

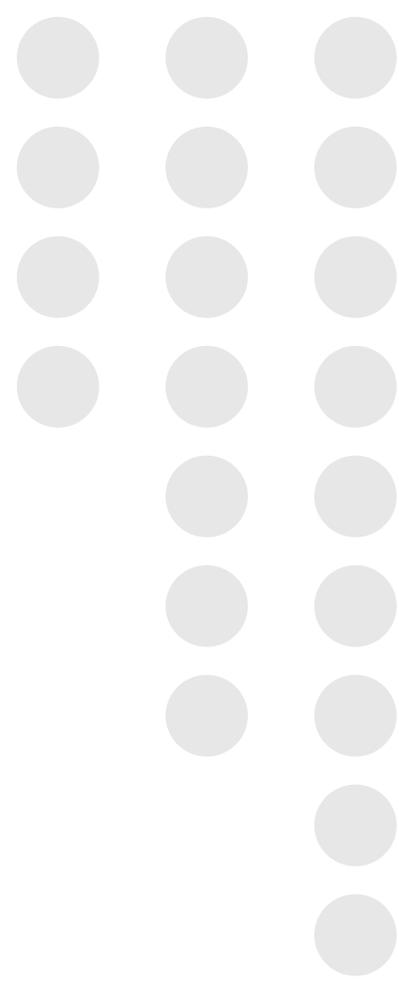
GLOBAL
PAYMENTS
INNOVATION
JURY____2017



AN INSIDER'S
VIEW TO
PAYMENTS
& FINTECH

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About the Global Payments Innovation Jury

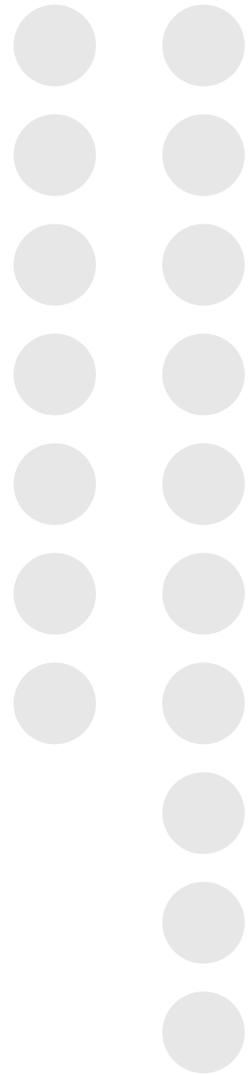
The Global Payments Innovation Jury report for 2017 exists because 70 senior industry executives were prepared to give their time to thinking through and setting out their views on many complex issues determining how payments innovation happens. The 70 jurors come from 37 countries across 6 continents which is the highest participation ever; all the jurors are involved at a senior level with highly successful businesses ranging from payment service providers, card schemes, processors, merchant acquirers, technology providers to mobile money operators. 46 of the 70 jurors currently hold or have recently held the title of CEO with the remaining 24 being 'C level' executives. Many of the jurors not only have responsibility for a significant national market, but also have direct responsibility for regional or global business as well. On average, each juror has responsibility for payments in 20 markets so their involvement in and influence on the global market is immense.

Acknowledgements

The Global Payments Innovation Jury takes place because of the generous sponsorship of four organisations - ACI, Currencycloud, Ixaris and WorldRemit. All of these organisations are actively involved in changing the payments market but also believe that the wider understanding of the innovation process created by the Jury is of benefit to the industry.

Greg Boudreaux and Asad Mushtaq were very helpful in defining the issues on which the 2017 Jury should focus.

The Missive team in London have also contributed their extensive knowledge of the fintech environment and have been responsible for the global organisation of the Jury initiative from the start of planning in mid-2016 through to the creation of this report.



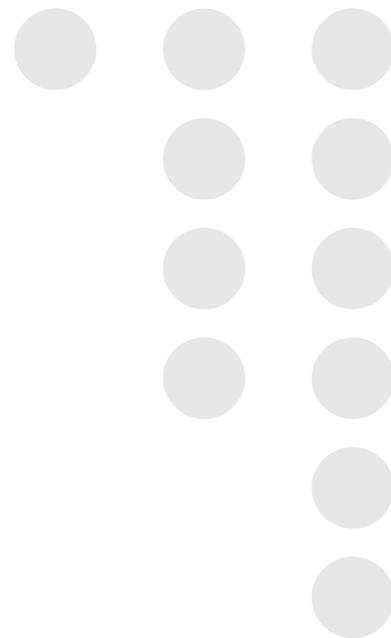
Introduction

Payments continues to experience continuous innovation worldwide, with established players trying to defend and grow their existing business and new market entrants aiming to grab a share of the market for themselves. Although operating margins are under pressure, the payments sector remains attractive because the market continues to expand and there is opportunity to secure a share of gross transaction value for many players. But the essential currency for payments now seems to be innovation, with the vast majority of players subscribing to the 'innovate or die' philosophy.

It is often impossible to get a clear and consistent view of how payments are evolving worldwide. The Global Payments Innovation Jury has provided a consistent view on this evolution every two years since 2008 when innovation was much less of a hot topic. The 2017 Jury, comprising 70 successful payments executives from 37 countries, has looked at many aspects of the worldwide industry and given its considered views on how innovation is occurring and bringing about change.

The top findings of the Jury:

- Asia is the clear leader in payments innovation. This goes beyond a 'China effect', with many other countries in the region modernising their payments infrastructures and creating environments supportive of innovation. Europe has finally moved away from the bottom of the league table, largely based on the new regulatory environment but the Jury reserves judgement on whether the hoped-for changes will materialise.
- For venture capital backed companies, there is a shortage of growth stage finance globally mainly because the road to profitability in payments is more difficult than most business plans assume. Despite the growth capital shortage, direct investment by banks in payments companies is not seen by the Jury as a popular strategy. For companies that achieve profitability and growth, there is no shortage of private equity finance to fund an exit as well as IPO for the real stars.
- In developed markets, investment in B2B payments is generally preferred over B2C because of the major marketing investment required to build a substantial consumer user base and the difficulty in convincing users to pay for services in markets used to 'free of charge'. However, in developing markets, the sheer size of the underbanked market still makes B2C and P2P investments more attractive.
- The Jury sees two main reasons why payments startups don't succeed. 'Fail to scale' is a major issue with many business models not being adaptable to higher volumes. And many new market entrants don't offer any significant advance on what is already available, instead offering 'solutions in search of a problem'.



- Partnering between established firms, especially financial institutions and startups, is happening more often in all regions and is increasingly seen as a win-win. The jurors who have experience of creating such partnerships believe that the time and effort required is widely underestimated.
- At a time of great excitement about AI unlocking the power of data, this is still seen as an area of missed opportunity for the payments industry with lack of an overall data strategy being reported as the major reason for most firms missing the target.
- In terms of the disruption from new business models, the Jury sees traditional cross-border remittance providers at most risk, followed by established payment service providers for online commerce.
- With most payment regulators and central banks actively supporting an innovation agenda, it is disappointing that the Jury believes innovation is more likely to be impeded rather than encouraged, suggesting that regulators need to rethink their approach in some markets.
- The Jury see Open APIs as important enablers of innovation especially in a world of in-app payments and, in the future, transactions from Internet of Things devices. However, the Jury does not see this as risk-free and has concerns about who gets blamed by the consumers when things inevitably go wrong. The Jury makes the point that APIs are a business strategy that require proper management and not just a technology.
- As mobile technology becomes central to financial services and payments capability, the Jury believes that in developed economies, bank wallets and single merchant wallets are generally not going to do well. In developing economies, the Jury sees the top priority as interoperability between MNO provided wallets and the banking sector to avoid network duplication which raises costs for consumers and merchants.
- The current large investments in real-time ACH systems can become a significant factor in more credit-push transactions from mobile but the Jury believes that unless the user experience is slick and there is an effective mechanism for preventing and disputing fraudulent transactions, predictions of a major loss of market share for the card model are overdone.
- Previous juries have had a good track record in detecting hype. This time, the Jury has selected distributed ledger technology for the award, not because jurors don't see the real potential for the technology but because the extent of the claims being made by its advocates seem to be too extreme.

It has been a privilege and pleasure to work with 70 such knowledgeable and insightful professionals for the 2017 Jury. In collating and analysing their input, I have come to understand much more about our payments industry and how it is being changed by innovation.

John Chaplin

*Chairman, Global Payments
Innovation Jury*

1

The Global Picture



Innovation in payments has increased in pace since the Jury was last convened two years ago. Across the world, there is a higher level of focus on innovation, driven by a combination of startups entering the market and established businesses digitising as fast as possible. Yet, while innovation is steadily increasing across the globe, the direction it takes varies significantly from region to region.

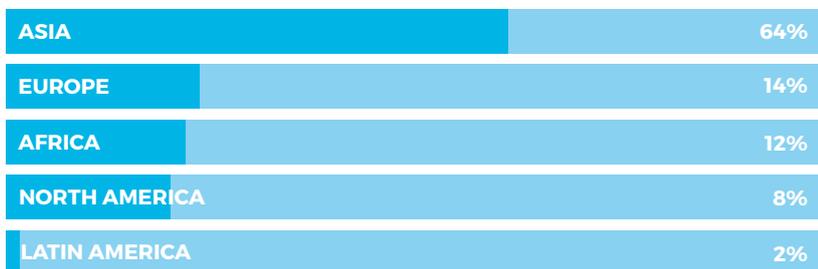
Which region will innovate most in payments in the next two years?

By a very substantial margin, the Jury rates Asia as the home to most payments innovation over the next two years, a position that it has held since the inaugural 2008 Jury. However, the 2017 Jury sees the innovation leadership position of Asia as being stronger and more entrenched than previous juries.

Europe takes the second spot this year, leapfrogging Africa, North America and Latin America which took third, fourth and fifth positions respectively. Since 2008 Europe has been at the bottom of the table for innovation potential so this is a notable change. Africa, third this time compared to second in 2015, scored strongly and again ranked above the USA. Given that there are funding issues for fintech and payments companies in Africa, this result is striking. The USA, if measured on dollars invested and press coverage of innovation, should be the equal of Asia, but lags well behind and many jurors commented that ageing infrastructure is holding the country back.

CHART 1

Home of most payments innovation in next two years



Global Jury view on the top region for innovation.

JURY COMMENTS

“The Asian and African markets present problems which payments innovation must address while other markets are quite comfortable with current payments evolution.”

“Africa and Asia don’t have legacy systems to slow them down so innovation is more a need than a nice to have.”

“Asia has the biggest potential and the need. Africa has the need but may not be seen as a big enough market by global providers. LATAM is ripe for more innovations but can be a very hard region to work in.”

“USA is way behind on payment innovation because reluctant incumbents on both the merchant and banking side have favoured legacy over new tech.”

“Whatever is done in Asia will scale, what is being done in Africa will leapfrog “common” use cases already prevalent in Europe and North America.”

Why is Asia thriving?

The fintech boom in Asia is well documented and continues to go from strength to strength. China is clearly intent on being the global fintech leader; India is acting as the other regional power house, with an aggressive payments modernisation and innovation agenda driven by the NPCI. Smaller markets such as Hong Kong, Malaysia and Singapore are rapidly modernising their payments infrastructures and are also aiming to be significant players in fintech, with Singapore showing the way.

The opportunities in the region are widespread due to the rapid population growth, high willingness to accept new technology and the sheer size of the market opportunity to convert from cash to digital payments in economies where the reach of traditional banks is limited. The value of mobile payments in China alone in 2016 was estimated at \$5.5 trillion US\$¹ – 50 times more than the value of mobile payments made in the USA.²

Why is European innovation improving?

