UNDERSTANDING APIS IN BANKING 2017

TRENDS, DRIVERS & BEST PRACTICES IN OPEN BANKING

JUNE 2017

REPORT BY THE OPEN BANK PROJECT, UNIVERSITY OF WARWICK & BANK INNOVATION
The past year has seen a growing interest in Application Programming Interfaces -- or APIs -- and especially open APIs. This, in part, is driven by the new competitive environment in the industry, which is triggered by the Payment Services Directive 2 (PSD2) in the EU, and the Open Banking Standard in the U.K in particular. During this time, firms have been taking actions for regulatory compliance, but also to be able to protect their competitive positions in the market by adapting to the new environment in the most optimal way.

With this research survey, we wanted to better understand how banks worldwide are prioritizing API initiatives and why. We intended for the query to uncover the drivers behind the banking industry’s current API practices.

The results of the survey illustrated that the API environment across global banks is undergoing a tremendous change. Even today, some financial institutions still view the adoption of APIs and open banking as a threat; others, foresee banks transitioning to a more intermediary role, connecting customers and service providers.

Our analysis of the data shows that public awareness of new technologies drives an increase in firms’ initiatives for delivering innovative new apps, products, and services to customers. Thus, raising the public awareness and customer demand for innovative products might be the most important factor that drives firms towards investing in innovation.

Regulatory pressures have a moderate impact on banks in terms of launching new products. Overall, companies launch compliance-specific products – which address things like data security, for example – as a result of regulatory pressures. Even though these products are aimed to be more “compliance,” rather than “innovation,” the latter is achieved as a byproduct of such compliance efforts.

Regulatory requirements and an increased customer demand for innovative and efficient products may force banks to transition towards a more collaborative environment in order to remain relevant and find ways to profit together with other parties. This new environment encourages crossing the traditional boundaries of financial institutions, stimulating a move towards an open ecosystem.

**EXECUTIVE SUMMARY / KEY FINDINGS**

**KEY FINDINGS**

☑ **Open Banking Tipping Point**

For the first time since we started this survey, more than half of the respondents (52.4%) stated that they consider launching an open or partner-only API initiative in the 12 months (compared to 39% last year). 60% of the respondents stated that their organization currently uses internal APIs. It appears that the Open Banking Trend is here to stay.

☑ **Cost Reduction & Customer Satisfaction Among Key Drivers**

Our study found that companies, which have already launched APIs expect significant cost reductions in the areas for which those APIs are being used. In fact, cost reduction and increased customer satisfaction appear to be among the most effective motivations for firms, leading them to adopt open APIs.

☑ **Corporate Culture Still a Challenge, but Banks Are Working on It**

For the third year in a row, the biggest obstacle facing banks remains their internal culture, with 52.6% of respondents believing that corporate culture and internal bank bureaucracy is holding them back from developing and implementing an API initiative. However, this is a significant decrease from last year, where 69% of participants mentioned corporate culture as the main obstacle.

☑ **Europe Ahead in Open Banking**

The issues caused by corporate culture, bureaucracy, and technology, as well as lack of understanding of new technologies are widely seen challenges for API adoption. In Europe, however, those challenges are of considerably less concern for financial institutions. The adoption of open APIs is also encouraged by new regulation in Europe, compared to firms located in other parts of the world.
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CREDITS

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OVERVIEW OF SURVEY PARTICIPANTS

The “Understanding APIs in Banking” study surveyed 211 executives from the financial services and banking industry. It was conducted electronically, between April 11 and May 19, 2017 by Open Bank Project, University of Warwick & Bank Innovation.

WHO

The titles of the respondents varied from CEOs, CTOs, managing directors, and open banking managers, to CIOs, digital architects, product and innovation managers, technology consultants, and senior developers.

