Quadrant Knowledge Solutions

Banking, Financial Services, and Insurance

SPARK Matrix™: Digital Banking Services, 2023

Market Insights, Competitive Evaluation, and Vendor Rankings

August, 2023

TABLE OF CONTENTS

Executive Overview

This research service includes a detailed analysis of global digital banking services vendors' market dynamics, major trends, vendor landscape, and competitive positioning analysis. The study provides a competition analysis and ranking of the leading digital banking services vendors in the form of the SPARK Matrix™. This research provides strategic information for service vendors to better understand the market supporting their growth strategies and for users to evaluate different vendors' capabilities, competitive differentiation, and market position.

Market Dynamics and Overview

Quadrant Knowledge Solutions defines Digital Banking Service as:

"Digital Banking is the automation of traditional banking capabilities offered through a platform that enables banks in driving digital transformation journey to provide a seamless and convenient banking experience through digital channels, such as websites, and mobile apps. Digital Banking Services include the implementation and deployment of various banking services that are offered alongside the platform including digital onboarding, transaction monitoring, open banking, loan origination and card issuance, wallets and payments, retail and corporate banking, and regulatory and compliance. It leverages advanced analytics, AI/ML, and robotic process automation to gain insights, enhance risk management, improve customer engagement, and optimize end-to-end processes."

The changing customer expectations, rising demand for convenience, and technological innovation have accelerated the banking industry's transformation from traditional to digital banking. The digital transformation market has evolved from a basic online presence to a comprehensive integration of advanced technologies that reshape industries, customer experiences, and business strategies. Organizations are increasingly gravitating toward the establishment of comprehensive digital ecosystems, achieved by consolidating digital banking services within a banking-as-a-service framework. This model empowers banks to provide streamlined and secure customer interactions. As a result, providers of digital banking services are making substantial investments in the requisite technologies to facilitate digital transformation. This includes the provision of integrated services, ensuring customer ownership, and facilitating a smooth and cohesive user experience.

Digital banking encompasses a broad spectrum of financial services conducted through online platforms, mobile apps, and other digital channels, allowing customers to fetch account information and manage their finances. It is built on open architecture and an API-first approach that enables the integration of third-party applications and open banking services. It also leverages advanced analytics and AI-driven tools for fingerprint, facial, and voice recognition to identify fraud detection, provide seamless customer onboarding and e-KYC, and enhance security to authenticate the customer's identity. Additionally, RPA empowers banks to automate repetitive tasks and facilitate personalized offers. These technologies

are reshaping the realm of digital banking services, allowing financial institutions to provide innovative and convenient offerings, thereby gaining a competitive edge while upholding security and compliance standards.

Digital banking services help organizations achieve digital transformation by utilizing banking services that enhance and restructure their fundamental banking system, thus resulting in an enhanced customer experience. It increases accessibility to the customer by enabling 24/7 access to accounts and services, thereby reducing operational costs. Digital transformation allows banks to introduce innovative financial products and services, such as digital wallets and AI-driven chatbots catering to the changing customer needs. It also enables banks to offer personalized recommendations and financial insights tailored to individual customers, thereby improving customer service efficiency and providing agile decision-making.

Amidst rapid global digitalization and technological advancement, coupled with rising customer expectations, the focus of digital banking undoubtedly lies in delivering a seamless experience across diverse channels. This enables customers to effortlessly transition between online platforms, mobile apps, social media, and even in-person interactions. Digital banking entities are evolving into all-encompassing financial ecosystems, extending beyond mere banking services to forge partnerships with sectors like insurance, wealth management, and retail. Furthermore, the integration of advanced data analytics and AI is set to assume a pivotal role in furnishing hyper-personalized banking encounters. These enhancements will significantly increase convenience and accessibility for users. Hence, to attain an all-encompassing banking experience, providers of digital banking services should prioritize the refinement of the Banking-as-a-Service model. They should also harness advanced technologies to craft APIs that seamlessly fuse core banking functionalities with an array of financial services. This integration can be effortlessly deployed across numerous digital channels for enhanced coherence.

Quadrant Knowledge Solutions' SPARK Matrix™: Digital Banking Service, 2023 research includes a detailed analysis of the global market regarding short-term and long-term growth opportunities, emerging technology trends, market trends, and future market outlook. This research provides strategic information for technology vendors to better understand the existing market, supporting their growth strategies, and for users to evaluate different vendors' capabilities, competitive differentiation, and market position.

The research includes detailed competition analysis and vendor evaluation with the proprietary SPARK Matrix™ analysis. The SPARK Matrix™ includes ranking and positioning of leading Digital Banking Service vendors with a global impact. The SPARK Matrix™ includes an analysis of vendors, including Accenture, Aspire Systems, Atos, Birlasoft, Capgemini, CGI, Cigniti, Cognizant, Comarch, DXC Technology, Endava, Fujitsu, GFT, HCL Technologies, Infosys, Itransition, LTI Mindtree, Maveric Systems, Mphasis, NTT Data, Persistent Systems, Quinnox, Softtek, Sopra Steria, TCS, Tech Mahindra, Tietoevry, Virtusa, Wipro, and Zensar.

The following are the key capabilities of digital banking services:

- **Digital Onboarding:** Digital banking service providers offer a comprehensive digital customer onboarding framework that facilitates a seamless end-to-end onboarding process. This includes assisting customers in selecting the right products, providing product information, guiding them through the application process, and finalizing agreements. The framework seamlessly integrates with KYC procedures, customer identification, and credit checks to ensure a frictionless experience. It eliminates the need for extensive documentation and the issues associated with paper-based documents by allowing banks to accelerate onboarding through automated document submission and verification, e-signature, due diligence, and intuitive self-service. Overall, digital onboarding helps banks reduce the processing cost, leads to faster application processing and quicker access to banking services, improving customer satisfaction and gaining customer loyalty.

