

JULY 2018

# INTERCONNECTION AND DATA AT THE EDGE: THE NEXT FRONTIER OF COMPETITIVE ADVANTAGE IN FINANCIAL SERVICES.

– Creating data-driven services on increasingly remote devices.

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# EXECUTIVE SUMMARY

There is a consistent focus on digital transformation within traditional banks. This paper, produced by Finextra in association with Equinix explores how interconnection and computing at the edge can help banks successfully navigate digital transformation and secure competitive advantage; whatever the future landscape looks like.

Traditional banking is experiencing disruption on an unprecedented level, driven by regulatory change and increased customer demand. In order to remain relevant, banks need to go beyond compliance with legislation and a “me-too” offering, to a new frontier where they are considering new business models, innovating new revenue streams and working with new partners to offer a personalised experience.

Banks lack the agility to capitalise on this opportunity given legacy technology, the ever-present threat of cyber-attack and the regulatory restrictions which are a pre-requisite for market participation.

Through an online survey of over 100 expert financial services professionals, and a series of one-to-one interviews with senior bankers, the paper lays out the key issues and opportunities faced by banks over the next five years. The key findings of the online survey on this environment and banks’ responses to it are as follows:



CATEGORY	Highest scoring item	%
Competitive landscape	New market entrants	34
Risks and threats	Cyber crime	56
Working with partners: priority area	Mobile / real time payments	34
Working with partners: key consideration	Bank's Procurement processes	54
Connecting to partners	Secure connections are required	68
IT Budgets: area of highest spend	Mandatory / regulatory change	47
IT Budgets: priority for discretionary spend	New products / capabilities	49

The adoption of a strategic approach to interconnection is critical to allowing banks to succeed in this rapidly changing competitive and regulatory environment. By utilising an IT infrastructure which is inherently agile, secure and interconnected, you can put the bank in the hands of your customers; when they want it, where they want it and through whichever device and application they choose to consume services. Specifically, the survey and analysis explores how interconnection can connect clouds, data, devices and partners to:

- Enable traditional banks to compete against the raft of cloud-native, customer focused neo-banks, through:
  - supporting provision of propositions to meet the expectations of a millennial population – data accessibility, ease of use, personal service;
  - providing new customer solutions based on data analytics and Artificial Intelligence (AI).
- Reduce costs and increase efficiency through simplified and automated operational processes;
- Make significant improvements in customer services
- Deploy machine learning and other systems to proactively prevent cyber crime and protect against data integrity compromise
- Facilitate banks in the onboarding and integration of third-party providers:
  - allowing banks to turn Open Banking / PSD2 / Open APIs from an issue of regulatory compliance to one of competitive advantage;
  - enabling banks to benefit from the products of specialist third party providers (TPPs) in important areas such as Know Your Customer (KYC), Anti-Money Laundering (AML), mobile and real-time payments, digital identity, biometrics and customer service applications driven by AI and Machine Learning.



# INTRODUCTION

Retail banking is undergoing transformation. A great deal of regulatory change has been brought about in 2018 ushered in by Open Banking, PSD2 and GDPR. At the same time, technologies and processes such as 5G, cloud and data analytics are reaching maturity while Artificial Intelligence (AI), blockchain and the Internet of Things (IoT) are entering dev ops environments. This is creating myriad opportunities and challenges for banks to respond to and requires agility in development, but also in culture. A mind-set of test, deploy and learn-fast is required but it does not sit comfortably with such conservative heritage.

Serving the customer in the fast-changing world is tricky and there is not much room for error. As table-stakes, banking services need to be flawless, secure and available everywhere. Competitive edge comes from anticipating and solving for the basic requirements of convenience and customer service. To do this, these services need to be functioning and processing data closer to the consumer than to the core banking infrastructure.

Banks must partner more to provide services, but onboarding partners is another knot of problems to be worked through. While the new data generated from partnerships creates opportunities to engage and serve the customer better, it also forces financial institutions to design a way to securely capture and process data across the value chain, even where they have no direct control. This becomes as much about cultural overhaul as it is about technical capability.



## THE NEW DATA FRONTIER

Video authentication for new account applications, chat-bots for credit applications, voice recognition for secure authentication, payments via mobile phone, the list of new innovations is endless. The data volume is exponential and the expectation is real-time. The foundation must be interoperable and interconnected; invisible to the end-user. Data is being created at every interaction and the interactions are happening everywhere, all the time. The risk to banks who can't or won't embrace this interoperable and interconnected innovation is that they become data farms. All the high-margin, value-add services built on top will be generating money for new entrants. The brand will become obsolete for the consumer and the relationship will be owned by TPP's. It happened in telecoms and it could certainly happen to the banks. The question is whether or not it will happen to you and did it happen by design or by omission?

**"Banks need to re-engineer their cost base to meet these competitive challenges. This includes their whole technology stack, their operations, KYC and Credit Risk processes – productivity per person must increase. AI could be used to address some of their challenges."**

