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Building Transparency with API / Open Banking

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This document has been written by IBS Intelligence in collaboration with ERI, a major provider of IT solutions to the international private banking/wealth management space, as part of its contribution to the debate on the future of the industry.



01 INTRODUCTION TO OPEN BANKING AND PSD2

Financial institutions have long been accumulating precious data about customers and their transactions, without taking full, or in some cases any, advantage of the effective value. If this data is utilised right, financial institutions can narrow down to an individual customer's favourite restaurant or coffee-shop and this is just the start. Financial institutions also capture non-consumer data such as their meta-data related to cash machines, branches and their locations, the exact number of loans, mortgages, and different types of accounts and volumes of transactions. With all the information that the financial institutions capture, it would not be very difficult to analyse an individual customer and offer relevant products and services.



We started from a community banking perspective. Building an API infrastructure to connect to these community members was a sustainable solution to being digitally transparent and open. PSD2 regulations have brought in benefits to our API/Open Banking journey

- Head of Marketplace Banking, Leading Digital Bank, Germany



With an estimated 45-50% increase in access to additional customer data and 65-70% reduction in time to market, open banking is undoubtedly one of the recent buzz words in the Fin Tech industry. Open banking is expected to increase revenue by at least 20-30% for financial institutions, in the short-term. These statistics carry the Fin Tech industry towards innovation in banking and payment services, by simplifying it for customers, banks and other third-party service providers to connect with each other in a secure manner and capitalise upon the opportunity.

Open Banking is a platform with a network of financial institutions and services available through Application Programming Interfaces (APIs). Practically, open banking is all about securely unveiling a bank's data so as to incorporate a variety of financial services and so help customers with a better user experience and the most relevant choices. The driving force of open banking is the revised Payment Services Directive (PSD2), a European directive to boost competition and the variety of products and services in banking, including the payments space.

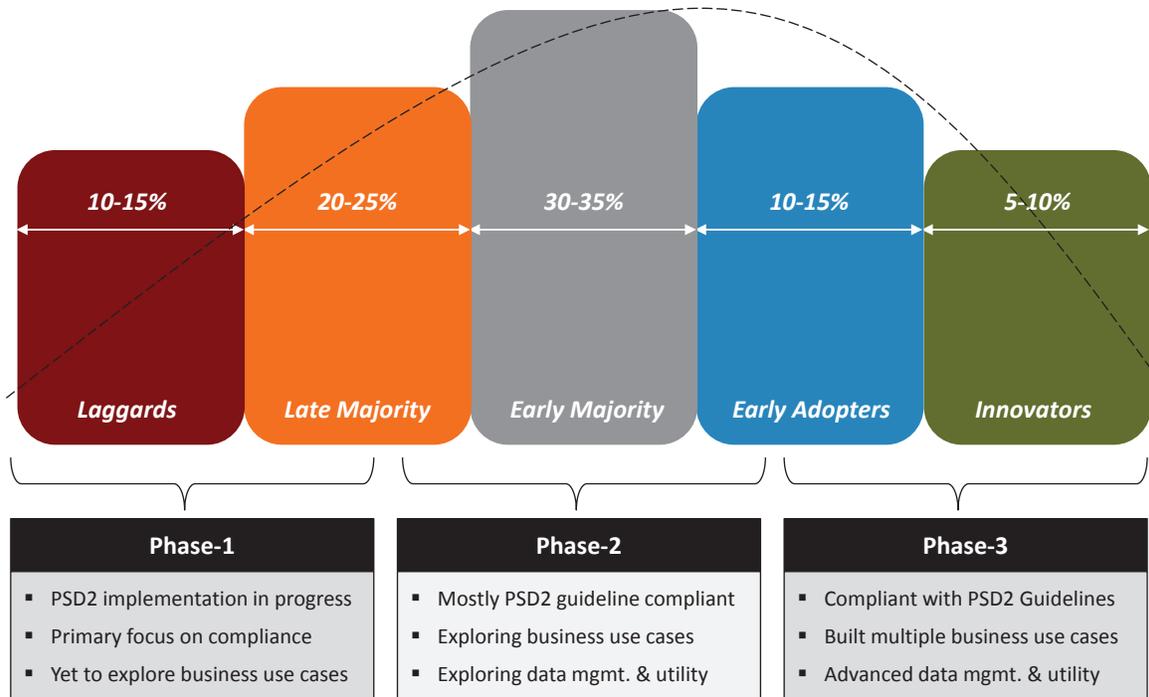
This whitepaper focusses on how financial institutions and banks, implementing open banking, are attempting to manage accumulated data, build transparency and yet preserve customer rights.