Other Roles: Associate Director Banking Operation CIO COO Digital Architect Digital Marketing Digital Strategy Analyst Director Division Manager Domain Architect Services Domain Consultant Emerging Technology FinTech Director Founder Head of APIs Head of Connectivity Head of decentralization Head of Payment Consulting and PSD2 Innovation Manager

WHERE

The majority of the respondents were based in Europe (46.9%), whose share has grown significantly compared to last year’s survey, and the U.K. (13.7%); followed by North America (12.3%).

ENTERPRISE CATEGORIES

This year’s survey saw an increase in participation from universal banks (13.7%) and especially ‘other’ respondents (28%), which included consultancies, software/technology providers, FinTech accelerators and financial institutions and associations. The share of the banks of all types constituted 43.4% of the respondents; 23.2% of the respondents were from FinTech start-ups.
API READINESS

Mapping the typologie of APIs.

WHAT KIND OF APIS DOES YOUR ORGANIZATION CURRENTLY USE?

60% of the respondents stated that their organization currently uses internal APIs and 52.4% stated they use partner-only APIs, whereas 32.4% use open APIs. Even though open API initiatives showed an increase compared to last year’s 30%, it is not very significant. 14.3% stated they are not using any APIs.

ARE YOU CONSIDERING LAUNCHING AN OPEN OR A PARTNER-ONLY API INITIATIVE IN THE NEXT 12 MONTHS?

52.6% of the respondents stated that they consider launching an open or partner-only API initiative in the next 12 months, while 24.2% stated that they do not consider such initiatives. 16.6% said the initiatives are already in place for their organizations.
ANATOMY OF BANKING API

ORGANISATIONS WITH API INITIATIVE VS ORGANISATION PLANNING AN API INITIATIVE (EXPECTED)

- Organizations with API initiative
- Organization planning an API initiative (expected)

BREADTH OF APIs

There seems to be a consensus on the number of APIs to open and number of apps consuming those APIs. The vast majority of respondent (whether they already have an API initiative or are planning to) suggests banks will open less than 50 APIs and connect less than 50 Apps.

<table>
<thead>
<tr>
<th>NUMBER OF APIs</th>
<th>NUMBER OF CONNECTED APPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10 APIs</td>
<td>52.17%</td>
</tr>
<tr>
<td>11-50 APIs</td>
<td>30.62%</td>
</tr>
<tr>
<td>Over 50 APIs</td>
<td>17.4%</td>
</tr>
<tr>
<td></td>
<td>68.28%</td>
</tr>
<tr>
<td></td>
<td>44.06%</td>
</tr>
<tr>
<td></td>
<td>70.56%</td>
</tr>
<tr>
<td></td>
<td>13.04%</td>
</tr>
<tr>
<td></td>
<td>33.04%</td>
</tr>
<tr>
<td></td>
<td>20.84%</td>
</tr>
</tbody>
</table>

SCOPe

For respondents with an API program, payment services have been the first to be API-fied. Similarly, respondents who are planning an API initiative want to focus on payment initiation while opening Account Information & Transactions history as well.

WHICH ASPECTS OF BANKING YOUR APIs (WILL) COVER?

| Account information | 19.09% |
| Transaction history | 9.52%  |
| Payment initiation  | 9.52%  |
| KYC & customer on-boarding | 9.52% |
| Financial product information | 9.52% |
| Account information | 82.57% |
| Transaction history | 73.39% |
| Payment initiation  | 73.39% |
| KYC & customer on-boarding | 63.3% |
| Financial product information | 44.44% |

PERFORMANCE

Organizations with an existing API initiative mostly measure success based on revenue, whereas organizations planning to open an API initiative seem to give more importance to the number of API calls, but still not ignoring revenue targets.

HOW DO YOU MEASURE THE PERFORMANCE OF YOUR APIs?

| Revenue                        | 59.12% |
| Number of API calls            | 67.66% |
| Value of transactions          | 32.63% |
| Number of apps connected to the API | 28.84% |
| Number of registered developers | 31.78% |

EXPECTED BENEFITS

Organizations currently having an API initiative are focusing on their direct impact on increasing efficiency, profitability, and customer service; while others that plan to launch an API initiative in the future appear to want more from this program. These organisations expect to gain compliance, access to larger amount of accurate data, cost reduction, as well as a first mover advantage.