As one of the most mature regions for electronic payments and with many outdated payments infrastructures, Europe has never been well rated by previous juries, being regularly bottom of the league table. However, the 2017 Jury sees some grounds for optimism. A more progressive regulatory environment, several innovation hotspots such as Berlin and London and some evidence that previously apathetic consumers have a greater appetite for change are shifting the regional dynamic.

More than 600 startups launched in London alone every day in the first six months of 2016³. Added to this early-stage activity is the fact that Europe is the headquarters of choice for many established global payments businesses. Both are indicators that Europe is proving a stronger home for innovation. Within the region itself, jurors commented that the Nordic countries, Central Europe and the UK are responsible for a very large share of the innovation with other markets not performing so well.

The impact of regulation in encouraging the European innovation agenda cannot be ignored. The Payment Services Directive 2 (PSD2), set to be enshrined in EU member state law by 2018, has the intention and potential to improve innovation but, as several jurors noted, the potential has yet to be turned into reality.

JURY COMMENTS

“China is generations ahead of anyone else in this respect; the implications of being the world’s largest ecommerce market are enormous.”

“Asia continues to be the world’s payments petri dish, with providers from all over the developed world using it to launch and test innovations.”

“Asia is simultaneously progressing ACH underlay and digital overlay solutions which gives a real impetus to innovation.”

“In Europe PSD2 and real-time payments will create a surge of innovation that will start in 2018 and run for several years.”

“PSD2 in Europe is opening up a lot of opportunities for new services and payments is just one part of it.”

“It is always more difficult to change markets that have entrenched business models so the new European regulations may not achieve so much especially as we are starting from a very fragmented position.”

Which payments sector offers the most profitability?

The Jury is split when considering whether B2B or B2C models offer the best profit potential but overall it comes out in favour of B2B payments.



There has been substantial change in the way consumers pay over the last few years, with people increasingly using their phones for financial transactions and taking advantage of features such as in-app payment capabilities and social shopping. However, overall the Jury considers the business payments sector to have the best profit potential going forward.

There are a number of reasons cited by the Jury for its overall preference for B2B models. B2C businesses typically operate a low-margin, high-volume model - something that is challenging to grow to profitability. A real problem for B2C business models is that in many markets consumers expect that payment services will be provided free of charge. Creating, and then retaining, a large consumer user base can require extensive investment in marketing which is simply beyond most startups.

In contrast, the majority of jurors believe that B2B payments firms tend to deliver a service for which it is easier to build a profit margin. This is because business customers are more used to being charged for payment services and because, to date, there has been less intense competition in the B2B payments market.

JURY COMMENTS

“B2B payment flows are larger, and revenue per customer is much higher than for B2C. Moreover, B2B has not had as much innovation in recent years as B2C so there are still a number of big juicy inefficiencies to go after.”

“Although B2C/P2P have huge potentials, those focusing on B2B have been able to show more credibility and traction.”

“Consumers are largely unwilling to pay more for payments whereas businesses are willing to pay for payments methods that encourage the consumer to buy.”

“Consumers are hard to acquire and hard to retain. It’s much easier to have a path to sign up businesses.”

“B2B has better profit potential however there is a lack of appreciation in many markets for this and our local banks are still trying to do it with legacy solutions.”

This growing confidence in B2B is reflected in deal data across the technology sector. Between March 2015 and March 2016, according to PitchBook, investments in business technology were up 40 percent to nearly US\$12 billion. Although investments in consumer technology were at a higher absolute level (US\$24 billion), this was down nine percent on the previous year.

Specific examples of the rising popularity of B2B investment can be seen in GV's £20 million investment in Currencycloud earlier this year and in the success of Taulia, TraxPay and GoCardless, which have respectively raised US\$46 million, US\$15 million and £13 million in recent funding rounds.

Consumer payments offers best profitability for companies in Asia, Middle East & Africa.

Although globally B2B is seen as offering the best profit potential there are significant regional differences of opinion.

Jurors in Asia, the Middle East and Africa believe that consumer payments provide the biggest opportunities in their markets.

Consumer payments are seen as the major opportunity in these countries because there is still so much potential to put financial services and payments instruments into the hands of unbanked consumers for the first time, facilitated by increasing mobile phone and broadband penetration.

Indeed, innovators in these markets may find the path to B2C profitability smoother than in more developed markets because they are not trying to build on top of or work around ageing legacy systems. Paytm in India has built its own ecosystem and thus has been able to move quickly in a market that often does not move very fast.

Some Jury members sounded a warning about the potential negative impact regulators in developing markets may have on innovation. Jurors expressed concerns that central banks in some markets, with an understandable objective of lowering consumer prices to boost financial inclusion, are introducing strict controls on consumer payments pricing. This risks destroying the business case for innovation by substantially reducing profitability.



JURY COMMENTS

“In India the largest opportunity is clearly in the consumer space; it is the same in Africa and LATAM.”

“There is huge potential for P2P in the African market because it is usually the first service used by unbanked customers. But profits will be slim so only a few companies will succeed.”

“The Moroccan economy is 95% of SMEs which are often family owned and poorly structured so B2B payments potential is very limited. Therefore, the focus is still on B2C and P2P where there is a big job to do.”

Where would jurors base their next payments business?

Jurors were asked where they would prefer to establish their next payments venture. Almost half (47%) stated that, irrespective of where they are currently based, Asia would be their preferred location if they were starting a payments business today. With success stories from bKash in Bangladesh, Alipay in China and Paytm in India, and the commitment of central banks to the modernisation of payments infrastructures, Asia is not surprisingly seen as the most attractive market.

The Jury ratings and comments suggest that much of the effort in the fintech hubs in Europe and USA is being directed towards opportunities in markets like Asia and Africa. Entrepreneurs in Europe and USA are very active in payments innovation but it seems that they are not so convinced that the best business opportunities lie within their own geographies.

JURY COMMENTS

“There is a company called TagPay, that is a French business but they exclusively sell mobile solutions to clients in Asia, Africa and LAC. They don’t seem to be present in the European market at all. There will be more and more companies like this.”

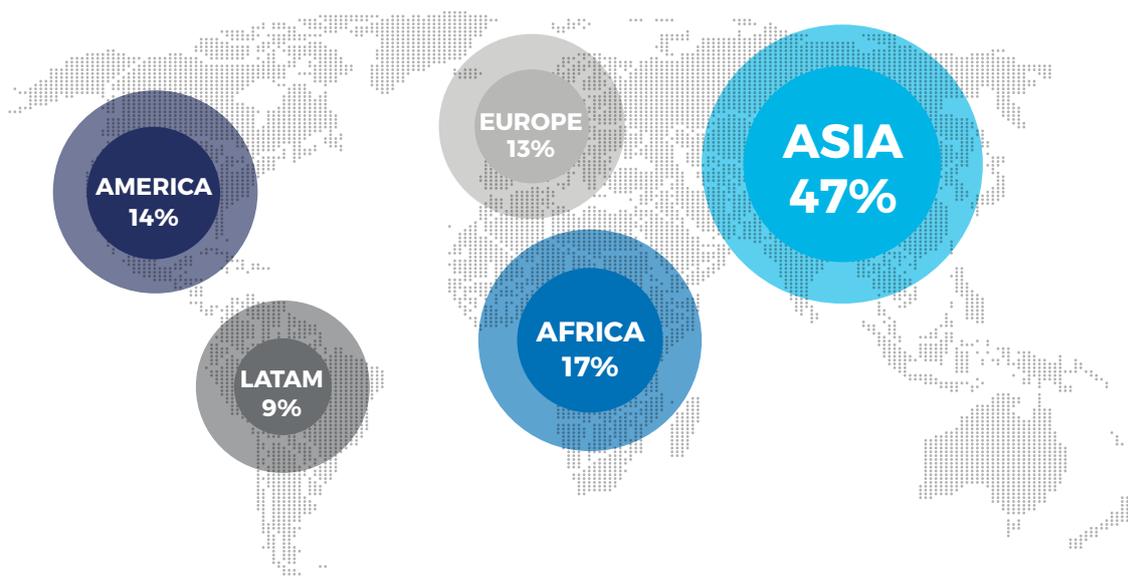
“Emerging markets but not North America or Europe. I would not invest only in payments though... payments to lead to financial services (credit) and banking.”

“South East Asia - economically young, large new middle class, underdeveloped infrastructure, high growth rates.”

“In Africa, the potential is enormous and the market is still virgin. But you need to be patient.”

CHART 3

Best region to start a payments business today



Global Jury preferred region if they were starting a new payments business.

2

Investment, growth and exit: the life of a payments startup



The Jury consists of senior executives from a cross-section of payments firms, from startups that have made it through to some of the largest payments companies in the world. Later in the report, trends in collaboration and competition are identified as well as how the ecosystem adapts to deliver innovation. Startups play a vital role in payments industry innovation but the Jury considers how easy or difficult is it to get a new firm up and running.

How much funding is available for payments startups?

Investment continues to flow into fintech companies. For 2016, Financial Technology Partners reported that financial technology companies around the world raised a total of US\$36 billion in financing from over 1,500 funding deals. More than one third of this figure was invested in payments, loyalty and e-commerce startups (US\$13.5 billion)⁴.

This level of investment makes very encouraging reading for fintech companies operating in the payments sector, however the Jury highlights that attracting investment is more difficult in some markets than others, and also at specific points in the lifecycle of a business.

JURY COMMENTS

“Later stage funding almost always comes from North America and Asia these days.”

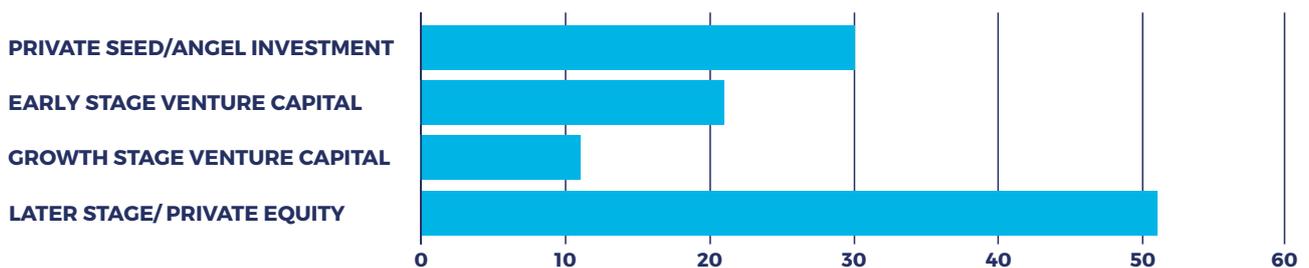
“Funding in general has improved significantly during the past ten years. Large corporates and successful individual entrepreneurs play an important role.”

“Access to earlier stage funding is far greater than the availability of VC funds ability in Europe to follow. VC’s in Europe often lack operational expertise and payments industry knowledge.”

“Series B to C is very hard in Europe.”

CHART 4

Funding availability at stages of business growth



Global Jury view on funding availability at different stages of business.

4. These figures include the record \$4.5 billion US\$ raised by Ant Financial, the digital payments arm of China’s Alibaba, in a single Series B funding round in April 2016.

The Jury reports that on a global level, the picture is of a marked shortage of growth stage capital for payments companies in all regions with a third of the jury describing it as poor/very poor.

This relative lack of growth stage funding can be described as the 'funding valley of death' for payments firms. While early stage funding is seen as fairly obtainable and late stage funding even more abundant, there is a growth stage struggle in most markets.

