



EMERGING PAYMENTS
— ASSOCIATION —

MANAGING A DIGITAL BUSINESS

Report from the EPA's Project Futures Workshop, July 2018

Sponsored by: **FICO** **Decisions**



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FOREWORD

What is the Future of Payments in a Digital World?

Digital innovation is a massive driver but how will the payments industry make the most of the opportunities new technology offers? At the digital futures workshop we sat down to discuss what this technological transformation means and how it can be balanced with the sometimes-conflicting demands from legislation, customer expectation and protection from fraud and financial crime. The debate was lively and far-ranging with such a lot to discuss.

I think it's fair to say that the group were excited to see how payments would develop in the digital world and we hope that this report shares some of that excitement and will help you to shape the part you will play in it. Ultimately, while we can see the direction and understand some of the opportunities and threats that technological transformation offers, the future is not yet written - it could well include a few surprises and some innovations that none of us has dreamed of yet.

At FICO we appreciate the opportunity to be part of Project Futures - it helps us to keep innovation at the heart of our business and understand more about the market we support.

The purpose of Project Futures is to provide members of the Emerging Payments Association with insight and thought leadership on new innovations and technological developments, emerging market trends, and the prospective future regulatory landscape in payments.

The Project Futures workshop in July 2018 addressed the digitisation of payments and how to manage digital businesses.

The focus of the discussion was to explore the disruptive innovations and technologies that are or will be relevant in shaping and managing digital businesses, the impact that these innovations will have upon the payments ecosystem, and the social and commercial drivers which will enable these innovations to flourish. Our discussions were scoped to consider payments product developments and enabling technologies that are already visible or emerging, and which therefore have potential to offer tangible benefits at scale over a 3-5-year horizon and beyond.



The half-day workshop was structured around four sessions on:

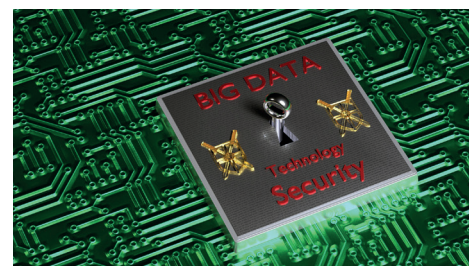
- Technology and regulation trends for digital businesses and structures
- Business and social factors that influence the effective management of digital businesses
- New innovations driving digitisation and the steps to enable their acceptance
- Impact on both consumers and industry of the new digital world

This report is one of a series of four produced by the Emerging Payments Association in 2018. It highlights the content of the discussion, the insights derived and the conclusions drawn. These conclusions highlight the direction of travel for the payments industry as it develops and how the ecosystem will fundamentally change in light of new technologies and innovations.

Thank you to the Benefactor behind this project, FICO, the facilitators and EPA Patron, Consult Hyperon, the consultants at Huntswood and the workshop participants.

THE UTILISATION OF AI, MACHINE LEARNING, AND DATA ANALYTICS

For financial institutions to best respond and react to changing business requirements in the financial and regulatory landscape, they need to have the highest levels of efficiency across all key business units. There is scope for these key activities within businesses to increase efficiency, such as payments processing, customer onboarding, product innovation and time to market, as well as sanctions screening, anti-money laundering (AML) and fraud detection.



The workshop group highlighted that the effective utilisation of artificial intelligence (AI) across these areas could play an increasingly important role. Whilst the implementation of AI within payments so far has not seen mainstream adoption across industry players (with its utilisation primarily centred around AML and fraud detection), the greatest opportunities for addressing operational and business pain points lie in the organisational capability to innovate and create new product offerings and to expedite the time to market. The usage of alternative sources of data, for instance data accrued from social media, will result in richer data sets for providers to use in customer interaction. This should thereby result in more effective marketing of products, development of unique product sets, quicker and easier customer onboarding, and drive real-time automated customer decisions (subject to GDPR requirements). It should be stated that these elements, including the effective adoption of AI to drive customer retention, should all be within an institution's scope for AI deployment.