- **Transaction Monitoring:** The digital banking service providers develop, deploy, and implement real-time transaction monitoring, financial event monitoring, fraud monitoring & analysis solutions. The solution leverages a range of cutting-edge technologies, including robotics, AI, ML, natural language processing (NLP), and text mining to identify transaction patterns, and customer behavior, and trigger alerts with deviations in the patterns. Transaction Monitoring allows banks to identify and address potential risks associated with money laundering, fraud, and other financial crimes and safeguards customers' funds and personal information. These technologies are harnessed to develop robust solutions to enhance the effectiveness and efficiency of financial crime prevention.

- **Loan Origination and Card issuance:** Digital banking service providers extend assistance for the entire loan origination process and card issuance. This includes automated activation, configuration, and post-issuance management, effectively streamlining the entire lending lifecycle. This comprehensive approach covers tasks ranging from initial loan setup through post-closing activities and servicing, all the way to efficient default management. It leverages digital technologies including analytics, intelligent automation, automated underwriting, credit assessment algorithms, and compliance checks. These technologies enable clients to benefit from online loan origination, efficient loan tracking, and seamless phygital (physical + Digital) interactions, combining physical and digital interactions. It streamlines and enhances the lending process, delivering efficient, transparent, and customer-centric experiences while ensuring regulatory compliance and effective risk management. Additionally, it also offers an end-to-end solution for non-performing loan prevention and default management services.

- **Wallets and Payments:** Digital banking service providers support banks in developing and implementing digital payment solutions including mobile payment, and contactless payments alongside integration with emerging technologies like blockchain and cryptocurrency. Wallets and payment solutions are constructed to align with SWIFT messaging and the ISO 20022 global regulation for financial data, while also supporting cross-border instant payments. Furthermore, they encompass a diverse array of functionalities, encompassing issuance, instant payments, account-to-account transactions, open finance, cash management, and virtual accounts. This solution facilitates the modernization of payment systems by empowering cloud-based payment processes, facilitated through API-ready cloud-native frameworks. Additionally, it introduces a cohesive payment acceptance framework, ensuring a seamless and unified system for receiving payments through various channels.

- **Omnichannel Experience and Support:** Digital banking service providers support banks and FIs in delivering end-to-end seamless banking experiences across all channels, platforms, and devices by designing and developing omnichannel solutions to ensure consistent customer experience. They assist in personalizing banking processes

from a customer perspective across retail, corporate, and other banking areas. Digital banking services provide insights regarding customer behaviors, needs, and trends that help banks create highly personalized engagements. An omnichannel experience helps banks achieve higher customer acquisition and retention while delivering better service. Vendors also present omnichannel portals, equipping customers with self-service capabilities and offering a comprehensive perspective of their complete journey. In addition to the omnichannel experience, omnichannel digitization guarantees compatibility across various screen sizes and device types, assuring convenience for the bank's customers and fostering uninterrupted and smooth customer experiences.

- **Consultancy:** A vendor consultancy service helps banks and FIs in designing the future roadmap of a digital solution, suggesting designs for delivery models, leveraging the digital disruptors, and driving the customer experience. Leading vendors offer assessment and strategy formulation as part of the consultancy, including UX strategy, assessment and benchmarking, user research, user journey transformation, and next-generation UX.

- **Customer Experience Services:** Vendors are offering enhanced visualization and analytical tools, reporting capabilities, self-service, live support, and user authentication to drive a better customer experience. These additional capabilities empower organizations to uncover fresh avenues for growth, introduce novel products, and revamp purpose-oriented omnichannel customer services. They play a pivotal role in streamlining marketing, sales, and service operations across the organizational landscape. Furthermore, these vendors extend customer experience services via chatbots, alongside fraud prevention and real-time translation functionalities, enhancing the overall customer experience.

Competitive Landscape and Analysis

Quadrant Knowledge Solutions conducted an in-depth analysis of major digital banking services vendors by evaluating their services, market presence, and customer value proposition. The evaluation is based on primary research with expert interviews, analysis of use cases, and Quadrant's internal analysis of the overall digital banking services market. This study includes an analysis of key vendors, including Accenture, Aspire Systems, Atos, Birlasoft, Capgemini, CGI, Cigniti, Cognizant, Comarch, DXC Technology, Endava, Fujitsu, GFT, HCL Technologies, Infosys, Itransition, LTI Mindtree, Maveric Systems, Mphasis, NTT Data, Persistent Systems, Quinnox, Softtek, Sopra Steria, TCS, Tech Mahindra, Tietoevry, Virtusa, Wipro, and Zensar.

Accenture, Cognizant, TCS, Infosys, Wipro, HCL Technologies, GFT, Tech Mahindra, NTT Data, LTI Mindtree, Tietoevry, and Sopra Steria are the top performers in the global digital banking services market and have been positioned as the leaders in the 2023 SPARK Matrix™ analysis of the digital banking services market.

Accenture provides a formidable array of digital banking services leveraging its proprietary Intellectual Properties (IPs), which comprise SynOps, myIndustry, AIP+, and myNav. These innovative IPs function as human-machine operating engines, hinging upon data, applied intelligence, and hybrid cloud environments with container and micro-server architectures. Their purpose is to facilitate comprehensive end-to-end transformation of banking operations. Moreover, Accenture's product offerings boast robust capabilities in data analytics, allowing users to harness the potential of AI-led digital transformation effectively.

Cognizant offers digital banking services that help accelerate the digitalization of banks across various banking segments, including retail banking, commercial banking, lending, and payments with automated front and back offices. Additionally, Cognizant Neuro Business Processes is a comprehensive suite of intelligent process automation solutions designed to assist banks in providing enhanced customer experiences and seamless customer experiences (CX).

TCS's BaNCS™ banking solution introduces cutting-edge cloud-native software-as-a-service solutions and applications, ensuring a smooth evolution within the financial services domain. It harnesses the power of AI-driven functionalities to deliver tailored banking experiences to customers and streamline operations, all while maintaining seamless integration with external systems.