02 EMERGING TRENDS IN API / OPEN BANKING

European Banking Competitive Authorities (CAs) along with the regulatory bodies have been striving hard to strike a balance between creating a single market for customers and still being able to ensure secure services with respect to customer data and transactions. While the member states had to adopt this directive into their national law by 13th January 2018, the financial institutions are required to comply with the stated guidelines by September 2019 with respect to the services offered.

For adoption of any technology in an industry, there will always be the Innovators, Early Adopters, Early Majority, Late Majority and the Laggards. From the Open Banking perspective and specifically for the European region 10-15% banks can be placed in the Early Adopter category and 30-35% of banks can be placed under the Early Majority category. These numbers indicate that the industry has embraced open banking technology with open arms and that banks are moving from Phase-1 to Phase-2 and in turn, Phase-3 at a faster rate than initially expected.

Based on the current industry practices, key trends can be classified into a 3-phased approach towards Open Banking implementation.



Phase-1 | Compliance to PSD2 Regulatory Guidelines

PSD2 Regulatory guidelines include about 117 articles for Banks (ASPSPs) as well as Competent Authorities (CAs) which are mandatory requirements for a compliant bank. Features such as Access to Accounts (XS2A), Strong Customer Authentication (SCA) and Common Secure Communication (CSC), Real-time Fraud Analytics and Monitoring must be incorporated into banks' infrastructure. These services are to be made available to customers and third-party providers before September 2019. The guidelines also specify that there would be components for internal usage of Banks which must be mandatorily implemented, such as API Development environment, API Sandboxing for testing, etc.

From a system standpoint, open banking is implemented in broadly three possible ways

- **Modular Approach:** Existing applications and systems having PSD2 standards incorporated
- **Layered Approach:** Open Banking as a platform layer enabling legacy systems such as core banking and user accessible channels to conform to PSD2 guidelines
- **Hybrid Approach:** Based on the current system architecture and convenience, a hybrid of modular and layered approach is preferred

A keen observation here is that most banks prefer the layered approach to be deployed on a private cloud. The reason behind this is open banking is rightly seen as a scalable platform and cloud makes it easier to design, develop and integrate. In addition, cloud platforms reduce operational and maintenance cost and accelerate time to market. With open banking 'As a Service', financial institutions can focus on the strategic aspects of open banking rather than tactical ones.