Payments companies generally take longer to get to profitability than other fintech verticals because of the need to achieve high volumes. The sector is characterised by companies that received early stage funding when optimism was high but couldn't then accelerate enough to get to profitability. Consequently, many VCs now have longstanding investments in companies that are not doing so badly that they will fail but also cannot become self-sustaining. This creates 'teenage zombies', businesses that stagnate as mid-sized firms which are being drip-fed just enough funding to keep them going.

For those companies that make the breakthrough to profitability, the Jury believes that there is no shortage of later stage finance available, with payments being seen as an attractive investment proposition by private equity firms.

A lack of investment in Middle East & Africa

Of course, availability of investment varies from region to region. While growth stage capital is a global challenge, the Jury believes that it is particularly difficult for payments startups in the Middle East and Africa to access early stage funding.

This lack of availability can become a major impediment to innovation. Globally, 41 percent of jurors describe access to early stage funding as 'good' or 'very good', but in the Middle East and Africa, this figure is just 8 percent.

This suggests that there is a strong need to develop new funds or explore alternative funding models, such as partnerships and collaboration with established firms.

On a more positive note, 75 percent describe the availability of later stage and private equity funding in the Middle East and Africa as 'good' or 'very good', compared to a global average of 56 percent.

The main challenge for private equity funding in developing markets tends to be that the companies and investment opportunities are smaller than they would ideally be and that considerable currency risks have to be managed.

JURY COMMENTS

"There are no local investment funds interested in payments in Vietnam. So we are totally dependent on overseas VCs."

"The typical return on investment hurdle rates present a challenge for many significant payment sector innovations as timeline to scale in market is typically longer."

"Lots of late stage PE funding available given ability to create 'roll ups' through acquisition and create a larger company."

"The availability of funding by local African investors remains poor. There is no incentive to compensate the high risks of a non-mature market."

"It is a shame that there are not more early risk funds available in Africa and the amount of money required for startups to gain traction is often challenging."

How beneficial is bank investment in startups?

There is an increasing level of activity among banks and traditional payments firms when it comes to collaborating with, investing in, or acquiring payments startups. For a startup, a direct investment by a bank can be seen as a vote of confidence by a major market player and therefore an indication that the company is gaining real traction.

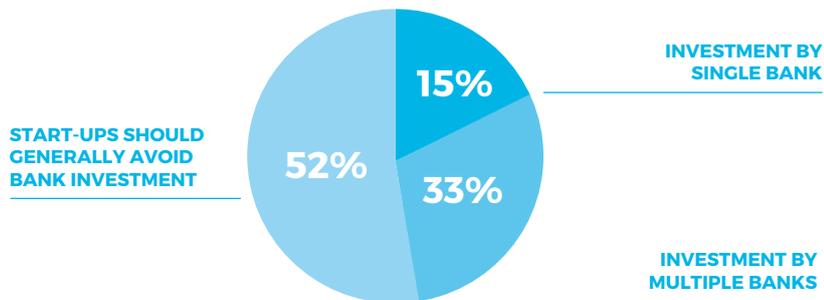
The Jury was asked whether direct investment by a financial institution is likely to be in the long-term interest of startups.

More than half of the jurors (52 percent) believe that startups should avoid bank investment altogether if they want to maximise their long-term enterprise value.

Bank shareholders may try to impose a more conservative approach on the fintech and there is also a risk that the exit may become complicated. Generally, financial investors prefer that fintechs don't take direct investment from banks. However, the reality is that some banks may make investment a requirement when partnering with a fintech as a way to limit their risk. In this situation, the Jury believes that it is more desirable to have multiple financial institutions invest rather than just one.

CHART 5

Type of bank investment most beneficial to startups



Global Jury view on attitude to direct bank investment in startups.

JURY COMMENTS

“Bank investments are okay if they accept no special rights compared to other investors. The problem is that this is typically not the case, therefore often we don’t take their money.”

“In LATAM, this is a difficult balance - a single bank gets credibility and scale but frequently will not allow subsequent selling outside of its own operations.”

“Banks are short term thinkers and do not generally look at the long term growth or have faith in the base of the pyramid.”

“Banks can provide great distribution, but are unlikely to be risk-supporting shareholders. They also have mixed incentives, and even where the M&A people at the bank might see the logic of a partnership, executing within the bank’s established governance may limit the benefit behind the intent.”

“Research tells us that consumers trust their bank so bank investment in a venture gives credibility. Banks can also play a critical role in helping to educate a large number of consumers and the overall market.”

Despite the Jury's caution, many banks are active investors in fintech and there are some striking examples of banks playing a major role in the financing of startups across the globe. bKash in Bangladesh is one of the most successful mobile money operators worldwide and it was launched in 2011 with the initial investment by BRAC Bank. Subsequently, additional investors such as International Finance Corporation (IFC), a member of the World Bank Group, also invested, but the key initial investment was by the bank. Yandex.Money in Russia – the largest payments provider in the the country with more than 30 million accounts – existed for approximately 10 years as an offshoot of Yandex before Sberbank invested in 2013 and made its banking infrastructure available as part of deal.

Perhaps in response to the industry caution about direct investment, a number of banks have established dedicated venture funds. Santander Innoventures, Santander's £200 million corporate venture capital fund, is a prime example of this.

What are the key reasons payments startups fail?

The inability to scale is the biggest reason payments startups fail, a key challenge that was also cited by the 2015 Jury. Innovation is a risky activity and failure is an inevitable part of the process. Although failed companies usually point to funding shortages and/or regulatory change, the Jury concludes that there are two standout reasons for failure. The Jury believes the inability to scale is the biggest reason payments startups fail, a key challenge that was also cited by the 2015 Jury.

JURY COMMENTS

“Bank investment can work really well if the investment is such that the start-up still has a good level of independence and they can grow outside of the banks (in parallel).”

“A bank investor will probably require a ‘right of first refusal’ in a sale process thereby scaring any other potential buyer away.”

“The biggest reason for startup failure is a lack of brand recognition and trusted access to the market, so support for a start up from an existing infrastructure is very helpful.”

“It is almost always harder and more expensive to acquire customers than anticipated at the outset and so the unit economics are extremely challenging.”

“Often a company is successful on a small or one market scale, however once it crosses borders - especially if it is a face to face solution - the complexities and regulations restrict its ability to expand.”

CHART 6

Key reasons that payment startups fail



26%
UNSCALABLE
BUSINESS
MODEL



21%
NO ADVANTAGES
OVER EXISTING
SOLUTIONS



15%
REGULATION



14%
INSUFFICIENT
FUNDING



13%
TOO MUCH
COMPETITION



11%
SKILLS
SHORTAGE

Global Jury view on why payment startups fail.

Generally, this takes the form of a business that works well with a limited group of customers but cannot easily be expanded to a broader customer group, or a business that works well in one geography but cannot be expanded to other markets without being totally rebuilt. Difficulties in scaling IT systems have become much less important as cloud services have proliferated, thereby often exposing more fundamental flaws in the business model.

The second standout reason, as seen by the Jury, is that many new businesses do not offer any significant advantages over existing solutions. Many jurors commented that frequently they see B2C payments solutions that are 'solutions in search of problems'. Some early adopter customers may like a new solution but the broader market frequently has no real desire to change from established payment solutions.

Growing up: What is the most likely future of a successful payments startup?

Most startups must have a plan to create liquidity for investors, especially as operating as a private company longterm is rare and exit to the public market by IPO continues to be mainly reserved for larger companies like Nets, Square and WorldPay.

The Jury sees acquisition by established payments players - large payments companies and major card companies, such as ACI, American Express, FIS and Visa - as the best exit option.

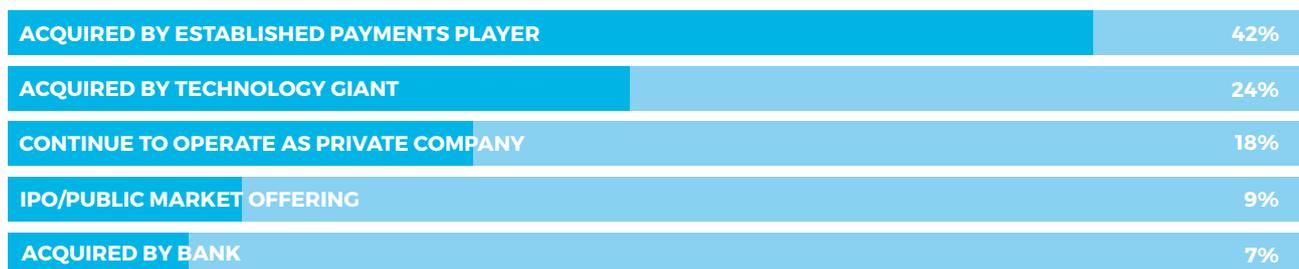
JURY COMMENTS

"As an independent B2B provider, we struggled to convince large companies to deal with us because we didn't have a great balance sheet. Until we got through that, an early exit seemed the only way out"

"It's not so much that there no advantage over existing solutions, but rather that the advantages may not be valued by customers. Simply saying that you provide better security or are a little more convenient is not enough."

CHART 7

Most likely future of a successful payment startup



Global Jury view on most likely end game for most payment startups.

These companies are under pressure from their customers to deliver innovative solutions so they need to actively pursue innovation agendas. As large organisations they can tend to find internal innovation difficult, so 'buying-in' innovation from the outside makes good sense. The acquisitions by ACI of Pay.On and by First Data of Clover are clear examples of the trend to 'buy-in'.

An exit to a large established player also addresses several issues for startups. Irrespective of how good the startup's technology is, it can be difficult to convince potential customers that it is a viable business partner. Established players are often already integrated with payment infrastructures and have a good understanding of regulatory requirements around the world. The ability to benefit from an already existing sales and marketing organisation to address a substantial customer base can turbocharge the growth of a fintech.

The next most likely exit option was acquisition by a technology giant, such as Amazon, Facebook or Google, all of which are building capabilities in the payments market. The 2015 Jury rated these technology giants as the top exit prospects, so perhaps the lower rating in 2017 reflects the greater competition for fintech companies by the established payments players and somewhat of a cooling towards payments by the tech giants as they find the payments market not as easy to dominate as they first thought.

Finally, as was the case in 2015, the Jury believes that acquisition by banks is the least likely end-game for successful payments startups. For most industry innovators, exit via bank acquisition is not normally the preferred option because of the risk that the bank culture will kill the innovative approach that made the startup attractive in the first place. However, some notable deals, such as the acquisition of Simple by BBVA and of Fidor by BPCE, show that at times this is an attractive exit option.



3

How established firms are responding to new market entrants



As new players enter the payments market, there are few that generate genuinely incremental transactions. Most are offering an easier or cheaper route aimed at taking payments volume away from established channels. Mobile money providers that bring previously unbanked consumers into the electronic payments world are the obvious exception as cash should not be considered as an offering owned and provided by an entity.

While in most areas new providers are not yet stealing a significant share of the overall market, the Jury considered which types of existing payment firms are under the most threat and how they are responding.

Where are established firms under most threat

According to a small majority of the Jury (23%), established payments firms are most under threat in the area of cross border consumer remittances. In spite of World Bank targets for cost reduction, the pricing of many established players remains stubbornly high at an average of over 7 percent and in many cases services are still slow. The informal hawala networks are being targeted by the authorities, especially in the USA, because of the opportunities they present for terrorist financing.

CHART 8

Established payment firms most under threat

CROSS BORDER CONSUMER REMITTANCES	23%
ONLINE RETAIL PAYMENTS	21%
DOMESTIC P2P PAYMENTS	17%
IN-STORE RETAIL PAYMENTS	14%
DOMESTIC SME B2B PAYMENTS	14%
INTERNATIONAL B2B PAYMENTS	11%

Global Jury view on payment types under threat at established firms.