TCS also brings forth a collection of proprietary Intellectual Properties (IPs) including Invoscan: an automated document verification tool, AI Studio: for advanced analytics, automated financial statement spreading, and a smart call center solution, covenant management capabilities, and personality radar technology. These IPs significantly contribute to the effective delivery and implementation of diverse digital banking services.

Infosys' comprehensive suite of digital banking products and services helps banks accelerate digital adoption. Infosys' Finacle platform offers a digital engagement suite and core banking solutions that enable banks to offer banking services such as lending, payments, and wealth management to their customers while simultaneously driving deeper customer engagements and digital operational excellence. Additionally, Finacle enables straight-through processing, driven by rules and APIs supported by an in-house RPA platform that seamlessly automates workflows and reduces costs.

Wipro's digital banking solutions encompass comprehensive end-to-end services for digital transformation. This encompassing suite includes the formulation of digital strategies, consultative guidance, readiness evaluations, and product implementation. Anchored upon the Digital Rig™ framework, Wipro's transformational offerings grant banks the flexibility to tailor and seamlessly integrate with their existing systems. The company further boasts proprietary Intellectual Properties (IPs) in domains like mortgage loan origination, eKYC, cybersecurity, and data discovery. In addition, Wipro nurtures a collaborative partnership ecosystem, inclusive of FinTech entities, crowdsourcing platform providers, and service design innovators. This dynamic collaboration enriches their capacity to deliver impactful capabilities within the realm of digital banking services.

HCL Technologies provides digital banking transformation through "HCLTech Novus Digital Banking" which enables seamless digital transformation by offering banking-as-a-service (BaaS) capabilities. It has a robust ecosystem of partners to deliver and implement various banking services and solutions in digital lending, onboarding, digital payments, reconciliation, and trade finance that are backed by advanced AI and cognitive capabilities.

GFT's digital banking services offer end-to-end solutions that enable the launching of cloud-based digital banking entities through its banking accelerators "BankLiteX" and "BankStart". The accelerators offer a modular end-to-end, scalable, omnichannel digital banking solution designed with a building block

architecture, pluggable components, and leveraging AWS cloud-native services. BankLiteX is a modern technology that implements an API-based Banking-as-a-service approach that drives a seamless service across third-party apps, microservices, and custom-made software to ensure efficiency across the business and improve customer engagement.

Tech Mahindra offers comprehensive banking capabilities and solution accelerators, supporting clients throughout their digital transformation journey. The flexible bank-in-a-box framework, along with a scalable and adaptable methodology, ensures swift execution and cost-effective solutions. It assists banks in envisioning, creating, and executing business models using digital enablers such as digital decoupled architecture, pluggable components, modern and scalable core systems, and cloud-native infrastructure. These technological advancements empower companies and elevate the overall customer experience.

NTT Data's platea banking accelerator plays a pivotal role in driving digital transformation, aligning digital solutions seamlessly with core banking, lending, card services, payments, and channel management strategies. Built on a cloud-native foundation, Platea Banking employs an event-driven real-time architecture, incorporating a dual API management strategy that effectively segregates third-party API exposure for enhanced security and efficiency. Additionally, the company's digital maturity model (DMM) framework maps the status of the bank's current digital channel and assists in developing a tailored action plan based on the integration of various digital technologies within the bank's existing system.

LTI's banking services provide a holistic and complete transformation journey, empowering BFSI customers to modernize their foundational systems and rethink their market approach. This comprehensive solution operates in the cloud, delivering intelligent services and risk management while harnessing data and insights to enrich personalization and elevate customer experiences. LTI has collaborated with providers of financial crime prevention solutions to introduce a cloud-native, integrated platform for core banking. This platform ensures a cohesive customer perspective and reduces the total cost of ownership (TCO) for institutions.

Tietoevry offers a banking-as-a-service (BaaS) model that accelerates banks' digital transformation journeys. Their banking solutions and services are constructed upon an open architecture and open APIs, leveraging the full range of Software-as-a-Service (SaaS) capabilities to drive the digitalization of core

banking value chains. Tietoevry's banking architecture, designed for the cloud and built on native principles, employs reliable, scalable, and resilient managed services to minimize downtime risks and enhance the customer experience.

Sopra Steria's digital banking services offer a complete digital transformation through a go-to-cloud approach with a human-centered design that streamlines the banking process from onboarding to a fully digital customer experience. It is built on open architecture and API-first that exposes the banking operations to an open ecosystem, thereby reducing the total cost of ownership and enhancing the overall customer omnichannel experience.

Vendors such as **Capgemini, DXC Technology, Atos, CGI, Persistent Systems, Fujitsu, and Mphasis** have been positioned as strong contenders. These companies provide comprehensive service capabilities and are rapidly gaining market traction across industries and geographical regions. These companies are also mindful of the upcoming market trends and have outlined a comprehensive roadmap to tap into future growth opportunities. Additionally, these companies mostly focus on catering to large and complex organizations.

The SPARK Matrix™ analysis categorizes **Endava, Virtusa, Softtek, Maveric Systems, Aspire Systems, Cigniti**, and **Itransition** as contenders, while **Zensar, Comarch, Birlasoft**, and **Quinnox** are positioned as aspirants in the market. These companies are experiencing rapid growth and are consistently striving to enhance their in-house capabilities by adopting enhanced services and offering diverse use cases. Additionally, they are planning to expand their market reach beyond their current offerings to explore new markets and attract new clients.

While most vendors may provide all the core functionalities, the breadth and depth of the capabilities may differ by different vendors' offerings. Users should evaluate digital banking service vendors that offer comprehensive capabilities and a broad range of out-of-the-box functionalities, core banking, open banking, cards and payments, lending services, financial crime prevention, omnichannel customer experience, microservice architecture, and integrated data management.