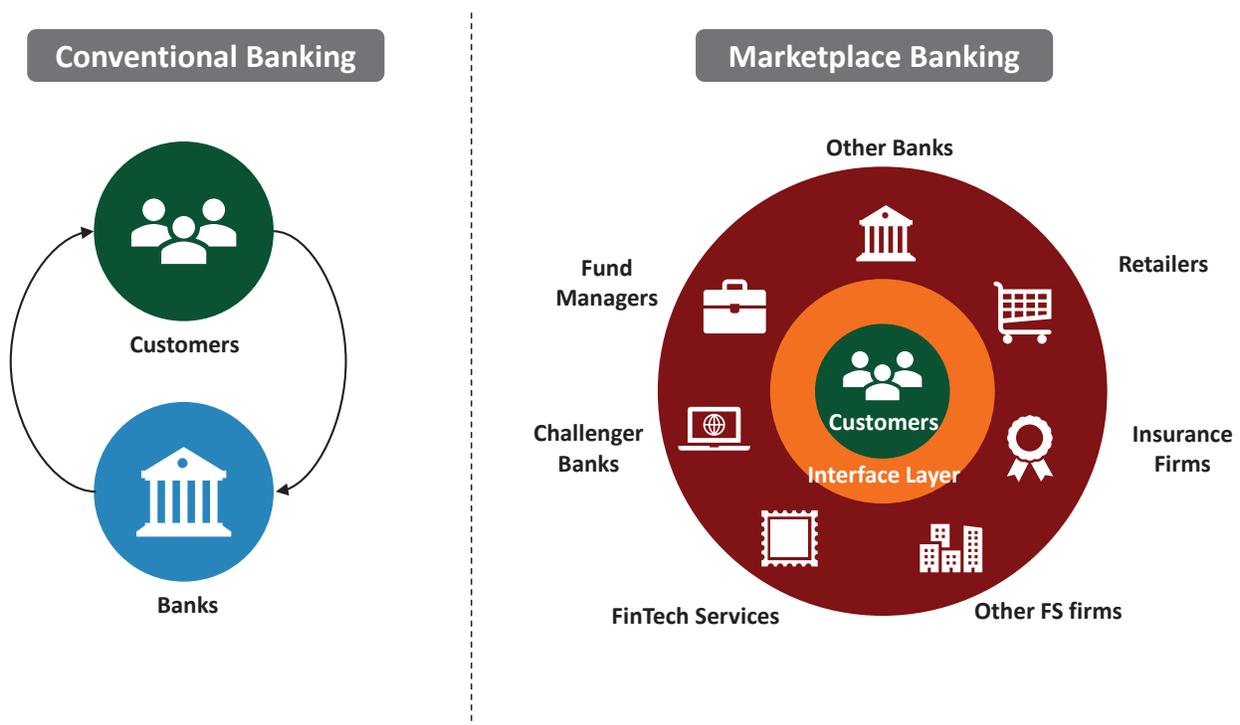
Phase-2 | Single Marketplace and Data Insights

The key measure of success for open banking as a platform is when a financial institution is successful in implementing Phase-2.

The current conventional banking practices are mostly closed, where systems are owned by the banks. The services offered by the banks are coupled with the limitations of the system. However, what is emerging is a marketplace where customers are at the centre and all products and services are designed around them. In marketplace banking, an ecosystem of service providers, which includes incumbent banks, FinTech firms etc., augments the traditional banking platform, thus creating a wider range of customised, value-adding products and services.

Banks now have an opportunity to portray themselves as a platform. By establishing an ecosystem of products and services, banks may be well placed to act as a one-stop-shop and provide a seamless and holistic customer experience.

Marketplace or open banking, by nature, is data-intensive. If banks must rightly place customers at the centre of their services, it is critical to understand customer behaviour, patterns and expectations. Hence, the need for data analysis and insights is crucial





Creating a marketplace, by offering all possible third-party products and services available to customers through APIs etc., is easy. However, understanding the needs of customers and optimising these services offered, is what financial institutions should target to make way for customers to access the marketplace



- Head of Marketplace Banking, Leading Digital Bank, Germany

Phase-3 | Data Sharing & Monetisation

Digital consent management lies at the heart of open banking. Digital consents can be obtained from customers and other businesses to innovate product and service offerings. By actively pursuing B2B data, banks and business have the following advantages:

- Creating awareness among business clients about potential benefits and value proposition
- Addressing potential changes to operating models and business models
- Considering options for industry collaboration to drive adoption of the open banking platform

The monetisation of this B2B data, while it seemed to be a bit far-fetched a year ago, is clearly what the industry is now working towards and is seen as being the end-game.

A typical trend that is observed amongst the late majority and laggards is that they have mostly adopted the 'wait and watch' approach and have been primarily focusing on compliance to PSD2 guidelines i.e. Phase-1. Mostly Tier-3 banks and some Tier-2 banks fall under this category.