WHAT ARE SOME OF THE BENEFITS YOU EXPECT FROM APIs?

- Increased productivity and efficiency
- Faster innovation with the contributions from an ecosystem of third parties
- Increased security and agility
- Better user experience
- Reducing costs
- Access and process more accurate data
- Compliance
ESSENTIAL COMPONENT OF A BANKING API INFRASTRUCTURE

The majority of the respondents think that an open banking API should involve a REST interface (71.6%), an API management and governance layer (72.3%), and an open standard (65.5%). 46.6% of the respondents state that open banking APIs should also have open source technology. The share of respondents seeing a SOAP interface as a requirement for open banking APIs is only 29.1%, down from last year’s 38.1%, among all survey participants.
CHALLENGES & OPPORTUNITIES

WHAT ARE THE MOST IMPORTANT BENEFITS THAT APIS CAN PROVIDE?

The most important benefit of an API initiative appears to be improved customer service, according to the respondents, closely followed by rapid prototyping of new services. Other benefits include new revenue streams, more insight-driven data, being viewed as an “innovator,” and increased compliance with regulations. Organizations expect to provide better customer experience, as well as enhance innovation, and gain a competitive advantage in a fast-changing market environment through the use of APIs. Cost reductions for firms and, consequently, lower prices for customers, are other important reasons for API adoption, according to the respondents.

WHAT HINDERS THE EMERGENCE OF API INITIATIVES AT YOUR ORGANIZATION?

The majority of respondents (52.6%) see corporate culture and bureaucracy as the most important obstacles for the emergence of API initiatives in their organizations in 2017, which is similar to the results we have received in the previous two surveys. Lack of understanding of the technology and its benefits also appears to be hindering API initiatives; 46.2% of the respondents stated that this is an issue. Lack of experience with APIs and uncertainty about the details of PSD2 are among other issues that organizations face. The capacity and resources of banks and of their partners need to be appropriate before APIs can be adopted more widely. Concerns around security and privacy are perceived as an important barrier for API initiatives (43.6%); regulatory and compliance concerns are among the obstacles according to 32.1% of the respondents. Whereas banks see APIs as a threat to their businesses, other organizations see slowness and reluctance of banks in adopting open APIs as a challenge. Budget (30.8%) and technology (26.9%) are the other most common factors hindering the emergence of such initiatives within organizations.
**EUROPE VS THE REST OF THE WORLD**

In Europe in particular, concerns around security and bureaucracy are considerably less compared to firms located in other parts of the world, probably due to a more favorable regulatory environment. In Asia, security, privacy concerns and a lack of momentum internally appears to be the most important challenges.

<table>
<thead>
<tr>
<th>OBSTACLES FOR APIs</th>
<th>EUROPE</th>
<th>US</th>
<th>ASIA</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORPORATE CULTURE / BUREAUCRACY</td>
<td>48%</td>
<td>69.2%</td>
<td>64.7%</td>
<td>53.6%</td>
</tr>
<tr>
<td>SECURITY / PRIVACY CONCERNS</td>
<td>39.8%</td>
<td>15.3%</td>
<td>70.6%</td>
<td>53.6%</td>
</tr>
<tr>
<td>LACK OF UNDERSTANDING</td>
<td>39.8%</td>
<td>53.8%</td>
<td>70.6%</td>
<td>50%</td>
</tr>
<tr>
<td>BUDGET</td>
<td>29.6%</td>
<td>38.5%</td>
<td>17.6%</td>
<td>39.3%</td>
</tr>
<tr>
<td>TECHNOLOGY</td>
<td>25.6%</td>
<td>30.8%</td>
<td>35.3%</td>
<td>25%</td>
</tr>
<tr>
<td>REGULATION / COMPLIANCE</td>
<td>30.6%</td>
<td>15.4%</td>
<td>53%</td>
<td>32.1%</td>
</tr>
</tbody>
</table>
MOVING FORWARD

WHAT CAN POTENTIALLY ACCELERATE THE ADOPTION OF API INITIATIVES AT YOUR ORGANIZATION?

