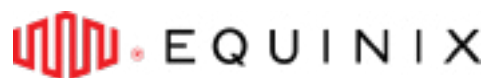


A RESEARCH PAPER FROM FINEXTRA IN ASSOCIATION WITH EQUINIX

JULY 2019



INTERCONNECTION AND THE SPEED OF CHANGE IN THE NORDICS



Finextra

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EXECUTIVE SUMMARY

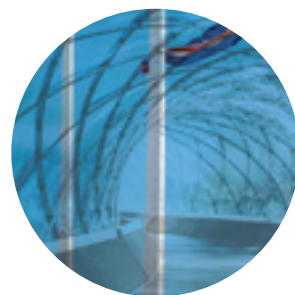
There has been a consistent focus on digital transformation within the Nordic traditional financial services industry. This paper, produced by Finextra in association with Equinix, explores how interconnection and collaboration can help banks successfully navigate digital transformation and secure competitive advantage within the Nordics, and indeed any banking ecosystem.

In the Nordic region, traditional banking is experiencing disruption on an unprecedented level and is being encouraged to rapidly become agile ahead of regulatory change such as the P27 initiative. What this will also continue is the healthy competition among banks for new products and services across Denmark, Norway, Sweden and Finland.

While in general, banks are seemingly lacking the agility to capitalise on the opportunity that data, the shift towards open banking and emerging technologies offer, the rest of the world can learn from the success stories that have emerged in this region in regard to advancements made in the digital identity, cashless economy and open banking spaces.

In 2018, through an online survey of over 100 expert financial services professionals, and a series of one-to-one interviews with senior bankers, our previous paper laid out key issues and opportunities faced by banks over the next five years.

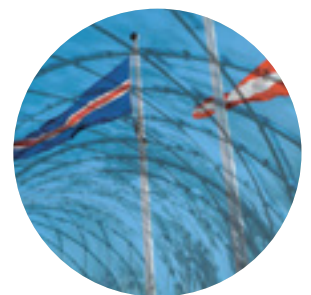
This paper builds on this survey to examine why the Nordic region is unique and how the area has embraced digital innovation, while also maintaining traditional banking ideals. It will also point to where challenger banks stand in the Nordics, how this relationship will play out and how the data conundrum is being dealt with amid the wave of digital payments.



The Nordic region has an abundance of players both traditional and new, nimble and constrained, but overall a market that is progressive and pioneering, with keen regulatory support, and crucially, strong customer faith in government and financial services alike. The partnership strategies enable open innovation and mutual learning. There is an acute awareness of the need for a robust, agile and scalable infrastructure to support the pace consumer demand dictates.

Such an infrastructure needs to support the following core requirements of service:

- Supporting provision of propositions to meet the expectations of a millennial population vis-à-vis data accessibility, ease of use, personal service and the provision of new solutions based on data analytics;
- Reduce costs and increase efficiency through simplified and automated operational processes;
- Make significant improvements in customer service;
- Deploy machine learning and other systems to proactively prevent cybercrime 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

As a result of a great deal of regulatory change in 2018 ushered in by open banking, PSD2 and GDPR, financial institutions are being encouraged to take a second look at technological capabilities such as data analytics, artificial intelligence (AI), blockchain, cloud, Internet of Things (IoT) and 5G. These are all entering the dev ops environment to introduce agility, which in turn creates a myriad of opportunities and challenges for banks to respond to, requiring agility both in development and culture. A mindset of test, deploy and learn-fast is required but this does not sit comfortably with the conservative heritage, combined with lack of in-house competences.

While initiatives such as the new multi-currency payment infrastructure P27 could transform how e-invoicing and direct debits work in the Nordics, healthy competition between banks is also being encouraged across Denmark, Norway, Sweden and Finland. Serving the customer in the fast-changing world is tricky and there is not much room for error and 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.

This is why the Nordic region is so unique in its continual innovation and goal of establishing a branch network that takes into consideration the customer journey and cost on a parallel level.

As has been seen with the success of digital identity schemes, the cashless economy and open banking in the Nordics, banks must partner more to provide efficient and effective services that the rest of the world covets. However onboarding partners is another knot of problems to be worked through because capturing data across the value chain, where in parts customers have no direct control requires a significant uptick in data governance, particularly where third parties are brought into play.