**HETAL POPAT, PROGRAMME DIRECTOR AND HEAD, OPENING BANKING AND PSD2, HSBC**

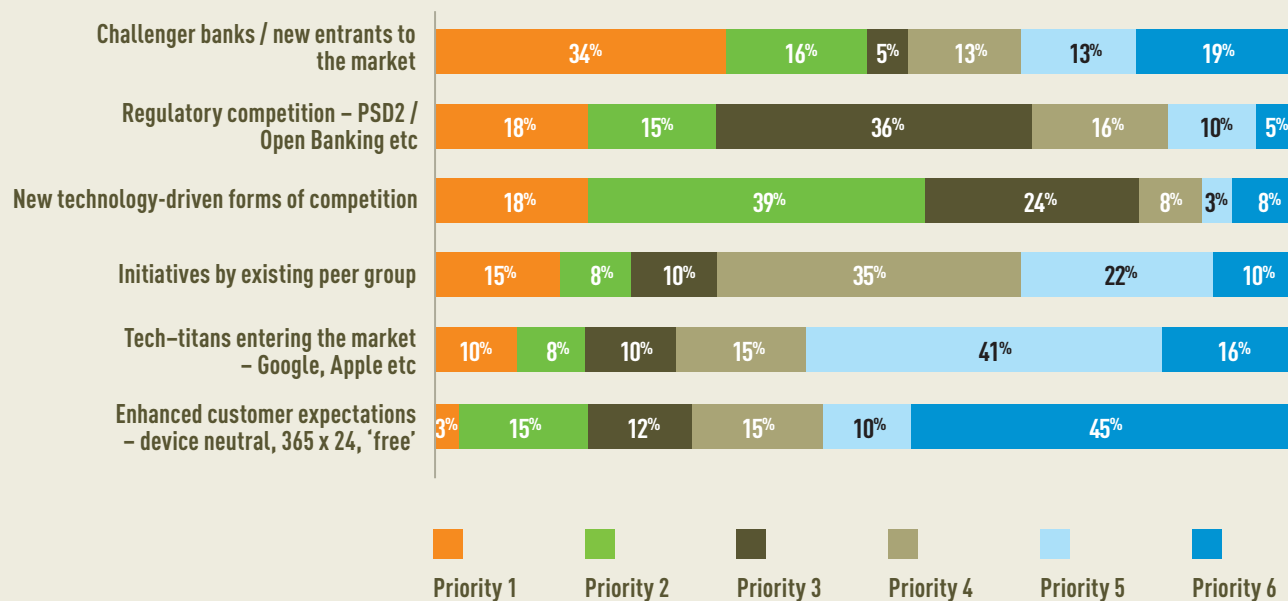




# THE COMPETITIVE LANDSCAPE

The first online survey question looked at the key trends within the competitive landscape that banks expect to face during the next 5 years:

**PLEASE RANK THE FOLLOWING TRENDS IN TERMS OF THE LEVEL OF COMPETITION YOU EXPECT THEM TO POSE YOU OVER THE NEXT 5 YEARS**



Challenger banks / new entrants was hailed by survey responders as their key competition. Aside from the ‘bricks and mortar’ banks such as Metro, there are a number of digital-only, or “neo” challengers such as Atom, Starling, Monzo, Monese and Fidor (in Germany).

These institutions are dedicated to delivering an optimal digital experience through their online or mobile channels. By focusing on customer services - which they believe to be a key weakness in the propositions of traditional banks – they seek to grow market share by passing on their lower costs to their customers in improved interest rates on deposits and borrowing. The “neo” challengers believe that they deploy technology to enable a digital banking service that is truly personal to each customer.

This threat from challenger banks, who operate with newer and lighter technology platforms, unencumbered by legacy siloed systems, will require traditional banks to examine all aspects of their cost bases to see where efficiency savings can be made. Hetal Popat, Programme Director and Head, Opening Banking and PSD2, HSBC, said, “Banks need to re-engineer their cost base to meet these competitive challenges. This includes their whole technology stack, their operations, KYC and credit risk processes – productivity per person must increase. AI could be used to address some of their challenges.”

The focus of challenger banks on a proposition based on the combination of digital services and customer experience raises important competitive questions to large, traditional banks. For example, how do they:

- Join-up their existing siloed systems to provide a seamless customer experience?
- Increase the speed of digital transformation across their business, making internal processes more efficient?
- Shelter their customers from the bank process / regulatory driven machinery
- Reduce their processing and IT processing costs?
- Provide a device-neutral, harmonised and consistent product and service proposition across all the countries in which the bank operates?

**“The customer experience is constantly being affected by the incredibly fast pace of technological change. Banking must keep up, or business will be put at risk.”**

HETAL POPAT, PROGRAMME DIRECTOR AND HEAD, OPENING BANKING AND PSD2, HSBC





**“The emergence of new technologies introduces another dimension when it comes to competition for banks.”**

**MARK DAVIES, BUSINESS AND COMMERCIAL PRODUCTS DIRECTOR, METRO BANK**

Even if the larger banks decide to eradicate the competitive threat posed by the challengers by simply acquiring them – a likely development – the traditional banks will still be faced with IT issues. In order to gain the full benefits from their acquisitions, the new, agile systems of the challengers will need to be integrated with existing systems of the traditional banks. Further, the management focus of traditional banks must shift from one of risk management and lending, to one of business success in a digital economy.

Next in the order of competitive challenge were regulatory competition and new technology-driven forms of competition, which were tied for importance in second place in the online survey. These two can perhaps be seen as cause and effect: regulatory changes (PSD2 and Open Banking) aimed at increasing competition in retail banking causing the development of deployment of new digitally-based institutions, propositions and products.

HSBC's Popat said, “The customer experience is constantly being effected by the incredibly fast pace of technological change. Banking must keep up, or business will be put at risk.”

The importance of the twin themes was also reflected in the interviews, in particular mention was made of the difficulty posed to banks in keeping up with and responding to the speed with which new technologies become available. Mark Davies, Business and Commercial Products Director, Metro Bank said, “The emergence of new technologies introduces another dimension when it comes to competition for banks.”

Best-in-class digital offerings are increasingly becoming essential parts of a bank's retail offerings – the modern lifestyle sees people ‘living’ on their mobile devices. A device neutral, 24x365 proposition being regarded as a simple, ‘vanilla’ offering to younger people – hence, Enhanced Customer Expectation being ranked as the least important trend in the survey.

In addition to regulatory competition, the interviews with senior bankers gave priority to the entrance to the market of Google, Apple, Facebook, Amazon (GAFA) and competition from existing peers. “The entrance of the Tech Titans into banking, either directly or by partnering with third parties, is going to have a considerable impact on the industry. Their extensive customer bases mean they're in a prime position to leverage these relationships,” Metro Bank's Davies continued.