The vendors' ability to provide a genuinely open solution is crucial for improving the customer ownership experience. Furthermore, the vendor's customer value proposition may vary based on factors such as deployment ease, user-friendliness, price/performance ratio, and support for a wide range of use cases. These use cases include digital customer onboarding, end-to-end loan origination, core insurance, digital transformation, and payment monitoring.

The industry is currently undergoing rapid transformation, which compels digital banking service vendors to allocate greater resources to their R&D budget and continuously enhance their value proposition in order to meet future customer needs. Users should assess vendors that present a robust service strategy and a forward-looking roadmap aimed at elevating their features and functionalities, along with a Banking-as-a-Service (BaaS) approach that aligns with emerging transformational trends.

While numerous vendors concentrate on delivering competitive pricing and pertinent functionalities to cater to Small and Medium-sized Businesses (SMBs) and mid-sized organizations, larger enterprises demand more comprehensive and integrated services equipped with advanced capabilities. Vendors must demonstrate the ability to adapt to emerging trends, such as employing AI/ML for predictive personalization and implementing advanced analytics to enhance risk management.

Key Competitive Factors and Technology Differentiators

The following are the key competitive factors and differentiators for the evaluation of digital banking services vendors. While most of the vendors of digital banking services may provide all the core functionalities, the breadth and depth of functionalities may differ by different vendors' offerings. Due to the increasing competition in the market, vendors are improving their service capabilities and overall value proposition to remain competitive. Some of the key differentiators include:

Mobile-first Banking Service: Users should evaluate the vendors of Digital banking service providers who support a mobile-first approach that helps deliver and implements banking services and solutions via a mobile device. Prioritizing a mobile-first strategy enhances the customer experience by granting them the ability to conveniently access, monitor, and oversee their accounts using mobile devices. Simultaneously, this approach empowers banks and financial institutions to expand their customer base and cultivate brand loyalty through inventive services. Users leverage features such as real-time alerts, remote check deposits, and push notifications through this mobile-centric approach. Moreover, this approach benefits users by delivering personalized experiences and products through a mobile lens, fostering innovation, speed, simplicity, and engagement.

The sophistication of Banking-as-a-Service Architecture: Users should evaluate the vendors of digital banking services based on the architecture of their banking-as-a-service accelerators that simplifies the design and development of digital banks and reduces operational and implementation costs. It enables users to accelerate the digital transformation by providing all the building blocks needed to deliver digital channels, as well as the banking platforms by leveraging microservices, open APIs, and easy integration with third-party fintech solutions. Users should look for vendors who provide cloud-native and open plug-and-play architecture with pre-defined frameworks which offer a quick reconfiguration and balance between custom-made and third-party services that assist in enabling the modern core-banking capability and helps in the rapid transition from a legacy to a modern multi-core banking environment and achieves scalability, flexibility, and real-time processing.

Open Banking and Integration: Vendors within the digital banking services market offer an API-based Banking-as-a-Service approach that drives a seamless delivery of services across third-party apps, microservices, and implementation of custom-made software to ensure efficiency across the business. When considering options, users should prioritize vendors offering pre-integrated solutions that align with PSD2 regulations. They should also seek providers that enable end users to share financial data via open banking, thereby unlocking access to a diverse array of supplementary financial services and products. Open banking aggregation further empowers users by facilitating ecosystem integration and permitting them to share account data with Third-Party Providers (TPPs) whenever needed. Users should direct their attention towards vendors who adeptly orchestrate the digital landscape, enabling open banking functionality. These vendors should offer assistance with customized product suggestions, enhancing personal finance management, and expediting streamlined processes for loan or mortgage approval. Furthermore, users should prioritize vendors capable of integrating with a variety of top-notch technologies, delivering prebuilt and readily accessible integrations, and extending robust support for open APIs and related services.

Hyper-Personalization Service: Within the digital banking service market, vendors are introducing accelerators designed to enable hyper-personalization within the banking landscape. This form of hyper-personalization revolutionizes the user experience by customizing financial solutions and advice according to individual objectives. It provides real-time insights, individualized communication, and user-friendly interfaces. This strategy boosts convenience, effectiveness, and security, promoting well-informed decision-making through focused alerts and monitoring, all while adhering to stringent data privacy regulations. It empowers users to confidently navigate their financial journey, fostering a stronger bank-customer relationship and an enhanced sense of control over their financial future. Therefore, users are advised to evaluate the vendors who can deliver and implement services and solutions enabling hyper-personalization, which will help them in navigating their financial journey and enhance their sense of control over the financial future.

Maturity of AI and ML Models: Prominent vendors are progressively utilizing technologies such as AI, ML, and RPA to deliver banking services seamlessly. Users should evaluate vendors who deliver services to build AI/ML-backed core banking solutions and digital banking platform that allows users to entirely automate the digital onboarding process, micro-segment banking users for

enhanced customer experience, and enhance transaction monitoring by reducing false positives in fraud detection. Additionally, it includes predictive analytics and AI-driven chatbots and helps banks leverage data analytics and AI technologies to gain insights, enhance risk management, and improve customer engagement.

The Sophistication of Service Capabilities: Before making a purchase decision, users should conduct a thorough evaluation and weighted analysis of various digital banking services vendors based on their specific organization's needs and use cases. An organization's need for a key digital banking services vendor may vary depending on the industry vertical, consulting services, customer experience, and end-user size. Users should also look for digital banking service vendors with a track record of successful large-scale deployments and thoroughly examine the use cases that have already been deployed. Users should look for vendors providing holistic digital banking services with integrated technology such as AI, ML, and cognitive capabilities and enhancing banking services to cater to a wide range of industry-specific use cases. However, Companies that provide digital banking services may differ in terms of ease of development, deployment and usage, scalability, integration, analytics and reporting, and support for a wide range of use cases.