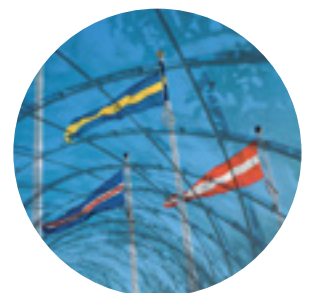


While the new data generated from partnerships creates opportunities to engage and serve the customer better, it also forces financial institutions to design a way to securely capture and process data across the value chain, even where they have no direct control. This is a new way of working for banks that have traditionally operated with distinctly siloed data sets and this becomes as much a cultural attitude to address as well as a technology issue.

An organisation-wide view on data combined with a comprehensive and coherent strategy requires business lines to collaborate more than before. The digital payments ecosystem is providing the ideal environment for startups to thrive, but it remains to be seen how it will play out when traditional banks enter this space and to what extent they will have to change to meet the challenges, or opportunities, that disruptive technology offers.

Video authentication for new account applications, chat bots for credit applications, voice recognition for secure authentication, payments via mobile phone— the data volume is exponentially increasing, and the expectation of real time service will not decrease. The foundation, therefore, must be interoperable and interconnected, as well as being invisible to the end user, who has no interest in what happens at the back end. Data is being created at every interaction and these 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. This will leave the high margin, value add services built on top generating money for the new entrants instead, the bank brand becoming obsolete for the consumer and the relationship being owned by TPPs.

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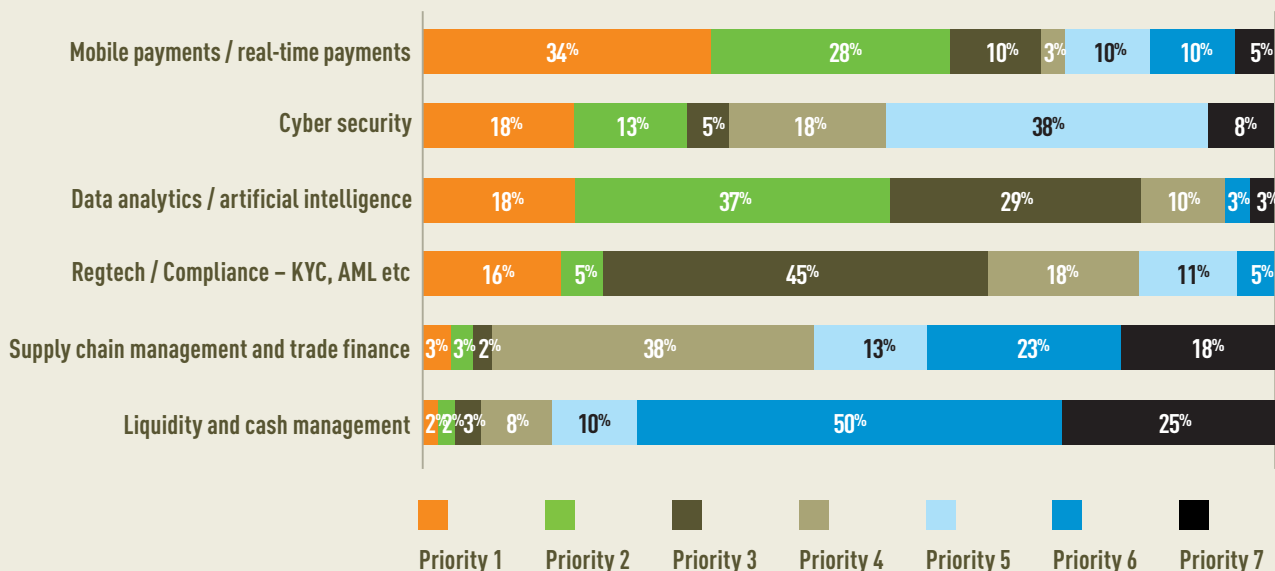


HEALTHY COMPETITION– AN INDUSTRY VIEW

In the age of digital transformation that is seemingly being driven by regulatory change in the form of open banking, financial institutions are taking stock of what it means to work with partners – particularly agile new firms using the latest technology – and how traditional players could benefit from making improvements to products and propositions to help compete with digital challengers and other market entrants.

Due to the abundance of disruptive technologies now available, banks in Sweden and Finland especially, are working to partner with third-party providers (TPPs) to bring in the skillsets, creativity and flexibility they need to be more agile and quicker to deliver innovation to the market.