There are various reasons why GAFA can be expected to enter into the banking market either directly or through a partnership (e.g. Amazon and JPMorgan):

- Banking services provide an opportunity for them to monetise their huge customer bases and in doing so cannibalise banks' business
- Younger customers have faith in these technology brands, more-so than they do traditional banks
- Their platforms are well suited to real-time delivery, rich content, and processing big data: all critical elements demanded in the new world of banking

GAFA are already in fierce competition with regard to digital services, and reaping all the benefits available to digital-only businesses, including the use of powerful data-mining tools to both power their customer services tools and enable powerful and insightful customer / sales messaging. The highly disruptive influence of new digitally based entrants on existing markets was illustrated by the effect of Uber on taxi services.

As highlighted in the interviews, to the larger banks with their huge domestic franchises and associated income streams in the hundreds of millions, competition from their traditional peers will always be an important feature of their competitive landscape. Although Open Banking has initiated the creation and development of services – in payments, in consolidated account and investment reporting, in foreign exchange – provided by specialist firms, these rely on the core current account held at a bank. Hence, competition between the large banks will remain intense.

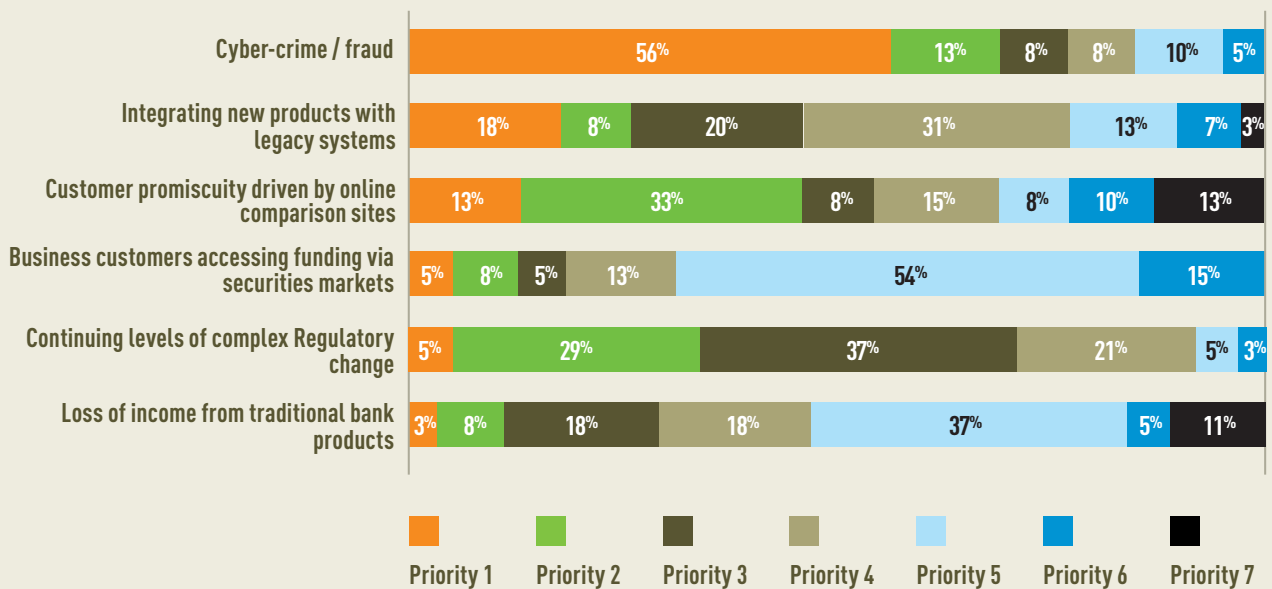
**“The entrance of the Tech Titans into banking, either directly or by partnering with third parties, is going to have a considerable impact on the industry. Their extensive customer bases mean they’re in a prime position to leverage these relationships.”**

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# RISKS AND THREATS

PLEASE RANK THE FOLLOWING IN TERMS OF THE LEVEL OF THREAT / RISK YOU EXPECT THEM TO POSE TO YOUR BUSINESS OVER THE NEXT 5 YEARS



Cyber crime / fraud was the over-whelming priority risk over the next five years, according to the survey, as it was to the interviewees from banks both large and small. The threats offered by sophisticated fraudsters / hackers, globally, are highlighted regularly by central banks and regulators. In the UK the NPSO (New Payment System Operator Ltd) has a dedicated fraud team to bolster industry-wide initiatives aimed at fighting cyber crime in payments. Further, On 26th March 2018 the UK government announced a new programme (Cyber Security Export Strategy) providing support to UK cyber security companies to protect the UK and its allies from this threat.

Becky Clements, Head of Payment Industry and Change, Metro Bank, said, “Cybercrime and fraud pose a real threat to the banking industry. As Non-Executive Director at NPSO (New Payment Systems Operator), we have a dedicated team focused on how the industry can work together to help combat cybercrime and protect customers.”

The cyber crime / fraud threats to banks are deep and widespread— as banks expand the methods by which customers can view their personal data and initiate transactions – internet banking, mobile banking, apps on smart phones – so their potential ‘attack surface’ increases. Added to this, threats from inside the bank include malicious or compromised members of staff or contractors, users with access to key internal bank systems and threats outside the bank comprise hacking into bank systems, phishing scams, fake websites created by criminals, compromise of their customers’ log-in credentials, etc.

The strategic response of individual banks to the significant threats posed by cyber crime must be met by the deployment of digital mitigants. Banks must have security barriers in place to protect data at every potential access point, be that internal systems, mobile apps, or connections via the IoT. And the security of all internal networks, systems and their access points must be tested regularly via so-called ‘penetration testing’. Much greater use must be made of Artificial Intelligence and Machine Learning so that unexpected activity or behaviour by both customers and members of staff alike is detected, highlighted and investigated on a proactive basis and in real time. The deployment of digital identity tools and biometrics is key to controlling incidents of identity theft.

