostic, and they can be reused across all channels. The user interface is responsive, built with HTML5 and CSS3, and adaptive to different form factors. Banks can also modify the provided interfaces. The platform uses an Oracle Banking Digital Experience UX that has been built with Oracle Java Extension Toolkit, which banks can use to further modify the UX.

Oracle Banking Digital Experience provides a strong degree of multilayered security, incorporating a variety of OTP and secure-code features and integrating with a range of third-party biometric authentication capabilities. Likewise, Oracle Banking Digital Experience is part of a larger cross-industry digital Marketing Cloud solution, which allows targeted marketing messages in the form of banners and offers by integrating with Oracle's targeted marketing application and any third-party marketing applications consuming its APIs.

The roadmap for Oracle Banking Digital Experience includes a wide range of new features that will further enhance the platform, particularly in the further use of APIs, AI-based analytics, and blockchain, for example.

#### **Execution assessment**



Source: Ovum

Oracle Banking Digital Experience has been available since 2015, meaning that the platform is still a relatively new entrant in the market, although it builds on Oracle's established position with earlier platforms. The Oracle Banking Digital Experience platform has built a strong presence in regional markets, particularly Europe, Asia, and the Middle East, and is moving toward having a complete global footprint. Oracle has a large partner network and excellent training and support capabilities.

#### Recommendation: Oracle is a market leader

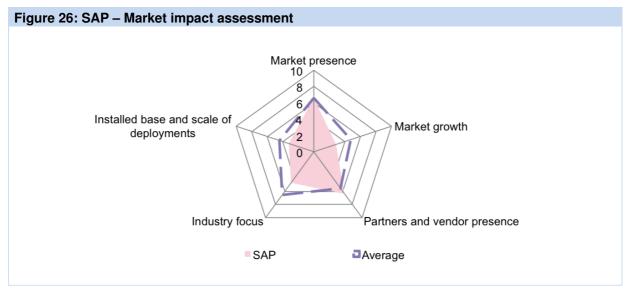
Oracle Banking Digital Experience is demonstrating the clear potential that was identified in Ovum's 2016 ODM as a solid platform at the top end of the market. The company has plenty of experience and strong global coverage, making Oracle Banking Digital Experience one of the leading platforms in the market.

#### SAP

#### **Background**

SAP is a Germany-based enterprise application software provider with €23.5bn in revenue, and one of the top providers of enterprise resource planning (ERP) applications. Financial services are among the company's main industry streams (covering both retail banking and insurance). It launched its first online banking platform in 1998. Since 2010, SAP has gained new mobile and online banking offerings, which it has since merged into one digital banking offering. In 2018, it streamlined its portfolio and launched its C/4HANA Customer Experience Suite, which includes a number of application components providing an omni-commercesolution.

#### Market impact assessment



Source: Ovum

As a provider of banking software, SAP has an especially strong presence in Europe. It has experienced solid growth in the digital banking platform market in recent years, and the platform is currently deployed in 150 countries worldwide. As a large software provider, SAP has a very well-established network of partners, some of which also engage in digital banking implementations.

#### **Technology assessment**

Technology design, architecture, and roadmap

Sales/marketing support

Customer experience

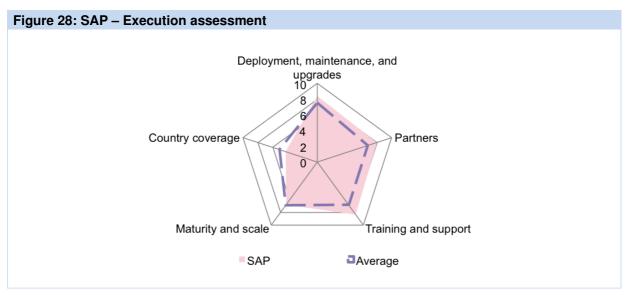
SAP

Average

Source: Ovum

SAP's Omnichannel Digital Banking is a multilayered platform with the capability to serve a number of different devices and channels. It integrates with the core system with an integration layer that serves as a single point of integration for all devices and channels. The integration architecture uses webservices standards and standard APIs. SAP NetWeaver Process Integration is the central integration hub mediating between different interfaces and technologies. This is also the main way for banks to integrate third-party applications, although a number of other APIs can also be used. The banking capabilities are also complemented by Hybris, which has strong customer experience, sales, and analytics capabilities.

#### **Execution assessment**



Source: Ovum

SAP's digital banking platform offering is relatively mature, with a number of deployments around the world. The solution is available in a number of different languages, including Arabic, Japanese, Portuguese, German, and Chinese. The platform also supports multi-entity deployments; its largest

number of separate entities is nine. The solution's largest live deployment supports 3 million customers. A greenfield deployment takes around 6–9 months, and SAP releases new upgrades every 12–18 months, but the company has plans to release support packages with new functional enhancements once a quarter. As a large multinational company, SAP has a very well-established network of partners, some of which also work with digital banking platform implementations, and a training program for its partners and clients. The company also has very good support capabilities and a presence across the globe.