Businesses need to be very proactive in tackling threats in digital channels, so organisations should also continue to develop the utilisation of AI and machine learning within back-end infrastructure. Increased investment in these technologies should provide greater security and allow an organisation to make better quality risk management decisions, for example through enhanced tools for sanctions screening and customer due diligence.

Whilst there is a lot of potential for effective data utilisation, AI and machine learning to drive impactful business change, the adoption of AI-based services and the incorporation of machine learning into business-as-usual operations will incur an initial steep cost – particularly at present due to its early development. However, the long-term benefit of embracing these tools, reflected in an AI-enabled business strategy, will result in a long-term reduction of financial and resource cost.

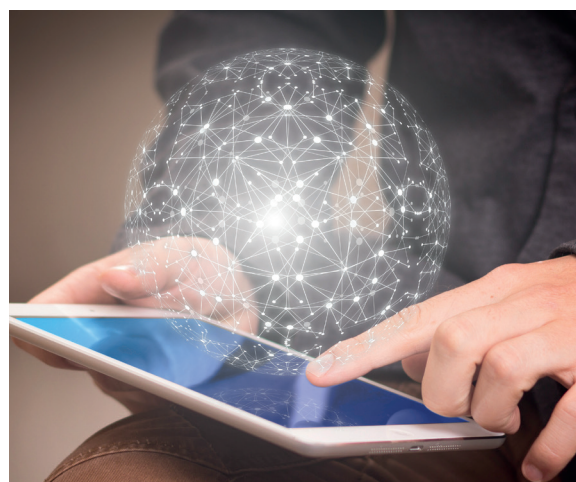
The adoption of artificial intelligence-based services and machine learning tools will fundamentally change the composition of the workforce within the payments industry. Workforces will have fewer employees allocated to customer services and customer management as these roles are likely to be performed by computer/robot-based sources who can effectively deal with customer queries and concerns in real-time through adaptive machine learning. We are already seeing this trend through the fraud detection/fraud prevention operations of large high-street banks and it is likely to continue as a driver of reducing business costs. The human element of the payments industry workforce will instead be skewed towards technologists and developers, and will be a smaller proportion of the overall company's 'work resource'.

OPEN BANKING

One of the impacts of digital with the most potential to change financial services is Open Banking. From the customer's perspective, firstly this enables a customer to choose to share their own banking data with other service providers. Secondly it allows customers to use new payment providers who can trigger payments out of a customer's current account. These two factors will lead to greater choice for consumers of payment services and other financial services products.

An important area of innovation that underpins open-banking services is the creation of 'application programming interfaces' (APIs) that enable the systems of two different providers to talk to each other in delivering a single service for end users. In the UK the Open Banking programme has defined standardised APIs for the industry to adopt; this is critical in making it less complex for service providers to offer services that can access data or trigger payments across a range of current account providers, enabling the service provider to scale up its service more efficiently.

Hence in the Open Banking environment, digital innovation is enabling services offered to end users (consumers, businesses) that run over the top of the established platforms that current account providers operate. The end-user services are 'overlay services', that can be developed in shorter timescales since they plug into the existing underlying account infrastructure via the standardised APIs. A regulatory theme or objective here is to de-couple the payment from the current account, and then encourage more competitors and services in the payment services category.





These overlay services, which can be offered both by new 'FinTechs' and established players, are expected to be tightly focused customer propositions targeted at specific sub-segments of the market, meeting those users' particular needs. Overlay service providers will also innovate in their business models, driving value from the data they can access related to their service, and benefiting from lower development and operating costs as a result of the API access to account platforms. It is envisaged that these services can be profitable at much smaller scale than incumbent full-service banks.