**“Cybercrime and fraud pose a real threat to the banking industry. As Non-Executive Director at NPSO (New Payment Systems Operator), we have a dedicated team focused on how the industry can work together to help combat cybercrime and protect customers.”**

**BECKY CLEMENTS, HEAD OF PAYMENT INDUSTRY AND CHANGE, METRO BANK**



However, all such digital mitigants are only as good as the IT infrastructure on which they run. All the layers of a bank's digital defence must be provided on a highly secure, integrated, real-time platform accessible from anywhere in the world. In order to protect both themselves and their customers from cyber crime on a global basis, banks must implement strategic changes to their IT platforming and infrastructure. They must deploy ever-more sophisticated digital enablement to lead their fight against cyber crime and fraud.

During the interviews, open banking – with its requirement for banks to allow TPPs to access their core systems via API interfaces – was stressed as a major risk to banks. Ensuring the security of banks' API gateways, protecting them from digital vulnerability through multiple-layer defence, is a critical and challenging part of their open banking strategies. Banks must keep continually investing in their information security environments and it was suggested that industry-level initiatives such as "Security Profile" are key to success this area. The industry standards supporting open banking must be continually reviewed to keep banks ahead of the risks.

The ability to integrate the products of TPPs (often based on the latest technologies) with the ageing legacy platforms of large banks is a well-rehearsed challenge and risk to banks. However, from the interviews it became clear that newer institutions with their more modern core systems are less concerned in this area.

The interviewees also mentioned the threat posed by continuing levels of regulatory change. Particularly to the large banks, increased competition – with technology platforms and single sign-on allowing access to multiple providers – is expected to pose a significant threat to current income levels.

The traditional concept of people having a single 'life-time' bank is waning. This links to the theme of increased customer promiscuity as younger customers seek out the best deals via comparison websites. This situation of falling loyalty to bank brands – people using multiple suppliers, not just their (single) bank – was described as a "generational change" and, if it were to persist, would be "very damaging" for big banks. A second interviewee said that "banks must change to remain relevant to their (younger) customer base".

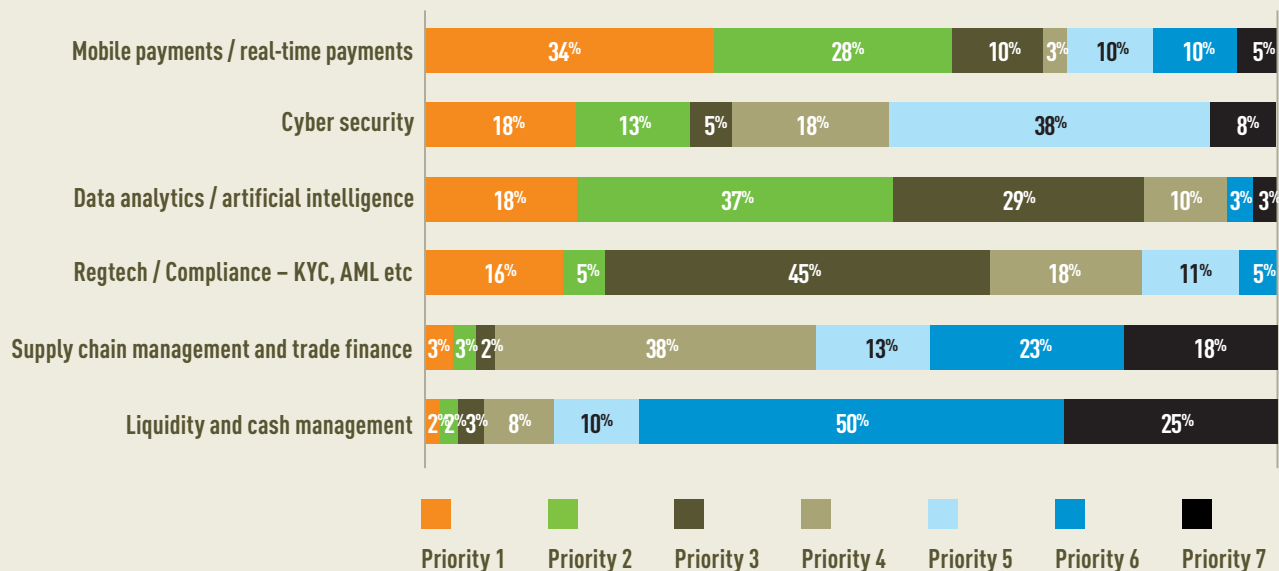
Open banking and PSD2 are also of concern to banks because they could lead to a situation in which they merely hold the customer's current account, whilst TPPs get their payments and other transactional business – so the banks get the account maintenance and system infrastructure costs but the TPPs get the transactional income. Banks can also expect greater volatility in their core retail deposits. Thus, Open Banking creates important risks to both the income and liquidity of large banks.



# WORKING WITH PARTNERS

Working with partners – particularly agile new firms using the latest technology – can help more traditional banks make the necessary improvements to their products and propositions as to allow them to compete with the digital challengers and other new market entrants.

## PLEASE RANK THE FOLLOWING IN TERMS OF YOUR PRIORITY AREAS FOR WORKING WITH THIRD-PARTY PROVIDERS





Survey responders ranked their priority areas for working with TPPs as Mobile / real-time payments, Cyber Security, and Data Analytics / AI.

In the interviews, the priority areas for working with TPPs which emerged were Regtech / Compliance, but with a focus as much on Open APIs as on KYC (Know Your Customer) and AML (Anti-money Laundering) services. It was said that the development of new AML products “offers a big market for fintechs” and also that TPPs can help drive better compliance within banks through, for example, improved Management Information (MI) reports e.g. for MiFID.