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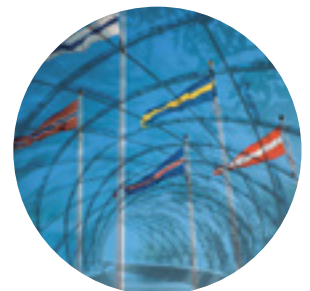
Maciej Janusz, head of cash management, Nordic region, Citibank, said, “When it comes to corporate banking, the partnership model is not only efficient, it’s also sound. Financial technology companies bring agility, innovation, technology and solutions ready for deployment while banks bring scale, client relationship and regional, or in the case of Citi, global relationships. This creates inherent compatibility. These partnerships will subsequently lead to interconnectivity of systems, solutions and infrastructures leading to conceptualisation of entire ecosystems.”

Survey responders ranked their priority areas for working with TPPs, with mobile / real-time payments, cyber security, and data analytics / AI coming out on top. 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.

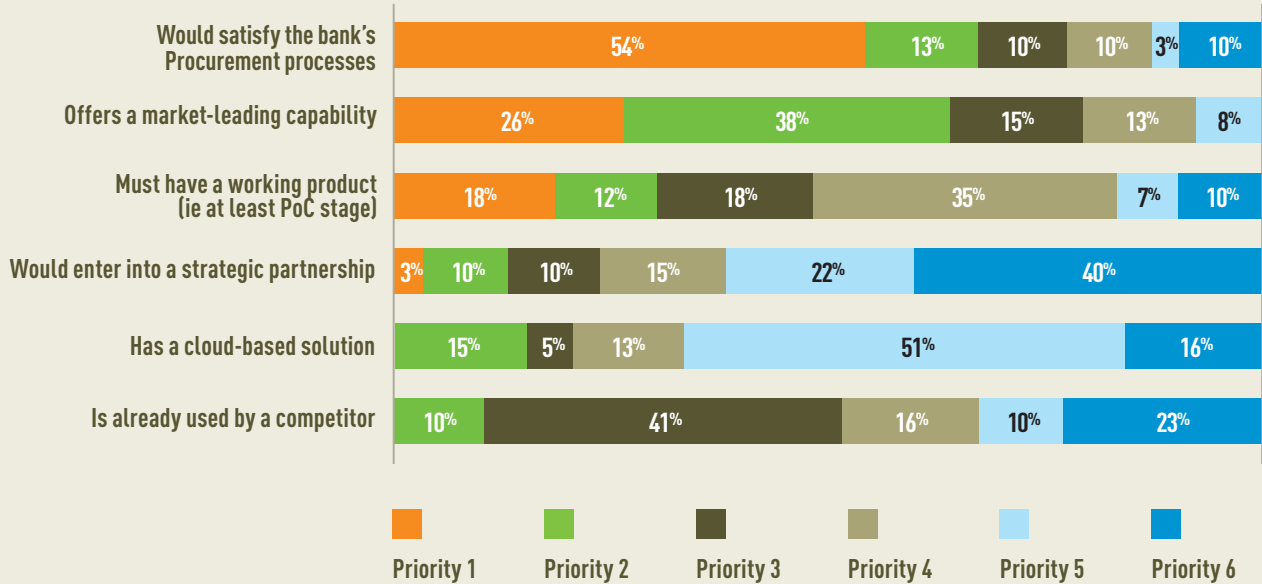
Interviews with one large bank also revealed that they were working with a TPP to develop a new customer services layer using client data that had previously been hidden in core systems, to enhance support.

Rumours have been proven and evidence shows that TPPs are able to make better use of bank data than the bank itself. This has important implications for the development of new products and services, as well as for improved regulatory compliance and enhanced risk management – especially important in this new era of open banking under GDPR and PSD2. The 2018 survey found that these considerations were at the centre of HSBC’s Digital Transformation, for example.

Respondents also confirmed the most important factor considered by banks when deciding whether to work with a third-party provider was the fintech’s ability to meet the requirements of the bank’s internal procurement processes.

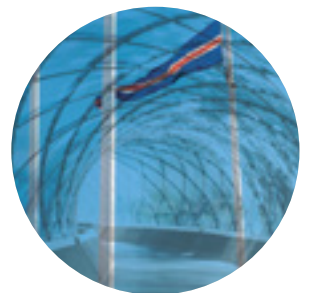


WHEN CONSIDERING WHETHER OR NOT TO WORK WITH A PARTNER, PLEASE RANK THE FOLLOWING IN TERMS OF THEIR IMPORTANCE. THE PROVIDER:



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MACIEJ JANUSZ, HEAD OF CASH MANAGEMENT, NORDIC REGION, CITIBANK



The importance of the issue and the difficulties that banks experience when engaging with TPPs, and vice versa, were highlighted and can be summarised as follows:

- A bank's procurement process was 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
- 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 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 importance of local partnerships, and the comfort of knowing that a supplier is based in one's own country – 'just around the corner' – was stressed as important.