Innovative service providers will, in many cases, have background experience in tech/internet services, which includes agile or 'lean' development methods and rapid testing and upgrading of products. Conversely, these players will not have the depth of experience in financial services regulation and will need to resource this area to ensure they are able to meet conduct and compliance requirements.

From policy and social responsibility perspectives, the innovation in Open Banking will have an impact on 'inclusiveness'. Payments innovators who achieve scale should be encouraged to work with government and third-sector stakeholders to ensure that the needs of all in society can be served through innovative financial services, and that society therefore does not see a split between the groups who actively choose to benefit from service innovation and those who cannot or who are not so aware.

A final point debated was the risk of a trade-off between convenience and security. In the competitive battle for growth of customer base and service usage, providers know that user convenience is a key feature. However, providers also need to implement sufficient steps to protect end users, and to comply with customer due diligence, to protect users, themselves and society from the damaging effects of fraud and financial crime.

DIGITAL IDENTITY

Of critical importance in operating a digital business is knowing who you are dealing with, and this applies in both directions – for the business identifying the customer, and for the customer to know they are dealing with the genuine business.

A widely held view is that improved identity management (verification, authentication, authorisation) is required to underpin digital businesses as they become ever more mainstream across society and central in users' lives. The current model for identifying oneself via a username and password, for a large number of businesses, is broken – with large numbers of users not following good practice; they will choose obvious passwords or write them down (often on a connected device), or will use the same password across multiple different online services.

Providers need to balance convenience and 'frictionless-ness' on the one hand, with safety and security for users on the other. A great user experience needs to be both easy and safe. This applies across all digital businesses, since identity theft can be initiated effectively from a number of sources; nevertheless, it is clear that payment services are at the forefront of this challenge – requiring convenience (due to the frequent and often time-pressured nature of making payments) and security (due to the very obvious and direct impact of theft of funds).

The case for stronger digital identity can be made on positive terms considering 'good actors' alone. More effective identity enables good actors to enrol more quickly to a service, and then to be authorised more effectively each time

they access it. This cuts down on delays, on false positives being checked out, and on repeating earlier checks. All this encourages service take-up and repeat usage, which all digital businesses want. The case for integrating digital identity into the customer experience when paying or buying products has been soundly made in the Nordics.

But, of course, the case for digital identity is also driven strongly by the need to defend against 'bad actors', by the need for safety and security. Weakness in identity management leads directly to key areas of payments fraud; card-holder not present e-commerce, unauthorised access to online banking services, and the current hot topic of authorised push payment (APP) scams. Whilst the latest fraud figures, released by Financial Fraud Action UK (part of UK Finance) in March for 2017, are positive in many ways, the societal and regulatory requirements have not changed. Behind the positive headline that overall fraud, year on year, had reduced by 5%, the data showed that digital channels had still seen an increase in internet banking fraud (+19%), and mobile banking fraud (+11%), whilst electronic channels of card-not-present fraud remained at the same level as the previous year. Meanwhile authorised push payment scams have become a large element of reported losses, being £236 million in 2017, the first year of reporting.

Key considerations that were discussed for how digital identity could develop include:

- Digital identity should increasingly be seen as a vital service for consumers and businesses as they engage in a 'digital life'. Usernames and passwords are a legacy approach. Digital businesses require a market to develop for 'digital identity service providers' as customers understand the value this can deliver. (This can be compared to some extent to the creation from scratch of the market for internet service provision (ISPs) over the last 25 years – i.e. 'freeserve' – as consumers came to recognise that, to engage in online services, they needed to pay for an internet connection to the home).
- Payments are well positioned to be at the forefront of this drive for digital identity. Online payments are fundamental to the growth and success of digital businesses; and on the security side, failure of identity management in payment service leads directly to theft of money.
- A standardised approach to digital identity is highly desirable. Once a consumer has established a secure, strong digital identity, she/he should be able to use that identity service across all payments providers, all financial service providers, and indeed for all online services across sectors. A passport or driving licence is widely accepted in the legacy environment for identity management; we need new digital identity services to be similarly widely accepted.
- Biometrics can play an important role as part of effective digital identity services for a wide range of products and customer groups. A range of options exist with biometrics that can be incorporated in authorisation approaches, including fingerprint, iris scan, voice recognition, or video-based visual identity.
- A standardised identity model frees up innovators to focus on the core service they want to build and sell, knowing that they can adopt a standardised, fit-for-purpose approach for managing identity of the customers they aim to engage online.