JURY COMMENTS

“It is disruption rather than substitution. New entrants often serve underserved use cases using new tech, and so create a bridgehead to then attack profitable, well-served markets like online retail.”

“Fintech innovation coupled with regulatory developments such as PSD2 in Europe mean all payment types and methods are subject to disruption. Existing profit pools will probably determine sequence of disruption.”

“New entrants in Brazil will be hard pressed to displace the entrenchment that the bank and bank consortiums represent.”

“International remittances drive huge revenues for the established players because of high fees charged to customers. New entrants have significantly lower costs and can massively disrupt on price.”

Comments from the Jury support the belief that there are three reasons why established remittance providers (principally banks or specialist providers such as Western Union) are threatened by disruptors:

- The market is large enough (GSMA estimated that global remittances were US\$581.6 billion in 2015) and still growing.
- Customers are used to paying for a service.
- Innovative business models can lead to significant cost reductions which can in turn be passed on to customers. Azimo, Transferwise, WorldRemit and Xoom are just some of the companies making major in-roads into the market.

Online retail payments ripe for change

Over a fifth of the Jury (21 percent) also feels that incumbent payments providers are under threat in the online retail payments space.

As with international remittances, the online retail payments market is large and growing. Internet retailing is predicted by Euromonitor to account for 13 percent of total global retail sales by 2021, up from 9 percent in 2016. This represents significant potential.

The reason that the Jury see a threat to existing providers in this space is that online retailers are particularly keen to have a low friction payment process so that as few sales as possible are lost.

The Jury sees the threat to existing payment providers arising in two ways:

- Current card payment experience is often poor, leading to many abandoned transactions. This creates opportunities for new organisations to make market inroads by making card payments easy to implement and slick to use. Companies such as Adyen, Square and Stripe fall into this category.
- The card payment instrument does not suit the online retail environment nearly as well as it fits instore retail. Despite the effort of the card networks to make their products more fit for purpose in online retail through tokenisation, there is significant opportunity for alternative payment types to build significant market share. Mobile wallets have yet to make major gains in market share in most countries but Klarna in Sweden (and its Sofort acquisition in Germany) and iDeal in the Netherlands have shown that it is possible to establish a major presence in online retail with non-card solutions.



JURY COMMENTS

“Traditional POS terminal volumes will drastically be siphoned off by online providers especially in the large retailer space where the latter want omnichannel solutions.”

“The scale of online commerce is so large that it is pulling with it huge payment companies that can dedicate themselves to just that need.”

“Payment cards are under considerable threat from alternative payment types and PSD2 in Europe will exacerbate this threat. But I think the vast majority of in-store and online retail payments will end up on existing bank card rails for some time.”

How can established payments players innovate

Given the increasing size of the global payments market across multiple areas and more intense competition, established payments players, especially financial institutions, see an imperative to innovate in order to grow – or simply retain - their business. The Jury believes that established payments companies should not see nimble startups as a threat, but rather as a partnership opportunity.

By a large margin, the Jury believes partnering with innovative startups is the best way for established payment firms to innovate because it can be a win-win scenario.

Acquiring innovative startups is seen by the Jury as the next best option, although they do believe that this applies more to payment technology companies than to banks. Acquisition of innovative companies by established players always creates a risk that the cultures of the organisations will clash and that eventually value will be destroyed rather than created.

The 2015 Jury also highlighted partnership and acquisition as the best way to approach innovation but this time the Jury shows an even stronger preference for the partnership approach.

The data indicates that innovation activity in established payment firms is on the rise, often because they are bringing in talent from other organisations. The Jury feels that, while a number of internal actions can create a more supportive positive climate for innovation, ultimately innovation is not normally likely to be driven internally.

JURY COMMENTS

“Disruption in payments is far harder than it looks.... after a few notable failures and the inevitable fading of media hype, I think there’s a more pragmatic atmosphere of partnership and interoperability.”

“Collaboration is more out of weakness on both sides than strength. Incumbents can’t keep up the pace of innovation and upstarts can’t get enough traction in the market.”

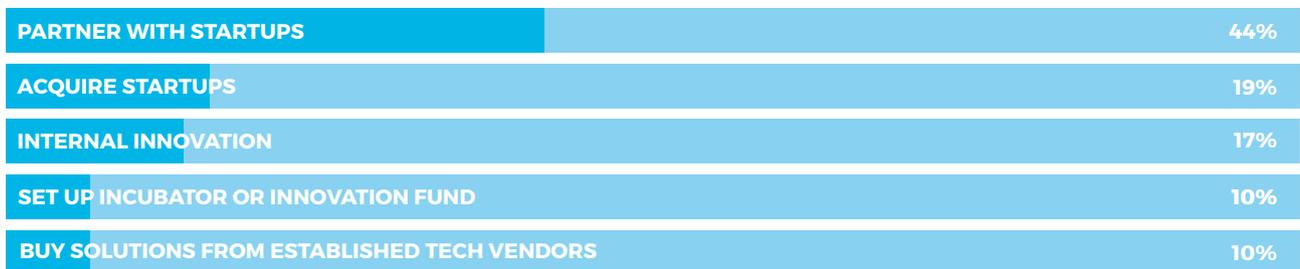
“Dragging the established players forward remains difficult although they are clearly more aware they have to move forward and collaboration with start-ups seems like the best bet.”

“There is lots of talk in the industry that mostly feels like PR to make financial institutions look “cool”.

“Some of the wilder ideas have been and gone and there’s a realisation that size is important.”

CHART 9

Best innovation model for established payment firms



Global Jury view on best route for established firms to innovate.

What are the inhibitors to collaboration

The Jury is clear that partnering with fintechs is the best approach and jurors see evidence from their own markets that this is happening more frequently. Almost three quarters (74 percent) of the Jury state that there is a higher level of collaboration than three years ago.

However, while being clear on the theory, the Jury points out that there are common stumbling blocks to overcome to make these partnerships successful in practice.

At the business/product level, commercial diligence is a key concern. Given that the financial services industry is heavily regulated and scrutinised, due diligence can be extensive and a USA juror stated that for their bank to partner with a fintech, a due diligence checklist requires producing documentation for upwards of 75 items. For a startup used to operating a lean business model and making decisions quickly, this information gathering process can be laborious to comply with.

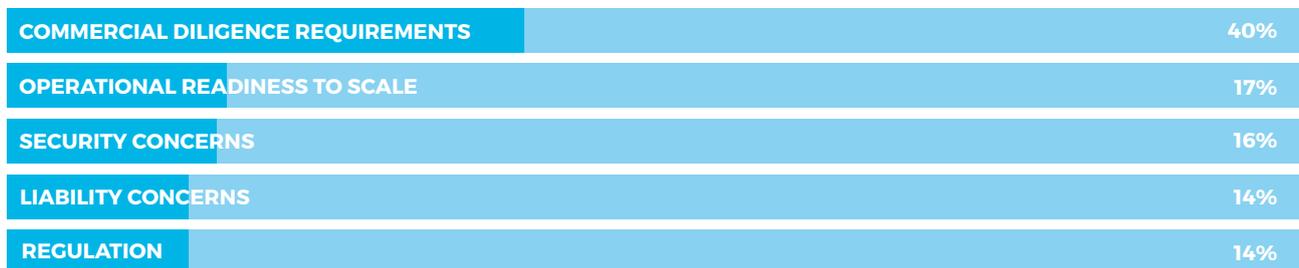
JURY COMMENTS

“There are clear advantages in collaboration but the increase in numbers of participants means there are ‘more mouths to feed’. Current transaction economics, act as a major constraint.”

“As an established provider, we are one of those firms that should be doing collaboration deals and we are. But getting deals done is tough given our internal processes. We can only take on two deals a year.”

CHART 10

Biggest inhibitor to collaboration



Global Jury view on biggest inhibitor to collaboration between startups and established firms.

Increasingly, regulators require that financial institutions ensure that their partners and suppliers conform to the same standards and processes that apply to them. This can be a major issue for a lean startup planning to partner with established firms.

Within the financial institutions themselves, the Jury believes that the product and business development teams are often keen to collaborate but are slowed down by the risk and compliance teams who insist upon a rigorous process.

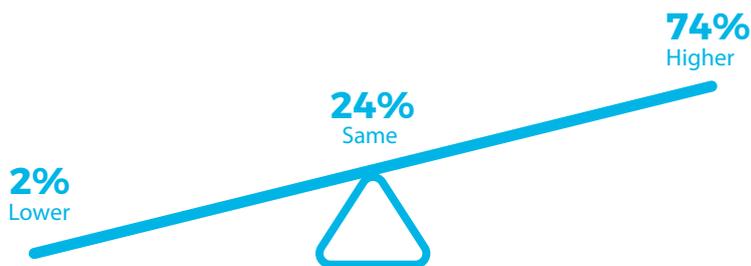
Notwithstanding the challenges in creating agreements, the Jury believes that an increasing number of partnership deals are being done.

JURY COMMENTS

“Established payments firms and startups finally began talking to each other in 2016. Some of those conversations will translate to real partnerships in 2017.”

CHART 11

Collaboration between startups and established players versus three years ago



Global Jury view on level of collaboration today versus 2014.



4

Top 5 Trends



Trend One: APIs and the rise of open banking

There is a widespread assumption in the payments industry that the use of APIs will increase in the years to come. The Jury was asked to explore this assumption of growth and to identify what would drive it and what risks it might bring.

The growing importance of APIs

In the broader technology industry, APIs have been widely used for much of the last decade. Technology giants like Facebook and Google have been strategically providing open APIs to increase their dominance and create new markets. Financial services and payments are therefore quite late to the API party.

Since the 2015 Jury looked at the factors that were then inhibiting most established players from publishing their APIs, the industry has moved on significantly. Regulation has played a role in this in Europe, especially PSD2, but the thinking has also evolved significantly in regions where there are no regulatory requirements.

JURY COMMENTS

“APIs have been important for quite some time and are becoming more so. This is being driven by policy-makers especially in Europe on one side and by technology-driven upstarts like Stripe.”

“APIs will be crucial, and not only for established players (i.e. banks).”

“APIs will happen, but it will take longer than three years to move the needle.”

“It’s not clear to me that banks have realistic strategies to deal with APIs - too many of them still see APIs as a technical issue.”

“We shouldn’t just be thinking about API access to stores of value (banks) – we should also be looking at API access to infrastructures and schemes which will really drive efficiency.”

“API standardisation is a must to scale and provide a “trusted” framework for the implementation of new and innovative services.”

CHART 12

Future role of APIs in payments development



Global Jury view on significance of APIs over the next three years.

CHART 13

Driving forces behind APIs



Global Jury view on trends driving APIs.

An overwhelming majority of the Jury (73 percent) believes that APIs will play a major role in the development of the payments market over the next three years. Almost no jurors believe that APIs will not play any significant role.

The Jury looked at the reasons underpinning the move towards greater use of APIs in payments. The number one driver of the trend is developers and external companies demanding access to established payments providers' APIs on the premise that if they don't get access then their customers won't be able to use the service.

There is also a trend of banks and payment providers to access the creativity and reach of external developers because relying solely on internal innovation is not going to be sufficient.

Regulatory pressure achieved the lowest rating on a global basis, perhaps because currently it is only a consideration in Europe.

Europe regulation in focus: The role of PSD2 and the Open Banking Initiative

PSD2 came into force in January 2016, although there are different dates for implementation of the various requirements. The stated aim is to make the EU's financial services and payments single market more open and competitive. There is a requirement for payment service providers, primarily banks, to give regulated third party organisations – AISPs (Account Information Service Providers) and PISPs (Payment Initiation Service Providers) – access to their core payment systems via APIs in order to provide information services and/or to originate payment transactions. This could make fundamental changes to the payments value chain because it effectively draws a distinction between the custodial aspect of an account and the information provision and payment aspects of the account.