Industry Experience and Domain Knowledge: Users should evaluate vendors based on their specific domain knowledge to gauge their ability to provide basic service functionalities, consulting services and cater to a diverse range of industry-specific use cases. Furthermore, users should take into consideration the availability of cutting-edge technological tools like explainable AI, machine learning, blockchain, and other innovations that can enhance service capabilities. It's crucial for users to thoroughly assess vendors in terms of their provision of diverse process automation, data-driven transformations, and strategic third-party partnerships. These factors are pivotal for expanding service portfolios and delivering elevated customer experiences. Users are also advised to scrutinize vendors based on their track record, instances of customer success, capacity to foster innovation for compelling banking product creation, and the range of delivery models they offer.

Competitive Strategies and Use Cases: Users should evaluate digital banking services vendors based on their ability to provide industry-specific use cases such as digital customer onboarding, layered architecture, transaction monitoring for card fraud prevention, real-time payment infrastructure upgrades, card service processes for issuing and processing cards, dispute resolution support, card

production, and cash management. Users should also look for vendors who offer seamless integration, business and technical value, analytics, and automation, reporting capabilities, and research & development services. Furthermore, users with one or more specific requirements should evaluate digital banking services vendors based on their differentiating strategies, which include customized services, a multi-channel approach to increasing customer acquisition, security testing features, exclusive fraud experts, and a cloud-based platform. Users must carefully evaluate vendors who offer automation of various processes in order to improve stakeholders' experiences and business outcomes.

Integration of Orchestration and Automation: Vendors of digital banking services specialize in service orchestration and automation while integrating advanced technologies into organizations' platforms. Users should carefully examine vendors offering AI/ML technologies that assist users, analysts, and decision-makers prioritize, analyze, and respond to automated processes. Users should also select providers who can provide analytical tools for real-time reporting and automation while reducing time-to-market.

Partnership for Scalability: In collaboration with digital banking service providers and technology suppliers, hyper-scaling for deployment capabilities across on-premises and cloud platforms is being developed. The breadth of service capabilities and the adoption rate for up-scaling and down-scaling may differ between vendors. Users should look for a digital banking service provider who can meet scalability requirements for large-scale deployment, offers cloud-native core banking, ensures reusability through a pragmatic component model as well as meets industry-specific requirements for deep learning, analytics, and insights, as well as explore innovative opportunities and improve business performance.

Vendor's Expertise and Domain Knowledge: Organizations should conduct a comprehensive evaluation of numerous digital banking service providers and vendors before making a final decision. Organizations need to assess vendors for their expertise and domain knowledge in comprehending the unique business challenges, use cases, industry nuances, and region-specific demands. Users should prioritize attributes such as user-friendliness, the breadth of service offerings, adaptability to dynamic market shifts and regulatory requisites, cost-effectiveness, and transparency. Additionally, organizations should consider a responsive service provider that promptly furnishes crucial information for informed decision-making. Users should seek a service provider with a track record of successful large-scale implementations and diligently scrutinize existing

case studies. This analysis should serve as the foundation for establishing best practices in digital banking services.

Vision and Roadmap: Users should evaluate each vendor's technology vision and roadmap by considering vendors that are constantly enhancing and innovating their value proposition in terms of providing digital banking services with comprehensive end-to-end banking services. Furthermore, users should evaluate vendors whose products can be customized as per the organization's KPIs. Leading vendors in the digital banking service market are also heavily investing in digital transformation. Organizations should carefully evaluate the vendor's existing capabilities along with their vision and roadmap to improve overall satisfaction and customer ownership experience to ensure successful deployment.

SPARK Matrix™: Strategic Performance Assessment and Ranking

Quadrant Knowledge Solutions' SPARK Matrix™ provides a snapshot of the market positioning of the key market participants. The SPARK Matrix provides a visual representation of market participants and provides strategic insights into how each supplier ranks related to their competitors, concerning various performance parameters based on the category of technology excellence and customer impact. Quadrant's Competitive Landscape Analysis is a useful planning guide for strategic decision-making, such as finding M&A prospects, partnerships, geographical expansion, portfolio expansion, and similar others.

Each market participant is analyzed against several parameters of Service Excellence and Customer Impact. In each of the parameters (see charts), an index is assigned to each supplier from 1 (lowest) to 10 (highest). These ratings are designated to each market participant based on the research findings. Based on the individual participant ratings, X and Y coordinate values are calculated. These coordinates are finally used to make the SPARK Matrix™.

Service Excellence	Weightage	Customer Impact	Weightage
Sophistication of Services: based on mode of service delivery	20%	Diversity of Client Base	25%
Sophistication of Services: based on banking function	25%	Market Presence	25%
Open Banking Readiness	15%	Proven Record	25%
Competetive differentiation strategy	8%	Customer Service Excellence	15%
Center of Excellence (CoE)	7%	Unique Value Proposition	10%
Data management and governance	10%		
AI, Machine Learning, Automation, and Analytics	10%		
Partner ecosystem	5%		

Evaluation Criteria: Service Excellence

- **Sophistication of Services based on mode of service delivery:** Evaluates the breadth and depth of services offered, such as consulting, technology implementation, customer support, analytics service, omnichannel experience, training resources, and security.

- **Sophistication of Services based on banking function:** Evaluates the breadth of functional aspects of Digital banking covered such as Digital Onboarding, transaction monitoring, open banking, accounts and fund management, personal finance solution, alerts and notifications, wallets and payments, loan origination and cards.

- **Open Banking readiness:** The ability that financial institutions, including banks and other entities to effectively implement and comply with Open Banking regulations and initiatives by having the necessary infrastructure and capabilities to share customer data securely and efficiently with third-party providers. Additionally, it also evaluates the ability to offer services like financial insights, product recommendations, personal financial planning, and customer dashboard.

- **Center of Excellence (COE):** Evaluates the extent of knowledge base, relevant experience & expertise of workforce, best practice expertise, customization capabilities, and utilization of innovative tools/templates.

- **Data management and Governance:** The ability to create a robust framework for managing data adhering to data governance principles. It evaluates the transforming, optimizing, and managing volumes of data effectively thereby improving operational efficiency, enhancing customer experiences, and ensuring compliance.