THE CUSTOMER EXPERIENCE AND IMPACT

A core theme throughout the workshop discussion was the subject of the consumer and the payments experience. There was a clear consensus that consumers fundamentally want a seamless payments experience, and a simple and quick customer journey. The actual process of making a payment needs to be 'non-clunky' and to have as little friction as possible. Consumers want a tailored customer experience that fits their need, with a simple in-app user interface, and intelligent communication via channels that suit their lifestyle and needs. Individuals within the workshop expressed dismay at some of the poor payments experiences they had endured and how it had shifted their perception of a provider and led them to engage with different services.

Whilst it is clear that consumers want a seamless payments experience, there is a concern regarding the impact increasingly invisible payments may have for consumer spending behaviour – particularly for vulnerable payers. Payments are increasingly becoming less visible, more embedded and automated, and some payments users can lose control of their spending levels. It can also be argued the payments experience and engagement is also being lost, i.e. banks have a consistent consumer engagement from a visible payments process, if this becomes increasingly less visible then they became less front-of-mind.



Fundamentally, to drive consumer adoption, there needs to be consumer awareness and a certain level of consumer education. One key element articulated in the session is that there is a lack of consumer education across the board in terms of payments technology and regulatory impact. However, consumer education is an expensive activity for a business to undertake and can cost many millions to effectively educate the consumer. There needs to be a value exchange in order for a business to actually undertake this. Likewise, the consumer will need to find value in engaging with educational tools in order to adopt new technologies or new practices. Furthermore, there is a desire from the

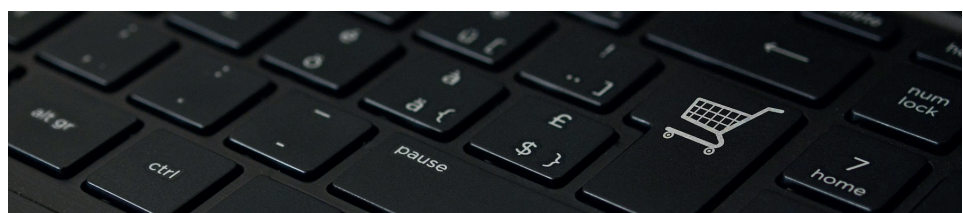
consumer to see a collective industry communication for education on key industry-wide issues and without a competitive focus rather than trying to understand multiple communication efforts not delivered in concert. When evaluating how consumers approach new innovations, it can be said that behavioural change amongst consumers is typically slow. Whether through ways to pay or engaging with new payment services and providers, the shift in consumer adoption is long term, incremental change and may take a generation to see a fundamental change in consumers using new providers (i.e. widescale adoption of a new banking service from one of the current incumbents).

It was noted that regulation is not well communicated to consumers, nor does it particularly have a consumer focus. Furthermore, it can be highlighted that consumers are not very aware of regulation as the means by which regulation is communicated is not consumer friendly. However, there was an open question highlighted during the session as to whether consumers actually need to or want to know about regulation beyond the minimum that impacts their daily life.