The Directive aims to level the playing field between traditional financial institutions and other companies wishing to enter the payments space. There is a widespread belief that Open API access to bank accounts will have a major impact on the industry. PwC's report, *The Strategic Implications of PSD2 for Europe's Banks*, highlights that 88 percent of banking executives acknowledge that PSD2 will have an impact on their business. However, many of the jurors cautioned against automatically assuming that the impact will be as severe as predicted.

From a regulatory perspective, it seems as if many regulators in other regions are waiting to gauge the success of PSD2 before making any similar commitments in their own market.

JURY COMMENTS

“It depends on the regulator in our market. The APIs that disruptors need are owned by the banks and they will need to be forced to open up. But I don't see regulation happening quickly.”

“Over three years, APIs will have a minor but growing role for payments here in USA. The concept is more likely to be tested first in providing third-party access to financial account information, and even that has no US regulatory mandate yet.”

“Given PSD2 and Open Banking, there can be little doubt that APIs will play an important role in the development of the European ecosystem. The question is how long the banks will drag their feet on rolling out!”

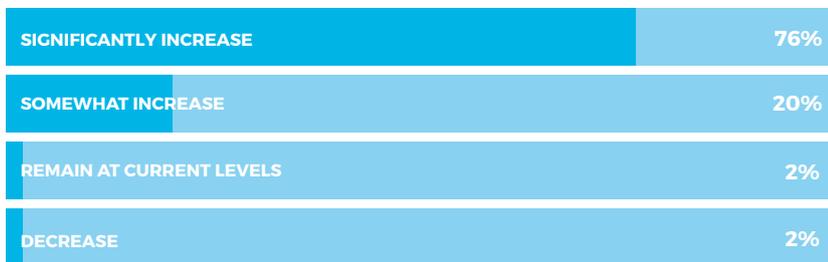
“APIs and open access regulation in Europe will change the balance of power between banks and non-bank innovators, removing a key competitive barrier that banks have enjoyed since forever. This will enable innovators to beat banks at innovation.”

The growing use of in-app payments is another reason why it seems increasingly necessary for established firms to provide external developers with easy access to payments systems. This is a sentiment shared by the Jury, 76 percent of which believes that the volume of in-app payments will significantly increase over the next three years. This is because APIs tend to be the technology used in cases where payment ‘disappears’ through the use of an app connected to a number of different payment providers.

Examples can be seen in both B2C payment apps such as Uber and in B2B applications such as eNett and Ixaris which both provide online travel agents access to their virtual card platforms via APIs.

CHART 14

Integrated payments over the next three years



Global Jury view of integrated or embedded payments over next three years.

Which Internet of Things (IoT) devices with in-app payment capabilities will generate the most payments?

Given the growing popularity of internet enabled devices – IoT, the Internet of Things – there has been much discussion about how payments can originate from these devices. The Jury considered which types of IoT device would be the most likely to generate significant transaction volumes. The input from the Jury was that they cannot see a clear winner and indeed many jurors caution that security implications are likely to have a major impact on whether and how payments are generated from such devices. Wearable technology, followed by smart retail, are viewed as most likely to generate payments volume.

CHART 15

IoT devices that will drive the greatest payments volume



Global Jury view on IoT devices that will generate payments volume in the future.

JURY COMMENTS

“In-app payments are the future. Ironically, the big trend in payments is that they will disappear into the underlying economic transaction, Uber-style.”

“Making payment invisible is what end users want - the continuing sublimation of payments into apps seems inexorable. No going back.”

“From a corporate point of view, they want it tied into the ERP systems i.e. invisible too.”

“Currently IoT is dominated by wearables... I expect this to shift towards connected home and connected cars in the next five years.”

“Payment via connected cars has the strongest mainstream customer proposition and will therefore gain largest adoption and use.”

“Too much behaviour change in most of this for it to happen at scale quickly, so the things that most closely resemble existing behaviour have the best chance.”

“Security issues need to be addressed for IoT to really expand.”

What concerns established players about opening their APIs?

While it is clear that the Jury believes APIs will play a major role in the development of the payments market over the next three years, their use does not come without risk. In Europe, banks are not being given a choice about providing API access to their systems but in other regions it is still a choice of the bank whether to provide access and on what terms.

The Jury considered which risks were the most concerning. Security concerns are stated as the main reason that established payments firms are reluctant to publish their APIs. Given the regulatory climate and scrutiny that financial services firms are under, and the media attention given to security breaches, it's no surprise that security is the top concern.

The importance of security can be seen in the IRS's recent "Get Transcript" application hack. More than 700,000 consumers had sensitive tax information stolen in 2015 by thieves who hacked into the application, an API aimed at enabling USA taxpayers to more easily obtain records of their previous tax filings.

The Jury believes that the banks themselves would probably be seen as responsible for the security issues even if the problem originates in the third party organisation using the API.

The second major concern in the eyes of the Jury was that established firms may lose revenue – especially if there is a revenue share arrangement – and brand awareness if the third party is seen to be delivering the service to the end user.

Jurors outside of Europe also feel that they need to make a business case for providing API access to their systems and that this is often not easy as it can be difficult to quantify the likely revenue coming from the third-party source.

The findings from the Jury indicate that APIs should be considered as part of a business strategy and product line up rather than just stand-alone technology interfaces if they are to truly succeed.

JURY COMMENTS

"This is a long/short problem. All the risks are short term, but the benefits are longer term. It's hard balancing act for product line owners, which is why it needs a strategic perspective."

"Established firms are always reluctant to lose income. Access to their information systems via APIs requires greater security. Lack of standards will oblige operators to take time to define their own standards."

"Banks (and other brands like Visa and Mastercard) becoming dumb utilities is a real and understood risk. "

"The logic to move to API is clear but the cost benefit case is unclear."

"Even where regulators mandate open APIs, banks fear that they will be left to pay for the damage when things go wrong, and pay a share of their potential revenues when things do go right. It is a brave bank that is confident that open APIs will bring them enough business to generate more business overall."

CHART 16

Inhibitors to established payment firms publishing APIs



Global Jury view of inhibitors to publishing APIs.

Trend Two: Data and Security

It is sometimes stated as a truism that the data resulting from a payment can be more valuable than the payment itself. Payment processing in developed markets is already becoming relatively commoditised and almost three quarters (73 percent) of the jurors agree with the statement that in the future firms will increasingly process payments primarily as a means to access data.

The implication is that the activity of payments processing by itself will not be a sufficient revenue driver for most organisations. It is worth noting that several jurors from developing markets – where basic infrastructure is still not available – believe that it would be many years before that situation arose in their markets.

How are payments businesses using payments data today?

As payments service providers already have large and increasing amounts of data available about their customers and their payment patterns, the Jury considered how data is currently being used. Despite the huge strategic opportunities potentially available from analysing and understanding customer data and turning it into actionable insights, the cases where this is done successfully are still few and far between. A number of jurors asserted that the only use case they could identify where real value has been derived from large volumes of data is fraud prevention, and that application was developed long before the concepts of Big Data and AI were originated, and has effectively become business as usual. The clear finding of the Jury is that the current number one use of data is for improving the customer engagement experience, which should be seen as tactical rather than strategic.

CHART 17

The uses of payment data by payments firms today



Global Jury view of Big Data use by payment businesses (other than fraud prevention).

JURY COMMENTS

“Monetising payment data is still in its infancy, whereas there are still huge profits to be made in processing payments.”

“The potential is there, but not apparent in use in any scale. The question is whether new large scale payment models help the automation and pass through of data at scale.”

“The biggest and most mature usage of data is to combat fraud.”

“Very few payments companies have solid data analytics or AI/ Machine learning skills to truly rely on data only business models.”

“I think in the coming year there will be a much bigger focus on data, machine learning and AI on the acquiring and processing side.”

“We’re doing some interesting work here, but, truthfully, for us it’s early days. In old style companies, they’re mainly at the level of generating interesting observations, not actionable insights.”

“Customer data protection is a key concern and more and more a regulatory requirement. It is a major challenge for all organisations with data.”

Many jurors (25 percent) think that, when it comes to their own organisations, they just cannot access sufficient data to make good decisions.

It seems, when it comes to Big Data in payments, the Jury believes that reality is still lagging well behind the stated ambitions.

What is holding payments firm back from effectively using their data?

As the Jury believes that most firms are not effectively using the data that they already have, it is important to understand why that is the case. The Jury identified lack of data skills and siloed technology as significant factors but in their view the underlying and most important reason is the lack of a coherent data strategy. Given the importance that is attached to data by most organisations, this may seem a surprising result but the Jury is very clear on this point.

Yoyo, the mobile based loyalty and payments company from the UK that provides services to merchants, stands behind the premise that it is easier for a specialist provider to turn data into valuable insight rather than the large industry giants. So, although the theory is that the more data the better, it is important that businesses have the skills and expertise to analyse it.

A lack of explicit customer consent was ranked as the fifth factor at a global level, reflecting that many jurors do not believe that data privacy restriction is currently a significant issue for them in their markets. European jurors ranked it third which was somewhat surprising given that in May 2018 all European Union member states will mandate the General Data Protection Regulation (GDPR), regulation aimed at putting additional boundaries around the use of personal data. Under GDPR, firms storing customer data will no longer be able to rely on customer opt-in consent – a practice which is currently common in the financial services sector – but instead will have to gain explicit consent to use and access customer data.



CHART 18

Biggest barrier to using data



Global Jury view of factors most likely to inhibit use of Big Data by payment businesses.

How does the Jury view data security?

Although security concerns are not seen by the Jury as particularly impactful in terms of the ability of firms to utilise and exploit payments data, the issue of data security itself is high up the agenda of all payments executives.

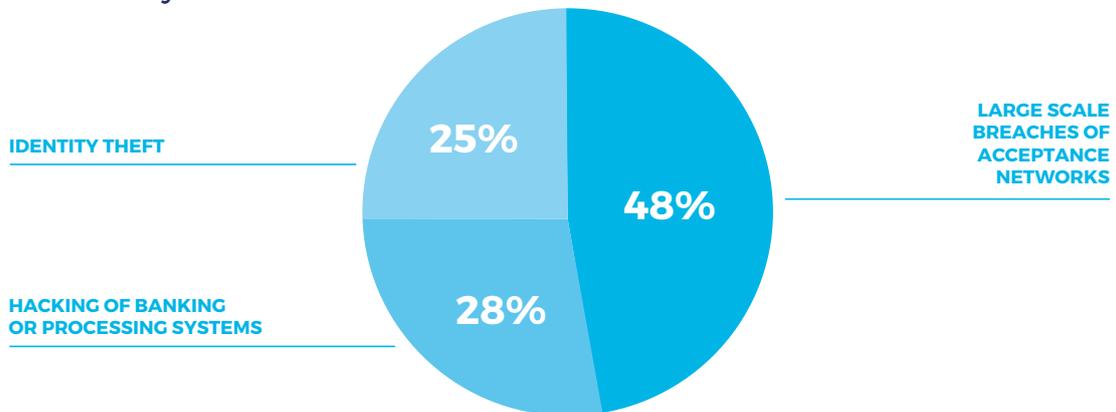
The Jury was asked which area of vulnerability to security risks they considered to be the greatest.

The Jury's view is that large-scale data breaches in the acceptance network are the most concerning because of their impact on such a large number of customers. As many examples have shown, the impact can be very significant in terms of fines, fraud losses and reputational damage.