- **AI/ML automation and Analytics:** The ability to adopt AI and ML along with analytics and robotic process automation will lead to cost optimization of back and middle offices. It evaluates the deployment of pre-integrated AI services and capabilities as-a-services or collection of accelerators.

- **Competitive Differentiation Strategy:** Evaluation of the vendor's key USPs in the product offerings compared to the competitor's offerings in the global market. It is based on functionality, pricing, customer service, technology updates, and ease of deployment.

- **Partner Ecosystem:** Evaluate the types and count of strategic partnerships with cross-banking and banking-specific platform vendors.

Evaluation Criteria: Customer Impact

- **Diversity of Client base:** Evaluation of the existing client base that a company caters to based on a broad spectrum of individuals, organizations, or groups with differing characteristics, needs, preferences, demographics, regions, and industries.

- **Market Presence:** The ability to demonstrate revenue, client base, and market growth along with a presence in various geographical regions and industry verticals.

- **Proven Record:** Evaluation of the existing client base from SMB, mid-market, and large enterprise segments, growth rate, and analysis of the customer case studies.

- **Customer Service Excellence:** The ability to demonstrate the vendor's capability to provide a range of professional services from consulting, training, and support. Additionally, the company's service partner strategy or system integration capability across geographical regions is also considered.

- **Unique Value Proposition:** The ability to demonstrate unique differentiators driven by ongoing industry trends, industry convergence, technology innovation, and others.

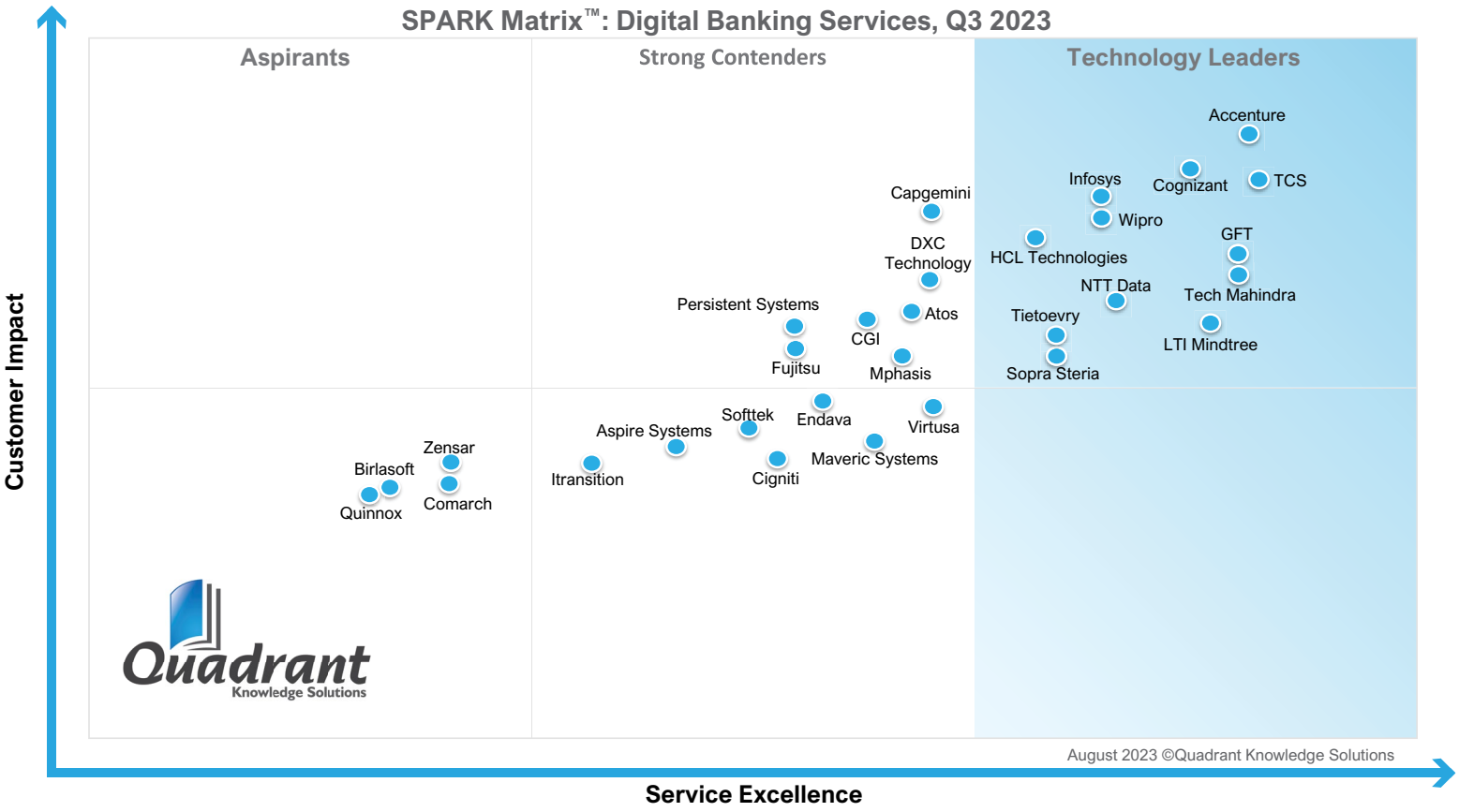
SPARK Matrix™: Speech Analytics, 2023

Strategic Performance Assessment and Ranking

Figure: 2023 SPARK Matrix™

Strategic Performance Assessment and Ranking)

Digital Banking Services Market



Vendor Profiles

Following is the profile of the leading Digital Banking Service vendor with a global impact. The following vendor profile is written based on the information provided by the vendor's executives as part of the research process. The Quadrant research team has also referred to the company's website, whitepapers, blogs, and other sources for writing the profile. A detailed vendor profile and analysis of vendor, along with various competitive scenarios, are available as a custom research deliverable to our clients. Users are advised to directly speak to respective vendor for a more comprehensive understanding of their service capabilities. Users are advised to consult Quadrant Knowledge Solutions before making any purchase decisions regarding Digital Banking Services and vendor selection based on research findings included in this research.