THE DIGITAL IDENTITY CASE STUDY– A TRUST DYNAMIC AND MANDATE FOR ROBUST INTERCONNECTIVITY

This ‘comfort of knowing that a supplier is based in one’s own country’ or ‘just around the corner’ could be why the Nordic region has had some success in regard to digital transformation. To use digital identity initiatives as an example, in conversation with Finextra Research, Arkwright’s Frank Wunderlich and Signicat’s John Erik Setsaas highlighted how the four countries can now act as a blueprint for digital identity success, but also how banks and financial institutions were crucial for this positive result.

The number of institutions involved, and the multitudinous data required to inform and support a federated ID system is perhaps one of the strongest markers of the need for a robust infrastructure- interconnected both internally and externally.

Citibank’s Janusz said the following regarding digital identity success in the Nordics, “Solutions such as BankID in Sweden have been implemented with the initial goal of easing the access to public services as well as banks through a service that can facilitate identification and signing function. It has worked exceptionally well over the years, specifically following implementation of BankID app on smartphones (mobile BankID) in 2011. In terms of BankID success, statistics speak for themselves, 97.5% of citizens between 21-50 years old have BankID and it is projected that BankID will be used a staggering four billion times in 2019 to perform either identification or signing.”

Federated IDs provide a platform to launch new and improved services to customers. For this reason an ID system is not only pulling together new and increasing data points to inform and, hence, protect the identity of customers for banks, third parties and customers alike– it also gathers and processes data from all manner of points into the billions of transactions to inform the development of new services. This, combined with the trust factor, adds gravitas to the mandate to keep data secure and points to the urgent requirement for banks to have a sturdy infrastructure underpinning all activity.



Sweden, Norway, Finland and Denmark have solved the issue of ‘proving we are who we say we are’ by giving their citizens an online identity which is recognised by casual users and secure authorities.

“Over time many solutions have evolved, but in all four countries a solution jointly initiated by a group of banks has taken the dominant position. This is because banks in collaboration have a huge advantage over governmental and third-party solutions. They are the only players who have already authenticated the majority of their country’s citizens and transferred them to an online solution - online banking. However, collaboration amongst banks alone is not enough to guarantee success,” their report read.

Wunderlich continued to say that in the Nordic region, especially in Norway and Sweden, using digital identity is as everyday as “using a toothbrush” and he went on to question why similar initiatives have not penetrated other markets in Europe or have not experienced similar traction.

While all four countries have established their individual digital identity schemes in different ways, they all have similar rates of penetration – with an average of over 80% – and financial institutions had a big part to play in their success.

Although there was reluctance at first, banks and identity service providers soon realised the benefits of working together and only then, momentum in mainstream use ensued. John Erik Setsaas added: “The e-ID market is confusing and unstructured because you have different countries and different cultures, which is part of what we’re touching on in the report. Banks have had a very central role in the Nordics and from my perspective, this is important to make e-ID schemes take off.”

In Norway, digital identity was established after a number of banks decided to not compete on identity and security products and work together. This worked because customers trust their banks and frequently use their services, which already have login authentication processes in place.

“We also saw the take-up of e-ID in Norway when the government started to integrate taxes and student loans into BankID, despite the country also offering a government ID,” Setsaas said.

In Norway and Sweden there were also a couple of banks who were sceptical about digital IDs at first, but it was only after they joined the initiative, penetration surged. “You need the critical mass of banks and over time, the others will join,” Wunderlich said.

Federated e-IDs serve as a platform to launch better services to customers: “This new business model is nowadays also used beyond the financial sector. Select e-ID business customers report that they are happy to pay for the service, as its benefits outweigh the costs. The trust gained through this venture has enabled the collaborating banks to develop new solutions and products together, which can be implemented much faster in the market.”

Swish, which originated as a Swedish mobile peer-to-peer payment solution, launched in 2012 and is now the number two payment solution of choice at point of sale.

“Federated e-IDs also help with the password nightmare because I only need to remember one. From the service provider’s perspective, they will be offloaded from handling this and they will receive customer information because it has been verified by banks. This also reduces fraud because it makes it difficult for a user to masquerade as someone else and all the banks can come together to solve the identity problem at a central point,” Wunderlich added.