Attacks on the processing systems of individual banks are also considered to be a major risk because again multiple consumers are potentially impacted. However, the Jury argued that in this case, a bank is more in control of its own destiny and has the capability to take adequate preventive action.

CHART 19

Biggest security concerns



Global Jury ranking of security concerns facing the industry.

Considering security during the product innovation process

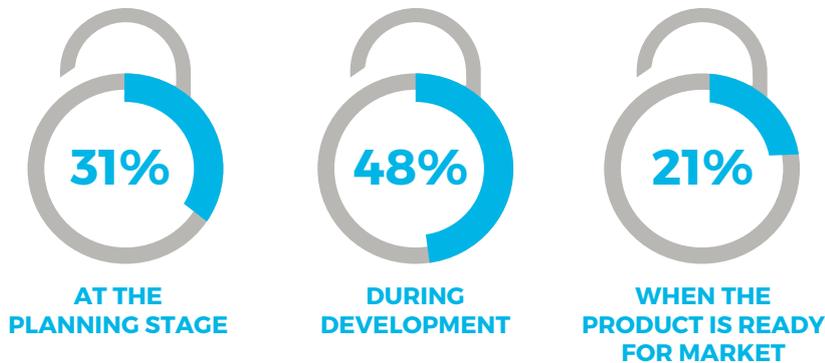
Many payment products, especially those delivered through APIs from mobile channels, potentially increase the security exposure of payments providers. The Jury looked at how proactive firms are being in assessing the security implications of product innovations.

According to the Jury, 31 percent of payments firms consider security during the planning stage of a new innovation or product launch with the majority (48 percent) considering security when they get to the development phase.

The Jury feels that it is always better to consider security as early as possible in the innovation process. In reality technical choices and detailed decisions often cannot be taken until the development phase. What is worrying is that 21 percent of firms only think about security when the product or service is ready for market.

CHART 20

When most payment firms consider security



Global Jury view on security in the innovation cycle.

JURY COMMENTS

“You have to develop your security approach during the development process. But there are cases with some players where it is completely ignored until it’s too late.”

“We try to think about security at the planning stage but often we don’t get to grips with the detail until we get into development.”

“Too late but that is changing.”

“I am sure they would say from the start but in reality it’s hard to do that as the current ‘layers’ are always changing.”

“I see a disconnect between security operations and processes vs product development. Security mostly comes after.”

“Payments companies routinely think about security at the design and planning stages, but often have to revisit those plans soon after going live.”

Is security an area for payments innovation in its own right?

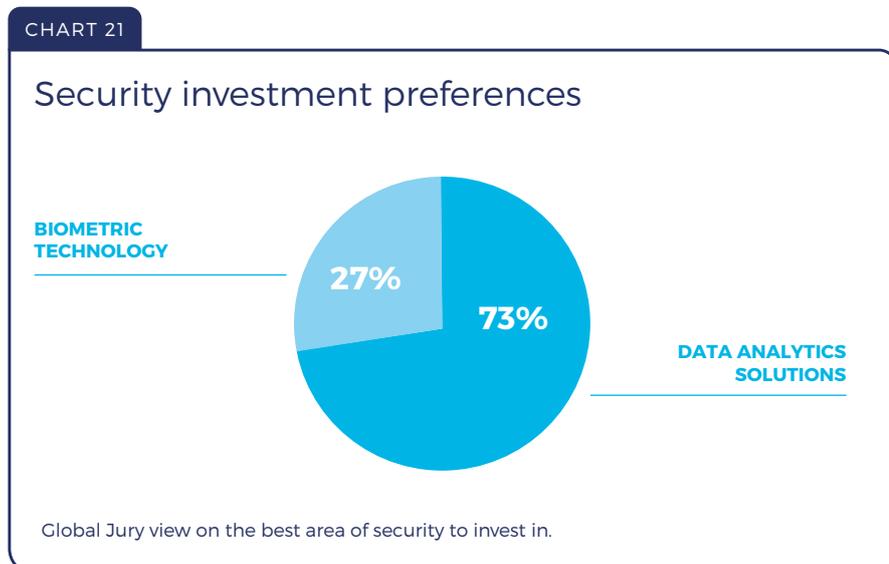
Although payments innovators always want to use the best security tools to make their solutions as safe as possible, there is also the question of whether the security tools themselves are deserving of innovation.

The Jury was asked whether they would invest in security innovation and if so which type of security solution they would favour.

Almost all of the Jury felt that security is an attractive area to invest. And within that, almost three quarters (73 percent) stated that they would prefer to invest in data analytics solutions to profile customers and identify out-of-pattern behaviour.

Although there was also support (27 percent) for investing in biometric technology to accurately identify individuals, the preference for the data analytics approach was significant.

The support of the Jury for investment in the data analytics approach is consistent with the earlier comments of jurors that the only consistently valuable use case for data so far has been in fraud prevention.



JURY COMMENTS

“Despite the media attention, and levels of investment, biometrics remains a mostly half-baked solution set. Most payment providers are still in the ‘playing with toys’ phase. But consumers and tech journalists love the idea of them.”

“The analysis of the data is possible when the payment operator has the analytical tools. Physical authentication tools are important, but insufficient and difficult to be implemented.”

“It is an endless race so we need the combination of static and dynamic data to be the most effective. Statistical data will be super powerful in a near future thanks to Artificial Intelligence so that is where I would invest.”

“Data analytics because it allows companies both to manage fraud and, more importantly, identify good spenders who are prevented from transacting.”

“I would like to invest in both because there is a real market need for both approaches.”

Trend Three: The Role of the Regulator in Fostering Innovation

Increasingly, regulators and central banks across the globe have an objective to foster innovation and improve competition in their home markets. And most governments are keen to see their countries develop fintech capabilities. How well do they stack up against this objective in the eyes of the Jury?

What impact does regulation have on innovation in the payments industry around the world?

Globally, the current view of the Jury towards the impact of regulation on innovation is biased towards the negative. 39 percent of jurors believe it restricts innovation in their markets, with another 26 percent stating that regulation has no impact on innovation. However, 35 percent consider that regulation is having a favourable impact on innovation and reported some positive experiences.

India was mentioned by several jurors as a market where an innovation agenda by the central authorities has caused substantial positive change in the industry and actively encouraged new business models. In the UK there is a compelling argument that the real time payments system (Faster Payments) would never have happened without regulatory pressure.

A number of jurors commented that regulation is a fact of life in payments and financial services and that the industry should work with regulators to make regulation better rather than try to fight it.

There were negative comments from the Jury about how regulators had handled the issue of card interchange, and that regardless of whether the objectives were reasonable, the way that it had been handled had caused many unintended negative consequences.

JURY COMMENTS

“Regulation is just part of the landscape—it will never lessen. Just get over it.”

“As an international player, regulation plays a large role. While it can be restrictive, it provides significant opportunity to innovate.”

“Regulation means things take a lot longer and most investors and founders don’t prepare for that.”

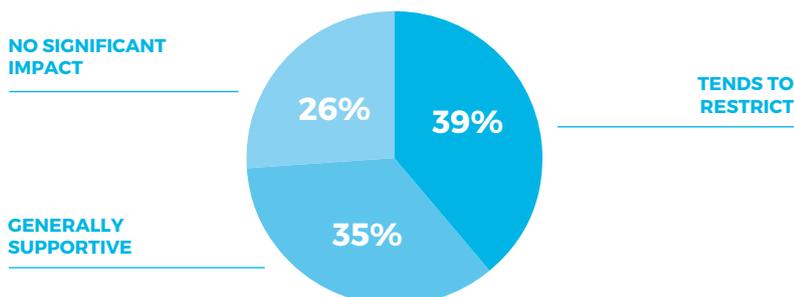
“Regulation is often designed to protect the incumbent – because the risk profile is known.”

“Regulation ALWAYS produces innovation - but the question is, will it produce the most socially beneficial innovation?”

“India is the best example of a market completely driven by innovation pushed by the public authorities: New regulations to prohibit cash, government spending to build bank-payment platform and consumer app distribution. Regulation does more for the market than any single bank or startup.”

CHART 22

Impact of regulation on payments innovation



Global Jury view on how regulation impacts their home market.

What aspect of regulation causes the biggest problem for payments startups?

Given that the regulation impacts almost all areas of the payments value chain, the Jury considered where specifically regulations cause issues for new payments businesses. Two major areas of concern were identified: licensing/permission to operate and KYC/AML.

Many jurors pointed out that their regulator and/or central bank are usually staffed by ex-bankers and this can lead to protection of the existing banks and traditional models.

This may not be overt, as often the authorities consider that they must prioritize risk control over innovation and the risks can be easier to understand with established players and business models. The practical result of a preference for ‘tried and trusted process’ is that in many markets it is very difficult for new market entrants to become licensed – either licensed at all or licensed in an acceptable timeframe.

KYC/AML are also widely seen as a problem area for payments companies – both established players and startups. Several Jury members comment that KYC regulations are outdated and that the requirements are not proportionate to the risk of transactions. At the macro level, established banks are often declining to participate in profitable activities such as money transfer because the risk of a large fine for non-compliance overshadows any profits that can be earned. And for new players, the onerous KYC requirements can kill a new business because it is not viable to recruit a customer base.

JURY COMMENTS

“One must remember that regulation’s purpose is not to speed up innovation, but rather to manage risk. And the regulators understand (or think they do) the risk of traditional banks.”

“The willingness of regulators to open the market to new entrants is countered by existing operators demanding that the same rules apply to all operators.”

“Our regulator doesn’t give clear and speedy feedback about the likelihood of an innovative business model to be compliant or not. Investors and founders have to live with the insecurity that regulator might at times intervene.”

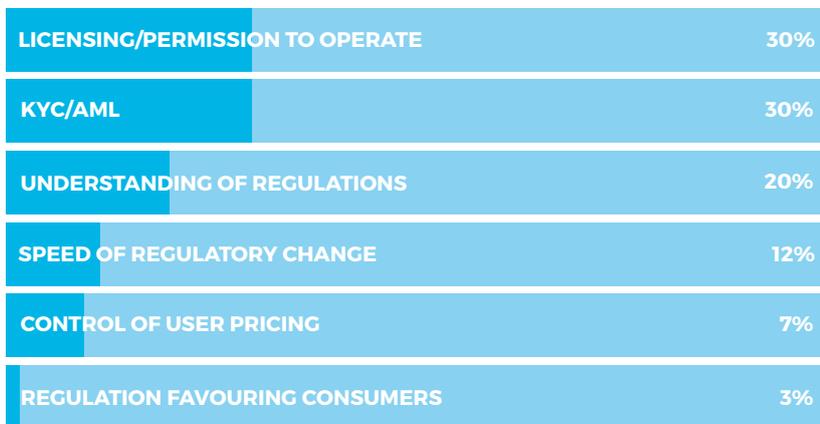
“Current KYC requirements are quill and pen regulation in the mobile age. I can tell you where my customer is, what he’s bought and how often. And yet all the authorities want to know is who provides his gas.”

“More than any other regulation KYC gets mixed up with a synthetic desire to do something in the face of terrorism or other forms of crime. No assessment is done as to whether the controls are effective, they just get ratcheted up as a knee jerk response to events merely driven by the desire to do something.”

“Uncertainty (on new AML directives) and inconsistent practice (on existing legislation) on KYC/AML processes is the largest source of friction and delay in payment innovation.”

CHART 23

Regulation causing the biggest challenge for new payment businesses



Global Jury view of regulatory impact on new payments businesses.