GFT

URL: https://www.gft.com/int/en/

Founded in 1987 and headquartered in Stuttgart, Germany, GFT is an IT services and IT consulting digital transformation pioneer that develops sustainable solutions based on new technologies including artificial intelligence and blockchain. GFT is a major provider of digital banking services that offers end-to-end solutions that enable the launching of cloud-based digital banking entities via its digital banking accelerator titled "BankLiteX" and "BankStart", a modular end-to-end, scalable, omnichannel digital banking solution designed with a building block architecture, pluggable components, and leveraging AWS cloud-native services that enable firms to create and fast deploy a cloud-based and provides a jump-start to a digital banking entity.

GFT's BankLiteX and BankStart provide a wide range of services, tools, and technology that offers functional aspects of digital banking such as regulatory and security compliance, open banking, digital onboarding, AML, KYC, transaction monitoring, end-to-end loan origination and loan processing, payment/e-payment, cards, and wallets. Additionally, GFT also offers a variety of service capabilities that include technology consultation, customer experience and support, technology implementation, of AI and advanced analytics, and security and compliance.

Analyst Perspective

Following is the analysis of GFT's offerings in the global Digital banking services market:

- GFT's flagship solution BankLiteX is architected to leverage native cloud services with reliability, scalability, and resilient managed services to reduce potential downtime. The solution provides numerous advantages, including pre-defined operating models, reduced operational costs and development costs, a unified repository for all projects, generating new revenue streams, faster integration, and testing, cost of ownership and service availability, full compliance, and regulatory requirements.

- BankLiteX is based on modern technology that implements an API-based Banking-as-a-service approach that drives a seamless service across third-party apps, microservices, and custom-made software to ensure efficiency

across the business. It is cloud and micro-server-ready with standardized state-of-art business processes that can be deployed in multiple countries with minimal changes. It helps banks comply with open banking regulations and leverage the opportunities presented by API ecosystems. Assist in API design, implementation, and integration.

- BankLiteX solution provides core-banking capabilities that offer seamless and intuitive digital onboarding user experiences, provides development services to build mobile and web applications specifically for digital onboarding, and assists banks in integrating identity verification and KYC solutions into their digital onboarding processes. It also helps banks in enabling mobile payments, contactless payments, and integration with emerging payment technologies like blockchain and cryptocurrencies to detect and prevent fraudulent activities, money laundering, and other suspicious transactions.

- BankLiteX solutions offer transaction monitoring capability under core-banking service that helps detect suspicious transactions and prevent fraudulent activities achieved by leveraging machine learning monitoring tools that use data from multiple sources to accurately identify suspicious client behavior across billions of records.

- BankLiteX solutions offer a single development hub that provides a unified repository for all projects and technologies and programming languages enabling safe collaboration across all teams such as UI/UX design, DevOps, and operational teams. The solution also provides business logic, a workflow engine, enabling solutions (smart contracts), and configuration management.

- GFT's BankStart is a full-stack accelerator for faster and easier deployment that simplifies the design and development of digital banks and reduces operational and implementation costs. It uses plug-and-play architecture with pre-defined frameworks that offer a quick reconfiguration and balance between custom-made and third-party services. It is compliant with the latest regulatory requirements across the cloud environment and operates on a pay-per-use basis optimizing the capital expenditure.

- GFT provides a Digital banking launcher (DBL) which is a cloud-native asset to enable the modern core-banking capability. DBL provides all the building blocks needed to deliver digital channels, as well as the banking platforms

to support the integration of the fintech ecosystem. It helps the user a rapid transition from a legacy to a modern multi-core banking environment and achieves scalability, flexibility, and real-time processing. DBL accelerates the transformation by providing a new core banking platform via the cloud achieved by leveraging microservices, open APIs, and easy integration with third-party fintech solutions.

- The company offers unlimited computing power with its High-Performance Computing (HPC) in the cloud. It allows users to perform any complex calculations particular to capital markets, insurance, payments, or Industrial IoT applications that require massive performance. It boosts the agility and optime the processing across cloud and on-premises by aligning processing cost to business success. GFT's open-source cloud landing zone and HPC accelerator also aid in setting up the TIBCO GridServer environment while simultaneously automating the organization's cloud framework's build and HPC grid builds.

- GFT's Technology and Artificial intelligence implementation services support banks in replacing outdated platforms with more up-to-date ones, enhancing system integration, increasing overall operational effectiveness, and helping banks implement cloud computing technologies and make their IT infrastructure more efficient. Additionally, it includes predictive analytics and AI-driven chatbots and helps banks leverage data analytics and AI technologies to gain insights, enhance risk management, and improve customer engagement.

- The platform's key competitive differentiators include strategic partnerships developed with AWS, Thought Machines, and Mambu.

- The solution offers a strategic partnership with "Thought Machine" to accelerate global banking transformation. The Thought Machine's "Vault" is a modern core banking and payments built natively for the cloud. The platform gives banks control to build and run any financial product or payment schemes from scratch giving the users full choice, flexibility, and power.