But why has it not worked in the UK? Only three percent of the UK population have an e-ID. Setsaas explains that this is because there is more competition between banks in the UK and less of a willingness to cooperate. According to Setsaas it’s also about “to what degree people are ready to share their information and there is also a challenge in that the UK does not have a national identification number like we have in the Nordics, which simplifies the process of ensuring everyone has a unique identifier.”

A Nordea practitioner said they “lost some customers and contracts when joining BankID, as these consumers already had BankID with other banks. That said, if we hadn’t joined at that time, we would probably have lost more customers as Nordea couldn’t provide a mobile solution.”

In conversation with Finextra, Ville Sointu, head of emerging technologies at Nordea, highlighted that banks are aware of what their strengths and weaknesses are. While it is clear that fintech companies might be better at innovating in narrow segments of the financial services market, a partnership would be beneficial.

“There are many win-win scenarios out there where we can combine our strengths between banks and fintech companies and simply create better services for our customers. We as a bank don’t need to be the “one stop shop” for everything.



“Particularly in the DLT/blockchain space we’ve noticed that creating regulated and open shared infrastructure is the way forward. There’s a lot of collaborative ground to be covered in reconciliation and settlement between financial institutions. Instead of replicating these processes and data structures separately in every bank, it simply makes a lot of sense to work together in areas where there’s no competitive edge to be gained. Ultimately this joint development in the collaborative space will result in cheaper and more efficient services for everyone,” Sointu said.

In line with an increasingly holistic, enterprise-wide outlook on digital transformation, emerging technology and perhaps most importantly, data, various innovations, new systems and security need to be met with an equally holistic approach. Change cannot be introduced in siloes- the whole operation and all its activities need to connect and feed into one another across a solid foundation in a financial ecosystem connecting all the players to each other. This ecosystem is fundamental to progress along the digital transformation path and to the collaboration discussed in the next section which forms an essential part of the journey.



SUCCESS STORIES DOWN TO PARTNERSHIPS AND COLLABORATION— AN OPEN CULTURE

As has been shown with the example of digital identity in the Nordics, there is a strong and long-term commitment within the region to transform the financial institution, with an ethos that puts the customer first through partnerships between banks and fintech companies.

Other than in the personal identity space, another much-discussed success story exists in the remarkable decrease in the use of cash in the Nordics, which again showcases how unique the region is, despite maintaining traditional banking ideals. Nordea's Sointu, in conversation with Finextra, pointed to how Nordic countries have traditionally been in the group of global frontrunners in the adoption of digital infrastructure.

“There are many macro level reasons for this, but one of the important ones is the relatively high amount of trust Nordic citizens place in their governments and regulated institutions compared to many other regions. This trust in the society has allowed focused development of digital public infrastructure without excessive political disruptions.

“This stable, open, transparent and trusted society is a good growth platform for things like moving to a cashless economy and truly digital identity infrastructure,” Sointu said.

Open banking requires collaboration with partners and the ability to manage their access to APIs. For traditional banking, the first step is transforming legacy IT infrastructures to be more efficient, agile and digitally ready to enable a quick go-to-market strategy.

Anna Grandt, head of digital experience at SEB, also highlighted that what has changed is actually the mindset. Instead of viewing the fintech space as only a competitor, the bank realised that they have a lot to learn from the industry and could benefit from collaborating. This is the industry realisation of the message— driven by the regulator and consumer in arguably equal demand, that in order to deliver on open banking, both incumbents and smaller fintech players must join together.



“We changed our way of thinking about partnership in this area. We decided that from both a fintech perspective and a VC perspective, how do we want to invest in these kind of companies, but also how can we collaborate, so we changed our way of looking at them and our mindset and suddenly we then had a whole range of partners to see how they could help us provide better services for our customers.”

“I think we need to revisit how we look at partnerships. Both when it comes to how the banks work together, should we develop all different systems in silos, should we collaborate more between the banks. We see some of these new initiatives in Sweden right now, we have been developing Swish which has been around for a few years, but also things like P27 and we’re looking into new payment infrastructure,” Grandt said.

Citibank’s Janusz said of P27, “This ambitious endeavour will push the limits of what we thought is possible as it sets the bar for new level of collaboration by financial institutions across four countries (bearing in mind Norway’s decision to step back from the project in March’19).