The Jury were asked to comment on which upcoming regulations would have the greatest impact on their own business. As might be expected, the feedback from around the world varied by market but in Europe PSD2 was cited more often than any other change with the Fourth Money Laundering Directive (4MLD) also being mentioned several times as a regulation that would cost a lot to implement but deliver little real benefit.

In developing markets, how can central authorities be involved in encouraging financial inclusion?

The Jury believe that generally it is better for the market to develop solutions because payment of non-market driven incentives leads to solutions that are not sustainable.

The Jury believes that sometimes central authorities can play a useful role but that the role should be limited to creating the right economic conditions for innovation; short-term incentives can be important to get over the initial ramp-up period of new business models. There was almost no support for central authorities stepping in to become industry operators (as has happened in some markets) to try to achieve financial inclusion.

As the payments industry becomes increasingly technical it is becoming more and more important that its regulators, many of which are comprised of individuals from traditional banking backgrounds, are educated about these challenges. Only by working together with the regulators can payments firms, established and startups alike, improve the regulatory requirements they must adhere to.

JURY COMMENTS

“The job of regulator is to create the right economic climate to incentivise socially beneficial market behaviour, including potentially providing or mandating key elements of infrastructure to help the market work better.”

“It is a rare government that can “do” innovation.”

“The development of financial inclusion should be encouraged by incentives at least during the startup period.”

“There should be guardrails but beyond that a government is more likely to inhibit than help.”

“I’m not a fan of government intervention. It tends to lead to people writing proposals to get the grant, but not improving customers’ lives.”

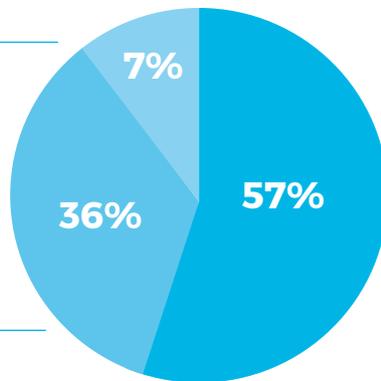
CHART 24

How innovation should be encouraged to promote financial inclusion

CENTRAL AGENCIES SHOULD PLAY AN ACTIVE ROLE

CENTRAL AGENCIES SHOULD ENSURE INNOVATION IS INCENTIVIZED

MARKET SHOULD BE LEFT TO DEVELOP SOLUTIONS



Global Jury view on how regulation can promote financial inclusion.

Trend Four: The Role of Mobile in Payments

The most pervasive new technology in payments is the mobile phone and especially the smartphone. The GSMA predicts that by 2020 there will be 5.7 billion smartphones in use worldwide, up from 1.9 billion at the end of 2016.

As the technology is deployed, almost all elements of the payments value chain will be impacted although the nature of the changes will vary considerably.

Where do the payments opportunities lie in mobile?

The easy integration of payments with social messaging, online shopping and mobile gaming is considered to have the greatest payments potential.

The replacement of existing physical form factors – principally cards – by mobile devices is also seen as important by jurors but they caution against assuming that replacement of a card by a mobile automatically means a new business model. However, there is clearly an opportunity to create multiple new innovative business models around the mobile.

The relatively low Jury rating for an acceptance network based on mobile possibly reflects the fact that, in many markets, mobile based acceptance devices are now the norm, so are no longer seen as an innovation.

JURY COMMENTS

“Mobile payment is a must and the model used must be adapted to the specificities of each market.”

“We have been talking about mobile forever! It’s not a place but part of the journey.”

“AliPay, M-Pesa and WeChat show the way here.”

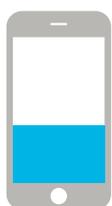
“Payment tokens are an enabling infrastructure rather than a specific business model.”

“Mobile payments must take advantage of the fact that mobile is a two-way channel (unlike most POS and plastic) in order to beat out existing form factors through meaningful value differentiation.”

“Over the near term, I believe the integration of payments with mobile messaging has the potential for the most explosive growth, particularly among younger generations.”

CHART 25

Mobile technology offering the greatest potential



35%
INTEGRATION
WITH OTHER
MOBILE-CENTRED
ACTIVITIES



27%
REPLACING
EXISTING FORM
FACTORS



22%
PAYMENTS
ECOSYSTEM
NOT CENTRED
ON BANKS



16%
COST-EFFECTIVE
PAYMENTS
INFRASTRUCTURE

Global Jury view on mobile technology with most payments potential.

What mobile wallet will succeed in developed markets?

More than half of the jurors (54 percent) see provider-branded mobile wallets such as ApplePay, Samsung Pay and those offered by established payments firms such as PayPal, as gaining the most traction in developed markets over the next three years.

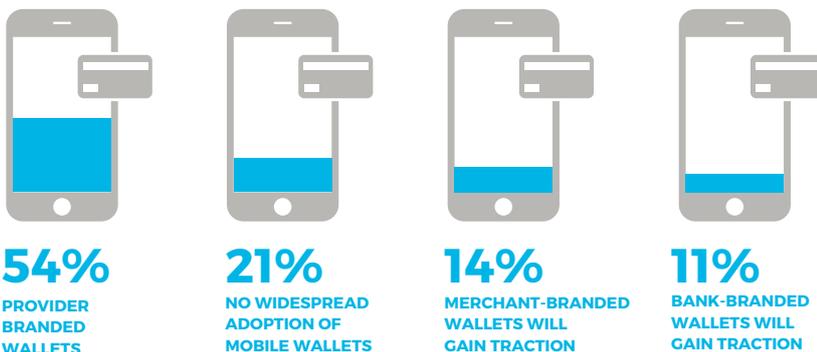
Several jurors do question the long-term impact and viability of the ApplePay model, given the high pricing of handsets and that lower interchange makes it increasingly unattractive for banks.

The Jury has a very clear view that both bank-branded and merchant-branded wallets will struggle to gain traction in most markets. The Jury considers that the main challenges for a wallet provider are to create a low-cost loading mechanism and then to recruit a large customer base. If both are achieved and a provider builds significant market share – as has happened with Alipay and WeChat in China and Paytm in India – it is then difficult for another provider to make a breakthrough.

Just over 20 percent of the Jury thinks that the likely impact of mobile wallets has been overstated. These jurors point to the continued success of contactless cards in markets such as Australia and UK, and the potential for in-app payments and direct access to bank accounts to make the wallet model irrelevant.

CHART 26

Future prospects for mobile wallets in developed markets



Global Jury view of most likely mobile wallets to succeed in developed markets.

JURY COMMENTS

“WeChat, Alipay and UnionPay will still dominate the Chinese market in the next three years.”

“Apple devices are prohibitively expensive for LATAM so other provider branded wallets can use the region to gain scale quickly.”

“It all comes down to the OS - banks and merchants are largely irrelevant.”

“The banks lost this already. The only way for them to play would be with a Visa or MC wallet with the local bank behind. But I am not optimistic.”

“The list of successful wallet solutions is a short list in reality... we’re nearly three years in for Apple Pay, and more like 7 years for the first Google Wallet – to the sound more of crickets than cash registers. Growth will most likely continue to be slow, owing to consumer satisfaction with traditional cards and the lack of interoperability/cooperation among the providers.”

“Open loop multi-retailer wallets like Yoyo in UK will gain traction but not single merchant wallets.”

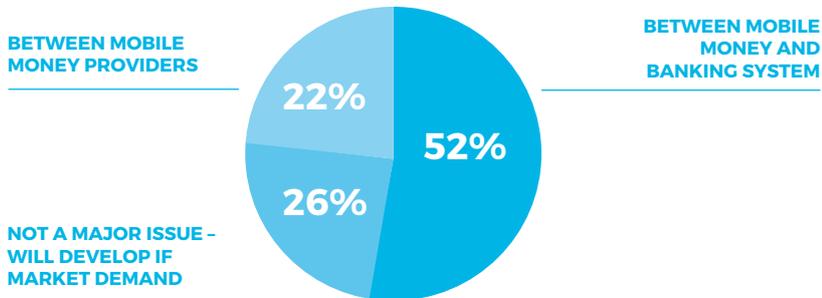
“API technology, Faster Payments and PSD2 seem to undermine the need for wallets.”

The role of mobile money schemes in developing markets

The Jury looked at how best to prevent mobile money ‘walled gardens’ from holding back market growth in developing markets. The Jury sees interoperability between mobile money operators and banking systems as the highest priority. Interoperability between different mobile money providers is also seen as important but the Jury would prioritise interoperability with banking systems as higher.

CHART 27

Highest interoperability priority for mobile money in developing markets



Global Jury view of critical interoperability challenges facing mobile money sector in developing markets.

JURY COMMENTS

“Mobile money will still be relatively niche in our market until interoperability with banking systems is solved, at which point the proposition would become much more compelling to consumers.”

“We shouldn’t forget that in many African markets we still don’t have full interoperability between the banks either. All markets need a national switch to connect the payment providers whether they are banks or mobile money providers.”

How important is real-time ACH?

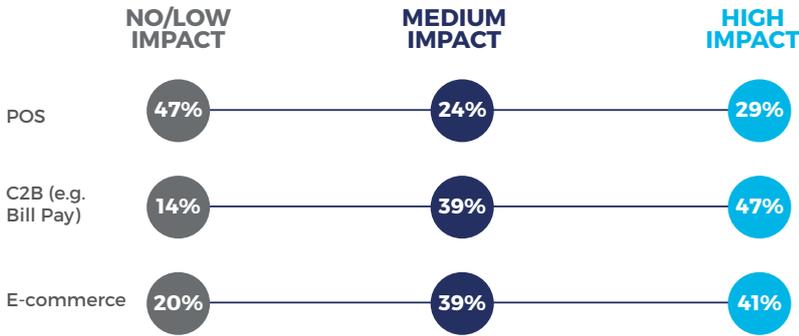
Alongside mobile, the other major technology change that can have a major impact on payments innovation is the introduction of faster ACH systems in many markets.

The Jury considered where faster ACH systems will make the most impact over the next three years. The clear view of the jury was that the most impact will be on bill payment where ACH has the ability to become almost the default payment option in many markets.

In contrast the Jury was very negative about the potential for ACH transactions to be originated at POS locations, which is not encouraging for innovators developing such solutions. A number of Jury members commented that despite the overall negativity about the prospects for ACH transactions from the POS, the example of ELV in Germany (which combines direct debit from POS terminals with a payment guarantee) shows that individual markets can successfully develop business models that deviate from global norms.

CHART 28

The impact of ACHs in the next three years



Global Jury view on impact of ACH on payment areas over next three years.

As many markets are in the process of developing real-time ACH systems with the expectation that new innovative payment models will be developed that will displace existing payment types such as cards, the Jury considered the hurdles that will have to be overcome.

The Jury believes that most of the real-time ACH initiatives are still work in progress and that until they go live there is no prospect of ACH replacing cards to any noticeable degree.

More fundamentally, and assuming that the real-time ACH projects are all successfully implemented, the Jury feel that the lack of an effective dispute mechanism will make the service unattractive to customers. As many ACH systems are run by central banks or committee-oriented interbank payment organisations rather than by commercially focussed organisations, this could be quite a difficult hurdle to overcome.

The other hurdle that the Jury rate as significant is that generally the user experience is not as simple as that of cards and that will significantly slow any uptake. The concern of the Jury is that the focus on ACH is being mainly driven by merchants and regulators unhappy about the costs of card systems and that the interests of consumers are being ignored.

JURY COMMENTS

“What problem does ACH at the POS solve for the user? You can see benefits for the merchant, but the user is the one who selects the way he pays. What’s their motivation to switch?”

“The card model functions very well, consumers are happy and banks too. It is merchants and regulators pushing ACH to lower transactions cost.”