Other Tier-2 banks and Tier-1 banks have already completed Phase-1 and have moved to Phase-2. These financial institutions will have a better advantage in terms of industry partnerships and in-turn data sharing and monetisation.

The Challenger banks and Tier-1 banks are the ones mostly between Phase-2 and Phase-3, who have implemented multiple business use cases and are working towards monetisation and evolving to a community-driven approach. These financial institutions are the 'go-to' guys and have the first mover advantage.

03 KEY FOCUS AREA | DATA TRANSPARENCY

The Need for Building Transparency

While it seems too obvious, every platform and disruptive technology has its own story to tell and comes with a unique set of challenges. For an open banking platform, these challenges have prompted the regulatory and other competent authorities to focus on the need for building transparency while keeping customers' interest and rights as one of the key focus areas. The following are some thought-provoking rationale for building data transparency for the end users:

- **Eliminating fake institutions and bad practices** top the list. The UK Financial Conduct Authority has created an Open Banking Register which includes a list of banks willing to participate and undergo scrutiny and approval processes. Similarly, PRETA S.A.S, a fully owned subsidiary of EBA Clearing, maintains a list of approved Third Party Providers (TPPs). With more such initiatives, the scrutiny and approvals are expected to get stringent enough to avoid first-level malpractice.
- **Maintain customers' focus** on open banking services rather than keeping the customer worried about how and where one's data is being used. One of the regulatory aspects of PSD2 is consent management. With consent management, customer rights are preserved, and the customers have complete privileges to choose the kind of information shared with Account Information Service Providers (AISPs) and Payment Initiation Service Providers (PISPs).
- **Reassurance to customers**, as banks or Account Servicing Payment Service Providers (ASPSPs) act as middle-men, in the form of an Application Programming Interface (API) provider. Banks or ASPSPs have a responsibility towards their customers. This is to ensure that there is a first level of support to customers, if need be, rather than leaving the customers with no-one to go to.

While clarity about the data and data security are conceptually different, from an open banking perspective, data transparency and data security have an overlap just as the regulatory aspects of PSD2/Open Banking and GDPR have an overlap for the implementing financial institutions.



The introduction of GDPR, prior to PSD2, has indeed benefited the financial institutions to build the foundation of transparency with respect to customer data management

– Head of Digital and Innovations, Leading Bank, Ireland



04 PRINCIPLES FOR BUILDING DATA TRANSPARENCY

Based on the documentation made available by the regulatory bodies and the industry best practices, principles for building transparency can be categorised as falling into three areas:

Open Data Guidelines

- **Standards for Building Data** | All API providers must adopt and maintain their APIs to agreed data and technical standards. These guidelines are issued by the Open Banking Implementation Entity (OBIE). These standards clearly define and focus on how to build the data and include swagger specifications for API, nomenclature, versioning, error messages, availability, performance, caching and use of meta data. These standards are monitored and updated regularly to optimise data accumulation.
- **Documentation & Publication** | PSD2 guidelines particularly mandate an implementing entity to document all the APIs and publish the documentation for public reference. Some of the aspects of documentation include the

description of the API, function calls and details of the data being shared. This API documentation, while it might seem technical, is the first step towards building transparency among the open banking community of service providers.

Data Sharing Policy Openness

- **Content Clarity** | The guidelines mandate an implementing entity to publish the data sharing policy to all its applicable actors (such as customers, third-party providers, partner ASPSPs etc.) in the simplest and most accessible formats possible. The content of the policies must be in clear and plain language, with visualisations where applicable for the end users to easily understand how and where the data is being captured and utilised. It is in the best interest of implementing authorities to share this information in the electronic formats to ensure coverage and accessibility.

Customer Enablement

- **Strong Consent Mechanism** | Payment Services Users (PSUs) i.e. customers are the key focus of open banking. A critical path towards winning customers' trust is to enhance transparency through this powerful tool of consent management. The industry best practices state that a set of questionnaires made available through channels accessed by customers is the easiest solution to consent management. PSD2 mandates that PSUs should be equipped with options to add/modify/remove consents that were previously defined. In addition to it, PSUs should be mandated to review their consents once every six months.