One large bank was also working with a TPP on developing a new customer services layer – using client data previously hidden in core systems to enhance their support. TPPs are able to make better use of bank data than the bank itself and this has important implications for the development of new products and services, for improved regulatory compliance and enhanced risk management. These considerations are at the centre of HSBC’s Digital Transformation. A second bank is also working with a TPP AI / Data Analytics fintech to develop new customer propositions based on monitoring patterns of behaviour and generating alerts in response to them.

Metro Bank’s Davies commented, “Data analytics provides a significant opportunity for us at Metro Bank and we have partnered with market leaders to develop ‘Insights’, our AI-powered personal finance management tool. Insights uses predictive analytics capabilities to review customer behaviour and transactions, in order to share tailored alerts and prompts to help customers better manage their finances.”

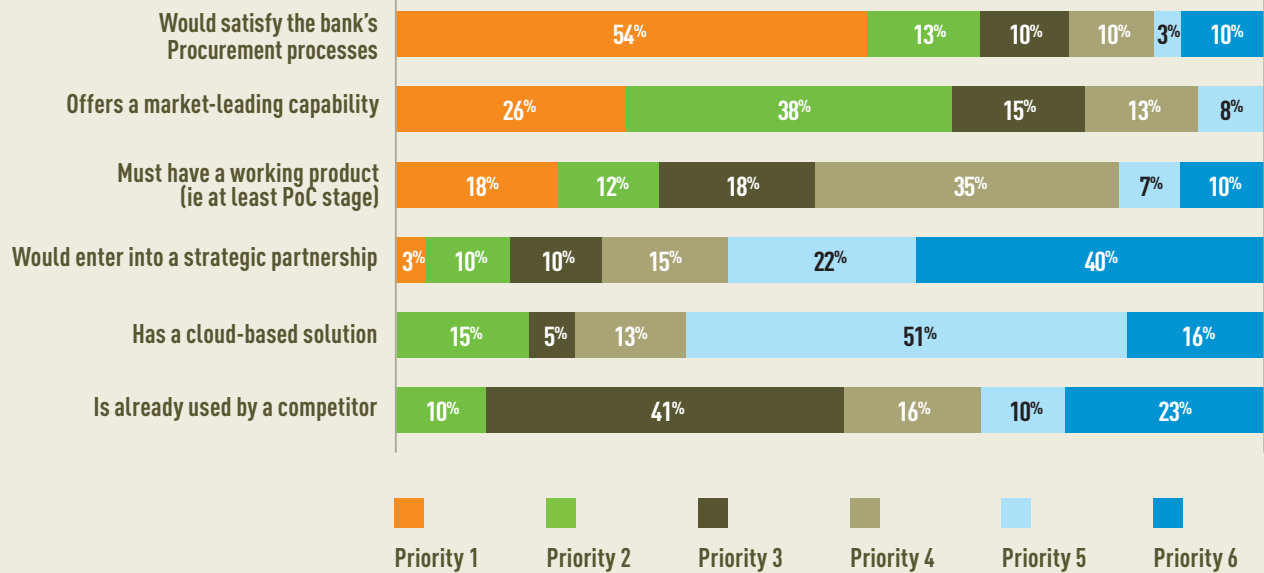
When looking at the most important factors considered by banks when deciding whether to work with a third-party provider, respondents confirmed the most important was the fintech’s ability to meet the requirements of the bank’s internal procurement processes. This issue was also highlighted in the interviews in terms of the challenges involved in onboarding and integrating TPPs into a bank’s infrastructure.

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## WHEN CONSIDERING WHETHER OR NOT TO WORK WITH A PARTNER, PLEASE RANK THE FOLLOWING IN TERMS OF THEIR IMPORTANCE. THE PROVIDER:



Consistently, interviewees highlighted both the importance of the issue and the difficulties that banks experience when engaging with TPPs, and vice versa. These can be summarised as follows:

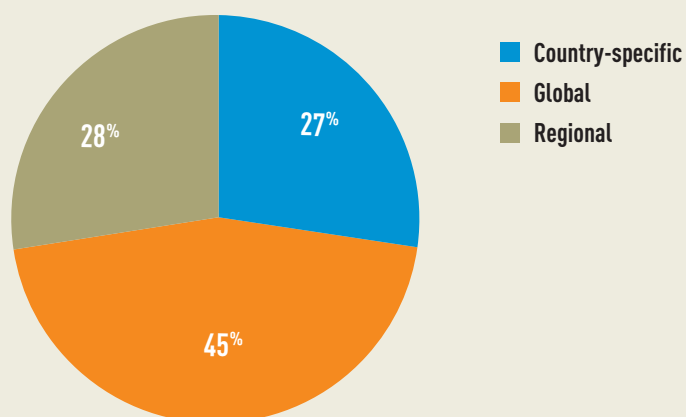
- The bank's procurement process was mentioned as a significant challenge, particularly when trying to work with small or only recently established fintechs. Such businesses often do not have the balance sheet, documented internal processes or reference cases to enable them to pass the standard due diligence tests of banks
- Particularly when dealing with large banks, fintechs struggle to identify who they should talk to within the organisation. This issue is complicated by the complex structures of the largest banks featuring decision makers at global, regional and country level. Additionally, banks have slow and complicated buying cycles which are not a good fit with small fintechs
- The alignment of resources of the bank and partner throughout all the phases of the project life-cycle. The bank's change resources are at a premium, hence any delays caused by the availability of the appropriate people from the supplier can be costly
- The regulatory and reputational risks associated with data security, confidentiality and integrity make this a critical issue when dealing with TPPs.