“Consumer payments is firstly about peace of mind. Cards provide protections and PIN based debit is trusted. It will take time to build trust in a remittance that is largely unseen.”

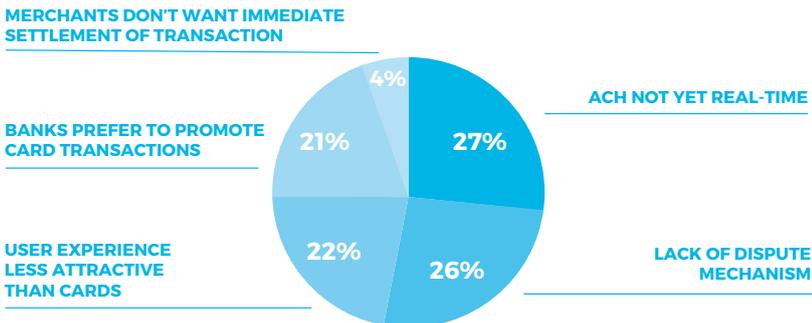
“The other ACH payment instrument, the Direct Debit, can be used in eCommerce and at POS (ELV in Germany). It provides a higher consumer protection level than credit or debit cards.”

“This is a new experience that takes time to be mature. It is clear that banks will continue to push the use of cards.”

“Banks enjoy card scheme interchange too much.”

CHART 29

Barriers to increased dominance of ACH



Global Jury view on inhibitors to ACH taking increased share of payments within next three years.

Trend Five: The Future of Cryptocurrencies and Distributed Ledger Technology

There continues to be extensive debate in the industry about the impact of cryptocurrencies and the blockchain technology that underpins them.

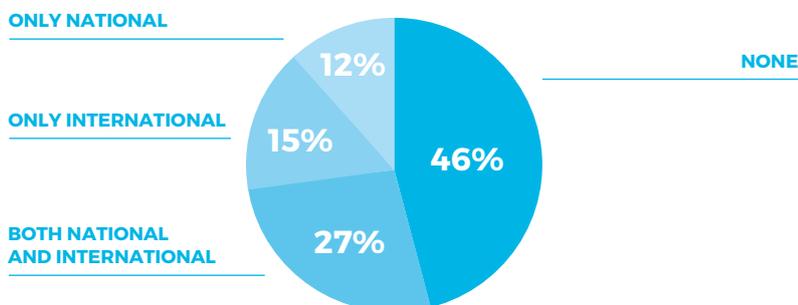
What is the future for cryptocurrencies?

The 2015 Jury was pessimistic about the future prospects of cryptocurrencies and particularly Bitcoin. With another 24 months of experience in which Bitcoin has continued to grow and there has been active discussion in some markets about the case for national cryptocurrencies under the control of central banks, the Jury was again asked about its likely evolution.

Almost half the Jury (46 percent) doesn't see cryptocurrencies as having future success on either a national or international level within the next five years. The rationale for the Jury view is that central banks cannot allow unregulated currencies to become significant; if they were to achieve real traction, then regulation would inevitably follow. And the association of Bitcoin with the Dark Web and ransomware payments creates a very unfavourable sentiment in many places. However, the 2017 Jury can imagine that cryptocurrencies – either national, international or a combination – could achieve a level of success (defined as 5% of payments volume) within five years although virtually no jurors believe that they can seriously challenge traditional payments made with fiat currencies.

CHART 30

Types of cryptocurrencies to be successful in the next five years



Global Jury view on future success of cryptocurrencies.

JURY COMMENTS

“I would expect both local and international use cases for cryptocurrencies to emerge in the next five years, but I do not see these challenging traditional payment technologies (yet).”

“In closed economies such as Argentina, there will be greater success at the consumer level as people work around currency controls. This could be a proving ground for mass market adoption.”

“Too complex to comprehend and a very narrow prospect market.”

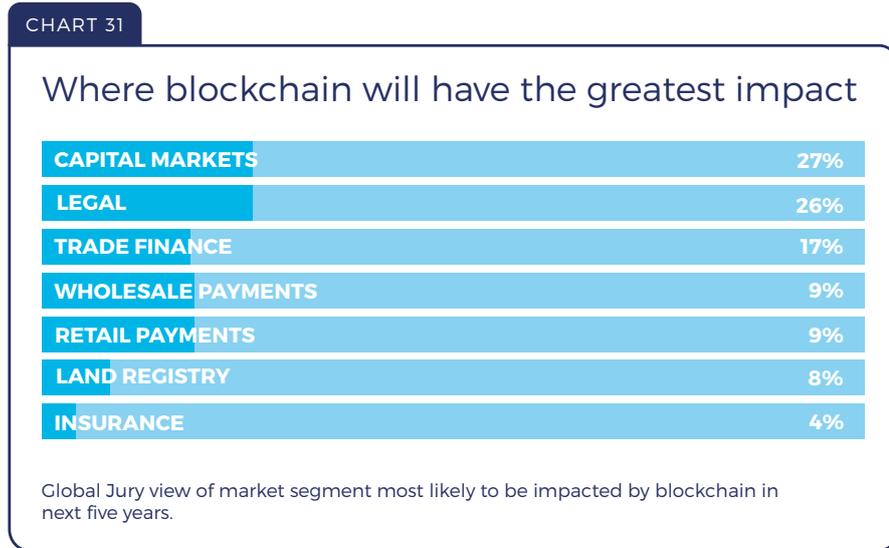
“Having an unregulated and uncontrolled currency is not something regulators will support on any scale and has enormous economic implications.”

“There is no compelling, commercial reason for cryptocurrencies to be successful. In any event, if there is any measureless success, it would be regulated to death.”

“I’m a cynic here. The question, once again is what problem does cryptocurrencies solve for users?”

Where will blockchain have the biggest impact?

In 2015, the Jury was very supportive of blockchain rather than of cryptocurrencies, even though blockchain/distributed ledger technology (DLT) was then at a very early stage. Subsequently DLT has become one of the hottest topics and investment areas in fintech, with a total of \$1 billion invested in startups in the first quarter of 2016 alone. The Jury was asked where it thought DLT would have the greatest impact.



The Jury believes that DLT will deliver the greatest benefits in capital markets, legal/contracts and trade finance. There were also some Jurors who thought that there could be applications for land registry in markets where there are currently no structured systems for keeping records. In contrast to their enthusiasm for the potential in these areas, the Jury was unimpressed by the potential in either retail or wholesale payments within the next 5 years.

JURY COMMENTS

“I’m a complete sceptic here. I simply don’t see any impetus for blockchain technology in retail payments. I really don’t understand all the investment.”

“As opposed to cryptocurrencies, blockchain potentially provides real opportunity to provide greater efficiency in the movement of value.”

“My working hypothesis is that blockchain is potentially valuable where assets and workflows are relatively complex, participants are diverse (including geographically) and transactional provenance/history are important. Trade finance is the “most likely to” right now.”

“Capital markets seems to present the most straight-forward gains, and is attracting a significant amount of the investment.”

As the Jury has particular expertise in the payments domain, they were asked – despite their overall caution – about which areas of retail payments they could most easily imagine DLT becoming important. The Jury saw the most potential in the remittances sector although even then the comments were that this would take 5-10 years because of the need to agree common standards.

Notwithstanding the potential identified for remittances, the greatest Jury support was for 'none of the above'.

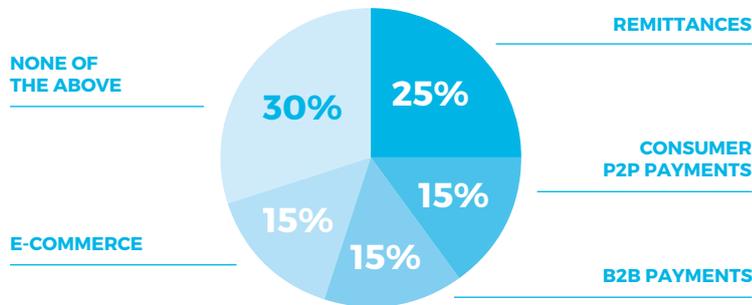
JURY COMMENTS

“Regtech is where the blockchain will bloom.”

“I can imagine real value with remittances. Seems like existing solutions and developments in real-time payment infrastructure will address most of the other choices before the legal and regulatory concerns around blockchain are addressed.”

CHART 32

Where blockchain can offer the greatest financial return in retail payments



Global Jury view of where retail payments investors are likely to get greatest return from blockchain technology.



5

Hype versus Reality



Payments is an area that is characterised by hype – every few years there is a new development that is going to fundamentally change the payments market and then later, having failed to live up to expectations, it is quietly relegated to the back row and replaced by the next game changer. The fact that an innovation is over-hyped doesn't mean that it doesn't deliver benefits for the industry, rather that the claims made are exaggerated. And hype tends to lead to misallocation of investment resources.

Previous juries have been good at identifying hype in payments innovation.

In 2013, the Jury singled out mobile wallets and NFC as the most overhyped innovations. As discussed in this report, the industry is still waiting for mobile wallets to achieve widespread uptake and similarly contactless cards, despite widespread usage in Australia and Europe, are by no means global successes.

In 2015, the Jury felt Apple Pay was overhyped despite Tim Cook declaring that '2015 will be the year of Apple Pay' and many commentators predicting that the future of retail payments would be fundamentally changed. There are frequent reports that Apple Pay is not living up to expectations and is either a niche product or non-existent in many markets suggesting that the Jury called it right.

The 2017 Jury has nominated distributed ledger technology for the hype award. While jurors believe that the technology can deliver real benefits for the financial services business they also consider that many of the claims made about its applicability are over the top. IoT payments is also called out by several jurors as another overhyped area.

Although hype is generally associated with products built around new technology, some jurors suggested that perhaps regulation in the form of PSD2 could be the biggest hype of all.

JURY COMMENTS

"Blockchain...it's a technology and it could be a great but it's just tech at the end of the day. It won't fix world hunger and debt."

"Crypto-currency is overhyped but not blockchain."

"If I read another piece about blockchain-enabled fridge or hairbrush, I think I'm going to retch."

"Cryptocurrency and blockchain is too hyped especially for cross border payments."

"Blockchain is hyped. It is so hot that you risk being ostracised if you dare say that the Kaiser doesn't have any clothes on."

CHART 33

Hyper Award Winners from 2013 to present day



**MOBILE WALLETS
AND NFC**



APPLE PAY



**DISTRIBUTED LEDGER
TECHNOLOGY**

Sponsor Boilerplates



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Website: www.ixaris.com

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Currencycloud

Currencycloud's Payment Engine is the power inside countless businesses, driving the transformation of the global payments landscape. The company is re-imagining the way money flows through the global digital economy, allowing payment firms to remove the friction and inefficiencies of traditional cross-border payments using its flexible APIs. Launched in 2012 Currencycloud is based in London and is regulated in Europe, the USA and Canada.

Website: www.currencycloud.com

Twitter: @currency_cloud



WorldRemit

WorldRemit is the leading digital money transfer service that makes sending money as easy as sending an instant message. We currently send from 50+ countries to more than 140 receiving destinations, leading the shift to online and mobile money transfers and improving speed and convenience for users, while lowering costs. On the sending side we are 100% digital (cashless). For those receiving money, WorldRemit offers a wide range of options including bank deposit, cash collection and mobile airtime top-up and critically mobile money. Founded by Ismail Ahmed in 2010, to date WorldRemit has secured almost \$200 million in funding backed by Accel Partners and TCV – early investors in Facebook, Spotify, Netflix and Slack.

Website: www.worldremit.com

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AN INSIDER'S VIEW TO
PAYMENTS & FINTECH