05 IMPLICATIONS FOR BANKS AND ASPSPs

Tier 1 and Tier 2 banks in the European region and across the globe have built dedicated departments, horizontally and (or) vertically, to cater to PSD2 and open banking needs. This clearly infers that these financial service providers treat open banking as a scalable and beneficial approach. For the challenger banks, which are built on the basic principle of open banking, it is a differentiating factor and the concept is very much one of their strengths. Amidst all the initiatives, the following are some of the implications for these financial service providers:



Investments in the Platform | Considering the phased approach which an implementing entity is adopting, the investments in the platform are significant, especially for a conventional bank to incorporate an open banking platform. Financial institutions understand that the Return on Investment (ROI) cannot be expected for at least 1-1.5 years from the time of implementation depending on how fast the organisation is ready to evolve. From a financial perspective, there would be a reduction observed in non-interest income component, with system expenses and operating expenses rising at least in the first 1-2 years.

Tracking and Monitoring Regulatory Guidelines | The challenges and intricacies behind open banking are constantly evolving, which are resulting in amendments to the regulatory guidelines. In this case, the Regulatory or Compliance departments are regularly tracking the guidelines, understanding its impact, and translating them into actionable items for the financial institutions. Failure to comply with

changing regulatory aspects is associated with heavy monetary and reputational loss.

Enhancing Expertise / Know-How | Financial institutions, either through an in-house SME or through external consulting, have been exploring ways to handle the captured data, such that there is optimum utility of data to better serve the customers and enhance transparency. Financial institutions are creating a new position of Chief Data Officer to build their expertise. The Chief Data Officer's responsibility is to recommend optimal utilization of information as an asset, with respect to data processing and analytics.

Creating Internal & External Awareness | The financial institutions will have to ensure that their internal and external customers are aware of the developments and their implications. It is an extensive investment, with respect to time and effort, to bring all aspects (System, People, Process & Technology) of a financial institution to be open banking ready. The financial institutions have been training their internal customers (Staff) across its verticals to ensure people readiness is checked. In parallel, financial institutions are taking a step towards conducting webinars and forums for their retail and corporate customers in order to enhance awareness about the changing process and its implications for their data.



A key aspect that is over-looked, while implementing API/Open Banking is the 'people readiness'. For a conventional bank in the European region to initiate its open banking journey, it must have its internal customers (employees) imbibe the intricacies of API infrastructure and get all the processes around it right

- Thought Leader and API/Open Banking Evangelist, Netherlands



Demand for Stronger Analytics Platform | One of the key success factors for a successful open banking platform lies in data management and hence the requirement for a strong analytics platform. The Tier 1 banks and the Challenger banks naturally have an upper hand as they have collaborated with technology solution providers, to build strong analytics platforms. On the other hand, the rising demand for analytics platforms has motivated suppliers to evolve themselves into building stronger off-the-shelf analytics and reporting platforms.

06 CONCLUSION

Open banking is not only widely accepted in the European region but also in other geographies such as Australia, East Asia, US and Canada with some of the leading banks implementing open banking as a platform. The regulatory authorities of these Non-European countries are drafting guidelines, in-line with PSD2, to ensure implementation of a regulated and evolving platform.



● Geographical representation of areas where API / Open Banking is actively pursued

With respect to technology adoption, a significant percentage of the banks are considered as the innovators, the early adopters and the early majority. This puts considerable pressure on the peer banks within and outside the geography to evolve themselves. Banks will continue to explore niche areas to service customers better, be cost-effective and monetise on the benefits. In conclusion, it is imperative to say, that one of the key driving factors to winning customers' trust and to providing better products and services is by standing in their shoes and acting on key factors that would make the customer feel comfortable and relieved to embrace open banking practices. Being data, process and policy transparent and yet being able to maintain data security is the key to success.

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