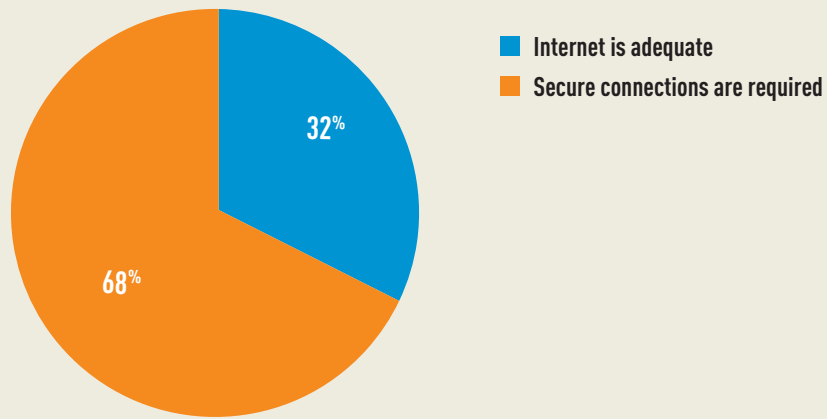
Whilst not ranked that highly in the survey, the importance of TPPs being prepared to develop a strategic partnership with their client banks was mentioned, consistently, in the interviews. The importance to banks of spending time and effort in building mutually-beneficial relationships is perhaps a sign of a significant change in approach – the days of a bank having ‘suppliers’ having been superseded by them having ‘partners’. Although one bank said that some suppliers may be reluctant to enter into such close arrangements with one bank for fear of losing opportunities with that bank’s competitors.

When asked whether bank’s third-party supplier strategies were based on a global, regional or country-specific approach, the general feeling with both the survey responders and interviewees was that banks are quite prepared to look at TPPs across the globe in order to find the one that best fits their needs. For example, a UK challenger bank is known to use Microsoft for its CRM platform. However, the comfort of knowing that a supplier is based in one’s own country – ‘just around the corner’ – i.e. the importance of local partnerships was stressed as important.

### IS YOUR BANK’S THIRD-PARTY PROVIDER STRATEGY BASED ON A COUNTRY-SPECIFIC, REGIONAL OR GLOBAL APPROACH ?



## WHEN CONNECTING TO PARTNERS IS THE INTERNET ADEQUATE, OR WOULD YOU PREFER / DO INTERNAL STANDARDS REQUIRE, THAT YOU USE SECURE CONNECTIONS?



Not surprisingly, both the online responders and interviewees confirmed that secure connections were a requirement when connecting to partners via the internet— MPLS lines, encrypted e-mails and secure gateways were mentioned in this regard. The regulatory imperative of securing customer data and minimising the risk of its compromise was also highlighted, including the GDPR (General Data Protection Regulation).

As companies make increasing use of cloud applications, reliable connectivity becomes paramount. There are two main options through which this can be achieved:

- Use a dedicated private line to connect directly to each cloud platform, such as AWS, Google Cloud, or cloud-based services such as Salesforce and Workday, or
- Have a single and secure connection to a cloud aggregation platform for secure multi-cloud access



The survey responses and interviews highlighted the importance to banks of working with TPPs to provide the agile new technologies and propositions they require from both competitive and regulatory imperatives. However the benefits can only be delivered through the successful on-boarding / integration of TPPs with existing bank systems and processes. Clearly, the greater the extent to which a bank has already deployed a secure cloud – first strategy and infrastructure, the faster it can realise the various benefits available from working with TPPs.

**“Open banking is often discussed in relation to regulatory compliance. But it is much more. The combined effect of open banking and the development of API networks offers opportunities to launch new products and services, increase competition and provide greater choice for customers.”**

**TERESA CONNORS, DIRECTOR, MARKET ENGAGEMENT, ROYAL BANK OF SCOTLAND GROUP**



Although there were no specific questions on APIs – Application Programme Interfaces – in the online survey, the subject was discussed during the interviews. By providing the secure means by which financial institutions connect with TPPs, APIs are an essential part of both regulatory compliance (Open Banking / PSD2) as well as competition in the digital economy.

The banks interviewed all said that they were creating new API platforms to handle their interface with both AISPs (Account Information Service Providers) and PISPs (Payment Initiation Service Providers). One interviewer said that their API platform was at the heart of their bank's strategy to connect banks and fintechs for collaborative purposes. Some banks' APIs gateways were cloud based, one organisation mentioned Apigee, part of Google Cloud, in this regard.

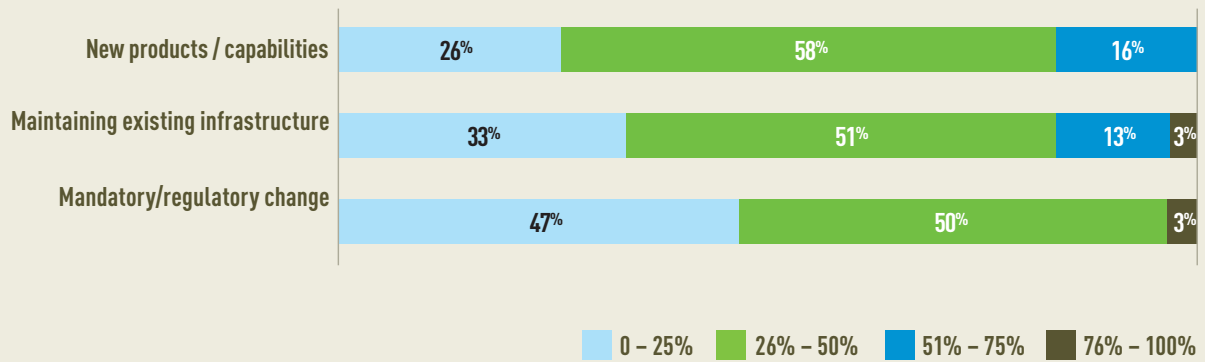
During the interviews, the banks were also asked whether their approach to Open APIs was focused on regulatory compliance or more strategically as a potential enabler of both innovation and competitive advantage. Teresa Connors, Director, Market Engagement, Royal Bank of Scotland Group, said, "Open banking is often discussed in relation to regulatory compliance. But it is much more. The combined effect of open banking and the development of API networks offers opportunities to launch new products and services, increase competition and provide greater choice for customers."