KEY NOTES FROM THE WORKSHOP:

- A key element of the consumer experience is trust. The consumer requires trust that the provider will keep their data protected and secure. The consumer needs to trust that the service will consistently work and not suffer from outages. And the consumer, at the most fundamental level, needs trust in the brand. As entities invest more in their back-end infrastructure and by adapting and updating their processes to recognise potential faults before they occur – whether they are an incumbent player or a new entrant – this will drive greater consumer trust and thereby engagement with new digital options
- As Open Banking and new regulations open up new data-driven business models and opportunities, consumers should have greater and more granular control over their data. The recognition of the importance and value of data, enshrined in regulations such as PSD2 and GDPR, should enable consumers to have stronger rights and greater control over their data through the capability to allow or withdraw consent



THE ROLE OF THE BANKS

In a shorter discussion session, the workshop also explored the different strategic roles available as payments and financial services become more and more ‘digital businesses’.

A central theme throughout the workshop was the notion of a sector defining itself with manufacturer and distributor elements. The nature of digital business brings a sharp focus on the distinction of activities between manufacturing and distribution. Manufacturing centres on the creation and operation of a service. Distribution centres on customer engagement, how customers learn about, trial, sign up and then repeatedly use a service and interact with the provider. In payments, digital business is driving revolution in both manufacturing and distribution. New electronic payment services are being created, and engagement with customers is increasingly via online PC browsers and smartphones.

With this concept in mind, it was consistently reiterated during the workshop that payments providers need to be clear in defining a strategy in terms of their position in ‘manufacturing’ and in ‘distribution’ – particularly as these players face a commercial risk to their enterprise, should they not sufficiently adapt to digitisation, changing regulation, and embracing the opportunities afforded by open banking. It is estimated that there are over 6000 banks across the EEA region, of which over 100 can be described as ‘Tier 1 Banks’. These larger players have the capability to span both the manufacturing and distribution elements within the payments industry. For the smaller players, this capability is not possible and so they will have to create a single focus on either the distribution or the manufacturing model in order to be viable.

If a bank looks to focus on the ‘manufacturing’ principle on this model, it will seek to invest heavily in its core payments infrastructure (referred to in the session as a ‘double down on being the plumbing’). This means that these banks will have to invest significantly in updating the current back-end infrastructure. Existing banks’ legacy systems are increasingly at risk of becoming outdated and it can be argued that they are not fit for purpose. The adoption of secure, private cloud-based technologies, either in addition to or instead of the current systems, may prove to be the tool that solves these legacy issues. Improving the back-end architecture will enable banks to become more agile in developing and launching new services, more resilient, and quicker to spot potential faults before they occur.

If a full-service bank can be described as focusing on the underlying infrastructure, then FinTechs can be described as focusing primarily on the overlay services and user-experience elements within the payments landscape. A bank can choose to adapt into this ‘distributor’ principle in the payments sector, and this would mean that they would not have to hold accounts or capital. However, if a bank decides to adopt this approach then it is not clear where liability would sit under this model.

In short, banks need to re-platform across the board – underlying infrastructure needs to be more state of the art and easier to plug into, but they also need to invest in the user interface in order to keep up with new and competing players within the payments landscape.



With thanks to

- EPA Benefactor of Project Futures, FICO
- Project Lead of Project Futures, David Core at Bacs
- Facilitator of the workshop, Tim Richards at Consult Hyperion
- Author of this bulletin, Andrew Ducker at Huntswood

Participants of this workshop listed below

David Core (Bacs) is Project Lead of Project Futures. The workshop was facilitated by Tim Richards of Consult Hyperion. This report was produced by Andrew Ducker of Huntswood. The EPA would like to thank the Benefactor of Project Futures, FICO, for their backing of the project, its workshops, and in helping identify technology and future innovations that will spark a dynamic change for both businesses and consumers.

Work with us to create a better payments industry in future

To join our Project Futures (members only) contact thomas.connelly@emergingpayments.org

To find out more about joining the Emerging Payments Association, contact keri.farrell@emergingpayments.org

Organisations represented

- BBVA
- Callcredit Information Group
- Conduent
- Consult Hyperion
- Consulting Stream
- Emerging Payments Association
- Entersekt
- FICO
- Huntswood
- Manifesto

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