“Beyond establishing a single Nordic payments infrastructure capable of instant multi-currency clearing, P27 will facilitate a number of benefits for society, such as improving trade due to coherent and harmonious connection of Nordic economies and establishing foundation for innovative products and services on future-proof infrastructure with world-class user experience.

“In summary, P27’s impact on the Nordic countries will be profound and if all project ambitions will be realised it will accelerate economic development in the region as well as establishing a new model for operating Financial Infrastructure that other countries may wish to follow.”

Grandt mentioned the limiting factor of Swedish as a language when finding partners in voice recognition, and hence the importance of collaboration around AI to broaden the NLP portfolio.

With services such as Swish, said Grandt, which is now the number two payment solution of choice at point of sale, Sweden is now the most cashless society on the planet, with barely one per cent of the value of all payments made using coins or notes from 2016.



Obstacles present themselves, however, when attempting to serve the customer with a competitive edge. In the Nordic region, banking services need to be especially flawless and secure against the backdrop of the burgeoning cashless society, which is starting to permeate across Europe.

Erik Zingmark, head of transaction banking at Nordea questioned when, if ever, the Nordics will become fully cashless.

“There are two challenges: one is that some of the people in the tale, will never use a smartphone, so one solution to that could be that we, as the bank industry, develop super simple smartphones to help the elderly make use of the new technology. Then one big problem remains: what happens if the electricity goes out? I think until the industry solves that, we will never become fully cashless. I think the answer to that is that we will develop solutions where you can carry value offline so you will be able to pay in a store offline if the merchant is offline.” This illustrates the importance of resilience, reliability and flexibility in the ecosystem, when different parts of the organisation, and different players and customers have myriad and oft-changing requirements.

“We decided this from both a fintech perspective and a VC perspective– how do we want to invest in these kind of companies, but also how can we collaborate, so we changed our way of looking at them and suddenly we had a whole range of partners to help us provide better services for our customers.”

ANNA GRANDT, HEAD OF DIGITAL EXPERIENCE, SEB



CHALLENGES AND CHALLENGERS

While the consumer should maintain control and ownership of their data, questions are also raised about where challenger banks stand in relation to traditional players and how the relationship between traditional players and newer banks will play out in the Nordics. Ville Sointu, head of emerging technologies at Nordea, highlighted:

“Challenger banks in the Nordics are still in early stages, but many of them are showing strong growth. The Nordic region will likely continue to move towards a market where our customers might also be customers of two or three other financial institutions that they use for different purposes in their daily lives.

“With open banking, digital identity and real time payment infrastructures it’s a more level playing field for everyone. It’s up to us as banks to remain competitive in this market where there’s an ever-increasing amount of choice. We believe that our customers should own their data and always have a clear view into what consent they have given for what services. The Nordic approach to digital identity is critical in making this MyData vision a reality for everyone.”

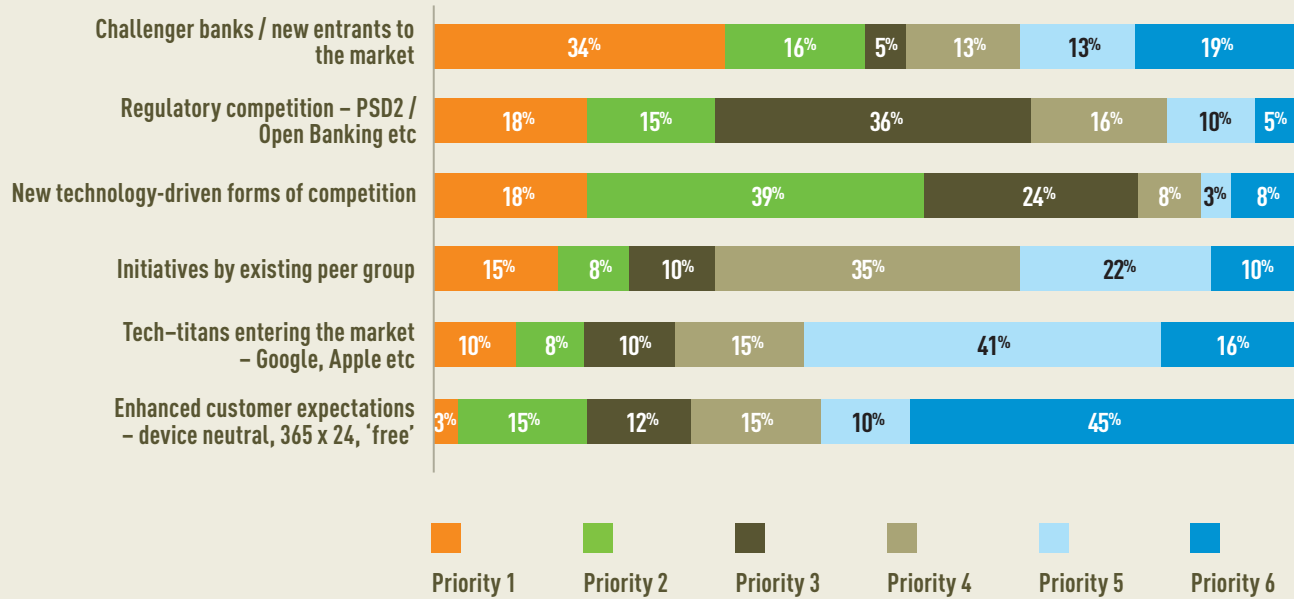
The first online survey question for the 2018 report looked at the key trends within the competitive landscape that banks expect to face during the next five years:

“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, OPEN BANKING AND PSD2, HSBC



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.

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 – and through their lower cost base which in turn can be passed to their customers – they seek to grow market share. 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.



Once unshackled from the imperatives of mandatory and “keep the show on the road” IT expenditure, responders prioritised their discretionary spend on new products and capabilities, delivered by TPPs, first of all, followed by Customer Services- further emphasising the different approach to the digital frontier financial organisations are assuming. The same two priority items were highlighted in the interviews, with stakeholders acknowledging the importance of a strong infrastructure to process ever-increasing amounts of data across all areas of the ever-growing ecosystem.

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.” How AI is being used to capture data will be discussed in a later section.

However, even if the larger banks decide to eradicate the competitive threat posed by the challengers by acquiring or partnering with them – a likely development, especially in the Nordic region – 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. The foundation must be interoperable and interconnected; invisible to the end-user. Furthermore, the management focus of traditional banks must shift from one of risk management and lending, to one of business success in a digital economy. To succeed in this new environment, the brick-and-mortar banking world, built on the solidity of on-premises mainframes and entrenched networking habits, will need to transform itself into a digital provider of cloud-based financial services accessible to users anytime, anywhere.

Leveraging new technologies is key to the transformation of operations, as Maciej Janusz, of Citibank said, “All the latest technologies such as cloud computing, big data and AI, IoT and 5G and even blockchain are continuously being tracked and evaluated for delivering applicable and scalable solutions in banks. However one of the challenges, particularly in the evaluation process is that a lot of analysis has historically been carried out in ‘vertical’ organisational siloes – e.g. technology organisations potentially experimenting with blockchain or deploying cloud-based solutions with little involvement from product teams; product teams running Proof of Concepts (PoCs), leveraging big data and AI without much involvement from Operations, etc.. In that context new agile operating models are emerging where new technologies are evaluated across ‘horizontals’ leading to full alignment across all stakeholders and expedited delivery from evaluation, to PoC to Pilot in Production environment.”



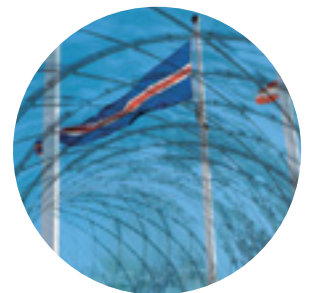
Next in the order of competitive challenge was regulatory competition and new technology-driven forms of competition, which were tied for importance in second place in the online survey. These two can perhaps be seen as cause and effect: regulatory changes (PSD2 and Open Banking) aimed at increasing 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 affected 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 revealed concern regarding 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.



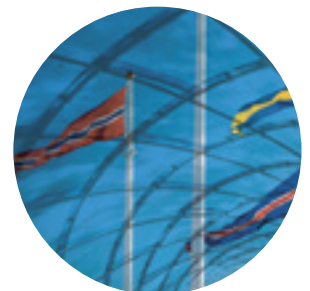
There are various reasons why GAFA can be expected to enter into the banking market either directly or through a partnership (e.g. Amazon and JPMorgan):

- 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.”

MARK DAVIES, BUSINESS AND COMMERCIAL PRODUCTS DIRECTOR, METRO BANK



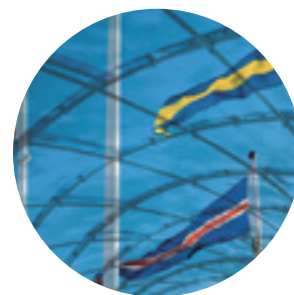
THE FUTURE OF PAYMENTS

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". Equally, what emerged was the recognition of changes required to underlying infrastructure to support the opening of the system and the rate of change, in a real time environment.