What was clear from their responses was that all the banks saw the strategic opportunities offered by open APIs, but some were still concentrating on delivering the mandatory elements, with innovation being for the future. Others were already seeking to use open APIs to drive competitive advantage, one bank saying that their organisation was "the most developed bank in terms of exploiting open banking".





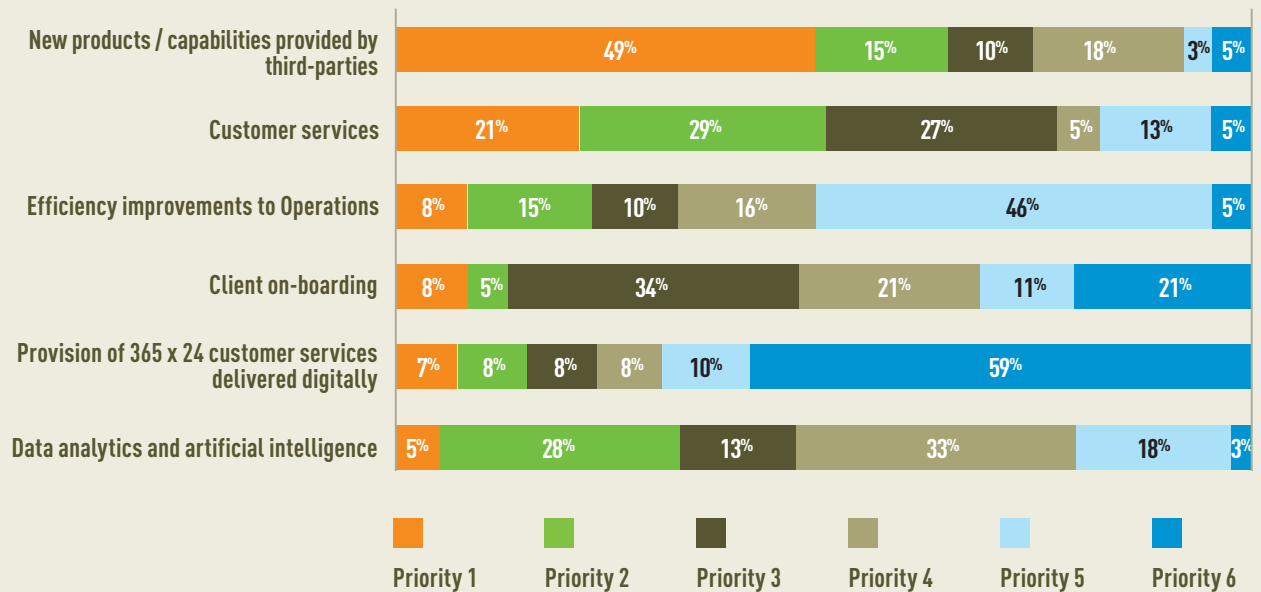
PLEASE INDICATE WHAT PROPORTION OF YOUR TOTAL IT BUDGET IS ALLOCATED TO THE FOLLOWING:



Not surprisingly, the largest area of spend for banks was on the development and implementation of mandatory (regulatory compliance) projects. The percentage splits given in the chart were generally reflected by comments made in the interviews. However, the younger banks with their less complex IT platforms do have an advantage in this area which sees them able to spend far more on new products and capabilities. This suggests that the challenger banks have a digital advantage over their larger competitors who are faced with the strategic catch-up issues detailed in section one.

One large bank commented that since the financial crisis of 2008, every year had seen a new peak in their organisation's spend on mandatory change. However, they were hopeful that once current projects such as PSD2 (which is in-flight), MiFID 2 (completed) bedded down the regulators would, perhaps, be less strident in announcing new compliance initiatives in the future.

### IN TERMS OF NON-MANDATORY ITEMS, PLEASE RANK THE FOLLOWING AREAS FOR DISCRETIONARY IT EXPENDITURE IN THEIR RELATIVE IMPORTANCE TO YOU



**“Linked to our digital transformation strategy, enhancing operational efficiency is an important objective for HSBC UK. We want to drive out manual processes and increase automation to produce an improve customer journey.”**

**HETAL POPAT, PROGRAMME DIRECTOR AND HEAD, OPENING BANKING AND PSD2, HSBC**

Once unshackled from the imperatives of mandatory and ‘keep the show on the road’ IT expenditure, responders prioritised their discretionary spend on 1. New products / capabilities delivered by TPP, and 2. Customer services, further emphasising the different approach to the new digital frontier financial organisations are assuming. The same two priority items were highlighted in the interviews.

HSBC’s Hetal Popat commented, “Linked to our digitisation strategy, enhancing operational efficiency is an important objective for HSBC UK. We want to drive out manual processes and increase automation to produce an improve customer journey.”

Once these two items had been ticked off, over the next two or three years, Popat said the focus would turn to AI and data analytics. This was supported by another interviewee who said AI would provide the key to allow banks to complete the re-engineering of their internal processes detailed above.

As before, the successful implementation of a digital transformation strategy – across all operation processes and the IT systems that support them – will be the main driver of both increased efficiency / cost reduction initiatives, and the key to unlocking the value which AI can bring to banks.