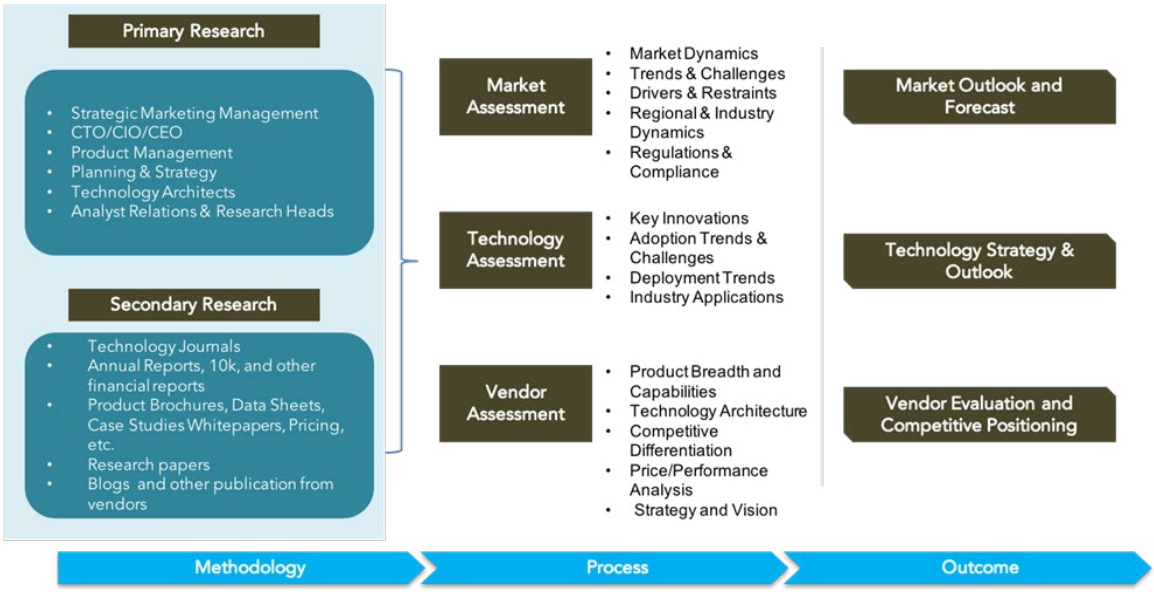
- BankLiteX, developed in collaboration with Amazon Web Services (AWS) helps users to reduce the time-to-market, de-risk the project, and optimize the return on investment (ROI). AWS provides a secure, scalable, and innovative platform in the cloud enabling new digital banks to meet regulatory requirements and develop new business models.

- In terms of geographical presence, GFT has its major presence in Europe, followed by APAC, North America, and South America. The company caters to a wide range of industry verticals, including banking, insurance, manufacturing, capital markets, and automotive. The company supports multiple use cases, such as layered architecture, digital transformation, core insurance, and digital onboarding, that supports local requirements and developments for the quick development of digital solutions for new and niche markets.

- Regarding the future roadmap, in terms of service capabilities, GFT is planning to provide retail wealth offerings, fully vertical managed services, digitalization of corporate wealth offerings, a fully integrated fraud system and single compliance repository for all brownfield banks, and integration of wallet-supporting digital currencies. Additionally, GFT is planning for geo-expansion by entering Eastern Europe and MENA.

Research Methodologies

Quadrant Knowledge Solutions uses a comprehensive approach to conduct global market outlook research for various technologies. Quadrant's research approach provides our analysts with the most effective framework to identify market and technology trends and helps in formulating meaningful growth strategies for our clients. All the sections of our research report are prepared with a considerable amount of time and thought process before moving on to the next step. Following is the brief description of the major sections of our research methodologies.



Secondary Research

Following are the major sources of information for conducting secondary research:

Quadrant's Internal Database

Quadrant Knowledge Solutions maintains a proprietary database in several technology marketplaces. This database provides our analyst with an adequate foundation to kick-start the research project. This database includes information from the following sources:

- Annual reports and other financial reports
- Industry participant lists
- Published secondary data on companies and their products

- Database of market sizes for different market segments
- Major market and technology trends

Literature Research

Quadrant Knowledge Solutions leverages on several magazine subscriptions and other publications that cover a wide range of subjects related to technology research. We also use the extensive library of directories and Journals on various technology domains. Our analysts use blog posts, whitepapers, case studies, and other literature published by major technology vendors, online experts, and industry news publications.

Inputs from Industry Participants

Quadrant analysts collect relevant documents such as whitepaper, brochures, case studies, price lists, datasheet, and other reports from all major industry participants.

Primary Research

Quadrant analysts use a two-step process for conducting primary research that helps us in capturing meaningful and most accurate market information. Below is the two-step process of our primary research:

Market Estimation: Based on the top-down and bottom-up approach, our analyst analyses all industry participants to estimate their business in the technology market for various market segments. We also seek information and verification of client business performance as part of our primary research interviews or through a detailed market questionnaire. The Quadrant research team conducts a detailed analysis of the comments and inputs provided by the industry participants.

Client Interview: Quadrant analyst team conducts a detailed telephonic interview of all major industry participants to get their perspectives of the current and future market dynamics. Our analyst also gets their first-hand experience with the vendor's product demo to understand their technology capabilities, user experience, product features, and other aspects. Based on the requirements, Quadrant analysts interview with more than one person from each of the market participants to verify the accuracy of the information provided. We typically engage

with client personnel in one of the following functions:

- Strategic Marketing Management
- Product Management
- Product Planning
- Planning & Strategy

Feedback from Channel Partners and End Users

Quadrant research team researches with various sales channel partners, including distributors, system integrators, and consultants to understand the detailed perspective of the market. Our analysts also get feedback from end-users from multiple industries and geographical regions to understand key issues, technology trends, and supplier capabilities in the technology market.

SPARK Matrix: Strategic Performance Assessment and Ranking

Quadrant Knowledge Solutions' SPARK Matrix provides a snapshot of the market positioning of the key market participants. SPARK Matrix representation provides a visual representation of market participants and provides strategic insights on how each supplier ranks in comparison to their competitors, concerning various performance parameters based on the category of technology excellence and customer impact.

Final Report Preparation

After finalization of market analysis, our analyst prepares necessary graphs, charts, and table to get further insights and preparation of the final research report. Our final research report includes information including competitive analysis; major market & technology trends; market drivers; vendor profiles, and such others.

Client Support

For information on hard-copy or electronic reprints, please contact Client Support at

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