The digital payments ecosystem is providing the ideal environment for startups to thrive, but it remains to be seen how it will play out when traditional banks enter this space and to what extent they will have to change to meet the challenges, or opportunities, that disruptive technology offers.

Gunnar Berger, head of open banking at Nordea spoke to Finextra about the connection between open banking and real-time payments and he explained how open banking presents an opportunity – especially with the implementation of PSD2 – “for the way to do banking of the future.”

Berger went on to explain that open banking and real-time payments are complementary because together they underpin immediate transactions.

“Open APIs are very much about real-time connectivity between applications that are residing with third parties or corporate customers and applications in the bank. If you have real-time connectivity and on top of that you can add products like real-time payments, the fit is perfect.”

After being questioned about open banking, Berger said he hoped that it would benefit the customer and lead to increased competition and in turn, more innovative products. Does this mean that the time is now right for developing a single payment area, such as the P27 initiative – that promises a single pan-Nordic payment clearing infrastructure for the 27 million inhabitants of Sweden, Norway, Finland and Denmark? At the time of publication, Norway’s stake in P27 is unclear.

“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



DATA AS AN ASSET

Mattias Fras, Group Head of AI Strategy & Innovation, Nordea, commented on how regulatory pressure, hitting the banks in the form of PSD2 and GDPR, has resulted in the acceleration of competition between the banks, new banks and the big tech companies, in addition to changing customer behaviour.

“That in combination with the maturity with the [artificial intelligence] technology, it has reached a certain point where we can actually work with it, it is available, fairly cheap and it works. Those are the reasons why we see such a hype in this area.”

Fras continued to say that other than fraud and customer experience use cases, a challenge exists in data – “data is at the core of everything so getting the data in order, organised and ready for us to play with, is one thing and a huge challenge with our legacy environment.

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 enabling 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.



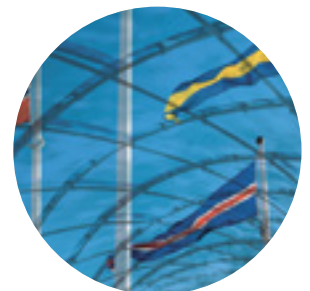
CONCLUSION

The Nordic banking industry will continue to pioneer innovation to personalise and improve customer experience, whilst replacing obsolete models, complying with stringent regulatory frameworks and controlling costs. A combination of executive sponsorship, inspired by credible use cases in an innovative payments scene has driven awareness of the opportunities for the taking in an open banking environment. Fundamentally, however, underpinning this is an inherent trust across the region in government and banking sector.

Collaboration is key, both in terms of services and offerings, as well as capitalising on the mutually beneficial assets between so-called fintechs and incumbents- the former having the agility to innovate and deliver- the latter having the trusted customer base. Partnering is key for both to be able to navigate the regulatory path as well. And as AI, cloud and emerging technologies proliferate into further solutions that enable continuing business and customer insight, industry collaboration will become increasingly important.

The P27 initiative, very much still in the planning, is testament to the vision and conviction of the Nordic region to lead in payments and innovation, staking its claim and building on the developments already achieved.

One thing is for sure, facilitating the opening of the industry requires a shared effort and focus on digital identity, and this is one thing the Nordics markets definitely have. The need, and hence the agility to partner with smaller, more nimble innovators, is crucial and incumbent banks in the Nordics are addressing limitations in this respect. Mainstream banking services are now expected to be smart device native, and to achieve speed to market, banks must partner.



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 offerings 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 solutions 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 networks and clouds, 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.

“At Equinix we are witnessing significant investment and activity among our payments and banking customers to support their digital ambitions. Long-standing industry players are transforming their platform foundations to optimise integration of data, ecosystem partners and clouds. Newer players are learning how to scale and emulate the secure, robust and resilient platforms of the incumbents. Sitting at the junction of old and new, bridging clouds and on-prem with secure and agile interconnection, we have a unique and privileged view of the digital revolution. We’re excited to see the evolution of the ecosystem”

ELENI COLDREY, EQUINIX



10 ABOUT

Finextra

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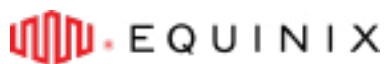
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ABOUT

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.

NOTES



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