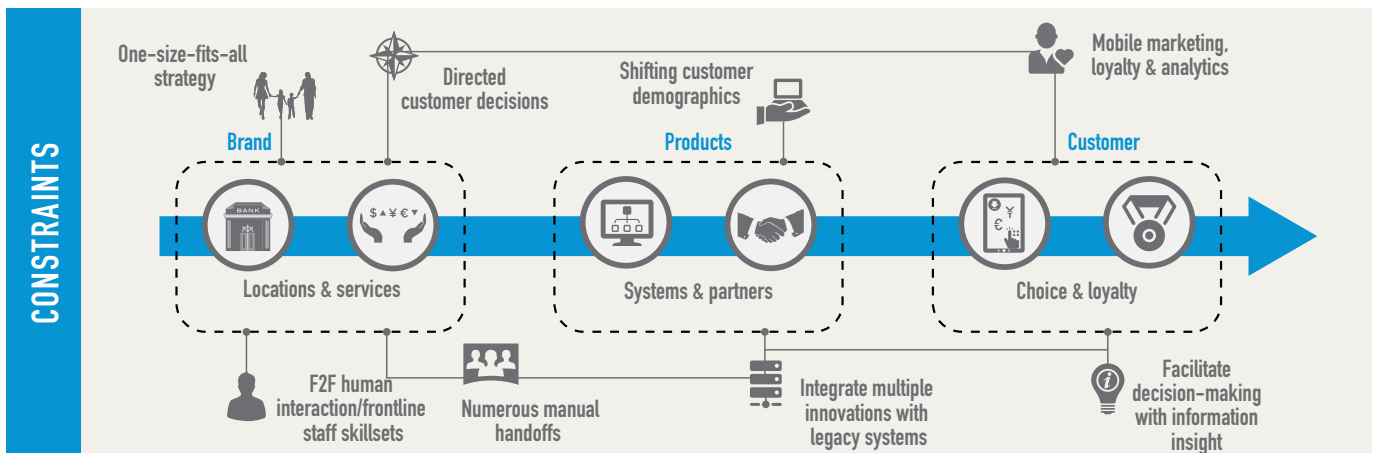


Customer demand for innovation is spurring digital transformation in banking. The banking industry must accelerate innovation to personalise and improve customer experience, whilst replacing obsolete models, complying with stringent regulatory frameworks and controlling costs.

#### BANKS NEED TO CONSIDER:

- Formidable non-bank competitors who are performing retail banking tasks in non-traditional ways;
- Mainstream banking services are now expected to be smart device native;
- Fierce competition for market share both within and outside the industry;
- Considerable risk posed by regulation and cyber-criminal organisations.

Banks lack information integration across brand, products and customer service, creating the following business and technology constraints:



## BUSINESS CONSTRAINTS

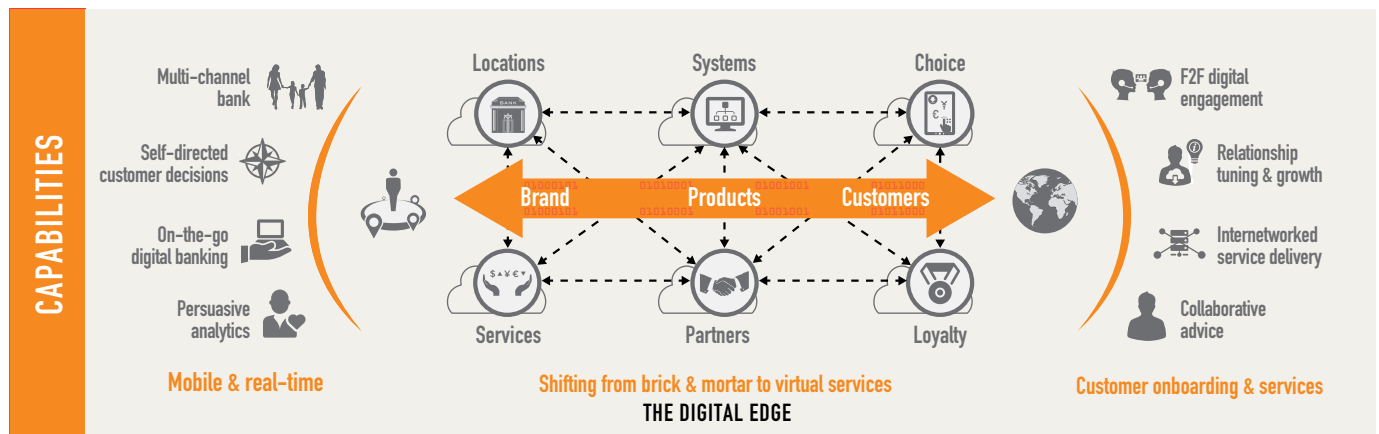
- Scattered product offering and services which aren't integrated into a single rich experience
- Product innovation is too slow, opening the door to new, more agile competitors to innovate, introduce and refine new value-add offers
- Security concerns continue to erode consumer confidence
- A short-term focus and ingrained business culture make it difficult to embrace change and move on from outdated models and approaches to satisfying customer needs

## TECHNOLOGY CONSTRAINTS

- Centralised IT can't deliver high-performance connectivity to mobile and dispersed customers who bank anywhere
- Response to changing customer needs is slow because of an inability to unlock insights from available data
- The ability to collaborate and partner with new financial technology providers to deliver innovative services is limited

## INTERCONNECTION UNDERPINS IT TRANSFORMATION

Business and technology need to change. Banks must adopt new strategies that enable the fast development and delivery of innovative customer-centred offering that meet rising consumer expectations whilst simultaneously redefining operating cost models to ensure long-term survival and profitability.



To expedite this transformation and meet the growing digital demands from consumers, banks must re-architect their IT infrastructure to create new and increased agility. By implementing an interconnection strategy, banks can unite capabilities, partners and offering on a global platform, enabling a reliable service delivery with accelerated product development. Connecting directly to the entire retail banking supply chain on the same interconnection platform at the edge of the network, where the data is as close as possible to the users, securely and at lower operating cost, is a large step towards the new frontier of competitive advantage in financial services.



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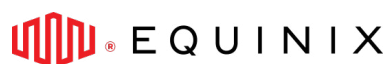
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# ABOUT

## Equinix

Equinix, Inc. (Nasdaq: EQIX) connects the world's leading businesses to their customers, employees and partners inside the most-interconnected data centers. In 52 markets worldwide, Equinix is where companies come together to realize new opportunities and accelerate their business, IT and cloud strategies.





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