#### Recommendation: SAP is a market challenger

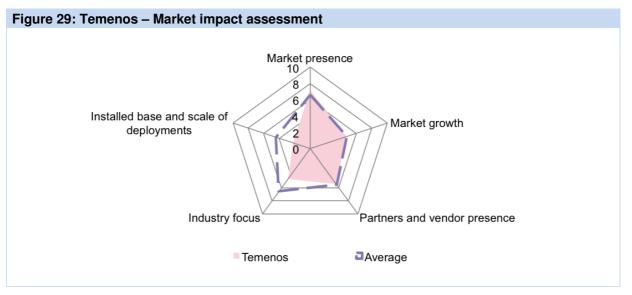
SAP provides a robust digital banking platform that can equip banks with the tools and capabilities they need to succeed. SAP's digital banking offering has particular potential in the customer experience and sales area.

#### **Temenos**

#### **Background**

Temenos is a Switzerland-based banking platform provider with \$737m in revenue and almost 5,000 staff. The company entered the online banking market in 2003, and it launched its latest version, Temenos Front Office Suite, in 2018. This platform is built around Temenos UXP, its core module, which underwent a major upgrade with the launch of version 6.0 in September 2017.

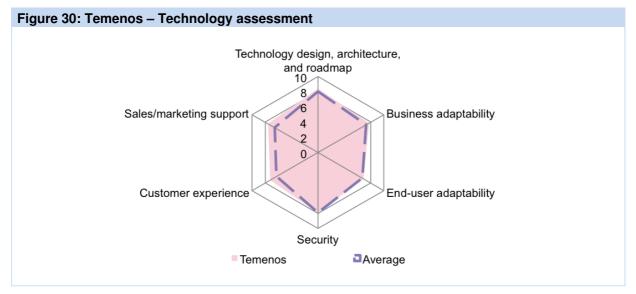
#### Market impact assessment



Source: Ovum

With the enhancement and expansion of Temenos Front Office Suite, the company has further demonstrated its commitment to digital banking platforms, although it reports that roughly 90% of its digital banking clients also use its core banking solution. Temenos as a product company has a well-established partner network, and it also has a considerable global presence.

#### **Technology assessment**



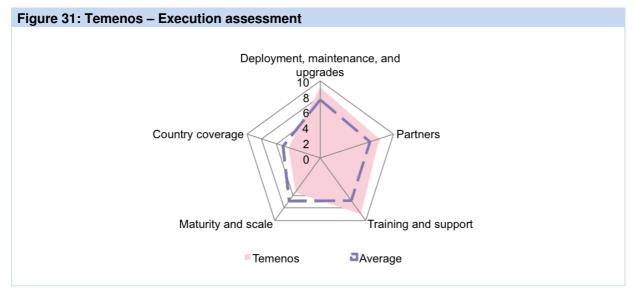
Source: Ovum

Temenos UXP underpins the company's digital banking platform offering. Channel solutions can be implemented as widgets or components that are reusable across channels and contain individual banking functions, such as bill pay. Temenos provides a product builder that allows business owners to create and design products across all channels. Out-of-the-box channel solutions are provided for retail, corporate, and private banking. The digital banking platform can be integrated with the standard set of integration connectors (SOAP, REST, XML, etc.) with any core banking system, and the solution can also be delivered fully integrated with Temenos' core banking system.

Customization by banks is enabled with Temenos's integrated development environment, which allows the mapping of data from back-end and core systems and also carries over styles. Further customization is enabled by Temenos's online store, MarketPlace, which has more than 60 widgets and components from Temenos and third parties (known as MarketPlace providers).

Temenos provides an integrated analytics and reporting platform, Temenos Analytics, which collects data from the platform that can then be viewed by the bank's users via a management information dashboard. The platform has also a number of other applications for different areas of the bank.

#### **Execution assessment**



Source: Ovum

Temenos' solution has been implemented by banks around the world, and is deployed in English, French, Spanish, and Burmese. The platform also has a strong multi-entity capability, with one client covering 15 different countries with the product. The largest client deploying Temenos UXP has 16 million customers, and the platform is capable of supporting thousands of concurrent live sessions. A greenfield implementation normally takes around 6–9 months, and maintenance updates take place every 1–2 years or when critical issues emerge. A new version is usually released every 2–3 years, and point releases occur every 6–12 months. Temenos has a well-developed training capability for its clients and partners, as well as a certification program. Partners working with Temenos on systems integration and feature development include Accenture, Deloitte Digital, Cognizant, and Aspire Systems. Temenos provides support for its clients from 14 support centers across the world.

#### Recommendation: Temenos is a market leader

With Temenos UXP, banks gain capabilities that equip them for the digital economy. Based on a user experience platform, the product has a strong underlying foundation that Temenos has developed, which will probably see further advancements in the near future. Ovum recommends that banks shortlist Temenos when searching for a competitive digital banking platform solution.

# **Appendix**

# Further reading

2019 ICT Enterprise Insights in the Retail Banking Industry, ENV004-000018 (November 2018)

Ovum Decision Matrix: Selecting a Customer Engagement Platform, 2018–19, INT001-000088 (August 2018)

Ovum Decision Matrix: Selecting an Enterprise Mobile Application Development Platform, 2018–19, INT003-000133 (April 2018)

Ovum Decision Matrix: Selecting an Anti-Financial Crime Solution, 2017–18, ENV004-000002 (December 2017)

#### **Authors**

Matthew Heaslip, Associate Consultant, Financial Services Technology Daniel Mayo, Chief Analyst, Financial Services Technology

daniel.mayo@ovum.com

# **Ovum Consulting**

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ovum.informa.com

askananalyst@ovum.com

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