- **Regulatory Pressure:** PSD2 and regulatory compliance appears to be one of the drivers of API adoption, as expected.
- **Organisation Readiness:** Internal factors, such as organization’s vision and understanding of APIs, better internal integration of the organizations’ systems, and change of organizational culture, as well as Having appropriate resources and capabilities (such as appropriate budget/funding and employees with relevant skill sets)
- **Availability of Standards:** Existence of API standards that are widely available in the market, such as the one developed by Open Bank Project, are seen as important factors that might accelerate API adoption.
- **Flexible IT infrastructure:** Having a streamlined documentation, which shows the processes of web services provision, and a common framework is a way to accelerate the change, showing the potential impact of API adoption.
- **Strong Developer Relationship:** External factors, such as awareness and demand in the market for APIs, having an innovative partnership ecosystem, and competitions/hackathons can accelerate the API initiatives in the organizations.

HOW WILL OPEN BANKING IMPACT THE “BANK OF THE FUTURE?”

NEW REALITY. NEW ROLES

The future bank is widely anticipated to be a platform provider, giving access to an ecosystem of services built on top of it. Some expect it to be an **aggregator of financial services** integrating these services into a new digital experience, where the banks providing the best services and the best experience for customers would be the winners. Others predict that the “old bank” will only hold the money, and the “new bank” will be an app-driven provider of value-added services.

WIDER CHOICE FOR CUSTOMERS

Lower switching costs is also expected as an outcome of open banking, enabling customers to take advantage of a wider selection of products from all banks. One respondent stated that the banks that are able to adopt this new model are likely to differentiate among their competitors, while FinTechs with a first-mover advantage are more likely to benefit from the new environment.

AGILE BANK

The bank of the future is expected to be more flexible, faster and also equipped with better and more innovative products. Some survey respondents see open banking as a complete reinvention of banking, calling it “the biggest shake up in banking in over 40 years.” How banks adapt to this shakeup (and how fast) is likely to determine whether they will remain competitive or fail.
ABOUT OPEN BANK PROJECT

Led by Berlin based TESOBE, the Open Bank Project is an open source API and App store for banks that empowers financial institutions to securely and rapidly enhance their digital offerings using an ecosystem of 3rd party applications and services.

We assist banks in executing effective API strategies by providing a proven API platform supported by an active community of developers and partners.

For more information on the Open Bank Project or if you would like us to help you assess your API initiative or organise a hackathon for your organisation, please contact us at:

contact@openbankproject.com
or visit our website at
www.openbankproject.com

ABOUT BANK INNOVATION

Bank Innovation is produced by Royal Media, a media company that has served the financial services industry since 1995. The site offers industry professionals a unique forum for sharing information, reading news, posting blogs, and e-networking with colleagues.

Bank Innovation tracks and encourages innovation in banking and explores the world of bank customer acquisition and retention.

For more news and insights on Banking APIs and FinTech in general, you can subscribe to the Bank Innovation newsletter, visit us at bankinnovation.net, or follow us on Twitter @BankInnovation

ABOUT WARWICK BUSINESS SCHOOL, UNIVERSITY OF WARWICK

Warwick Business School, established in 1967, is a department of the University of Warwick. Aiming to be a world leader in business education and research contributing to the creation of a better society globally, we work towards producing world-class research that shape and improve the way organizations function and businesses are managed, through engagements with industry and government.

For more information, please visit www.wbs.ac.uk

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PARTNERS

We would like to thank our partners who helped us spread the word about the survey