An Overview of Developments in Digital Strategy

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INTERMEDIARY
MORTGAGE
LENDERS
ASSOCIATION

Contents

1. Abstract

This IMLA paper has been written to help inform IMLA members' digital views, thinking and strategies. It has searched out commonly raised areas of enquiry. In addition it has looked at market and regulatory views that affect digital plans and offers a vision of how some of these changes will manifest themselves over the coming ages. Technology and society are changing and lending is evolving as a result.

As part of this paper we conducted research among member companies to establish the base of hopes and fears for a more digital future. IMLA is a broad church but what each lender has in common is a concern for the future of distribution through the intermediary channel – what that may look like and how it will operate in the future.

The resulting document endeavours to shine a light on the issues that affect putting together a strategy and that affect implementation. It is to help those in the boardrooms of the UK mortgage lenders to get the right answers to the questions they are asking. Every lending organisation is unique, often with their own heritage and legacies playing crucial roles in determining their futures, but they face the same questions. What does digital mean for us? What do we want to do with it? What is expected of us by consumers, brokers, regulators and stakeholders? Can we implement what we want to do?

The output will differ for each organisation but this document presents an opportunity to think critically about the delivery of a digital proposition.

2. Introduction

If the last big event in consumer finance was the over supply of credit to consumers and the ensuing liquidity and funding crisis then the next epoch may well be defined by the digital age. Technology has produced more than its fair share of shocks to economies since the Second World War but many contend we are in the midst of a fourth Industrial Revolution (4IR)[1] that is characterised by a fusion of technologies that is blurring the lines between the physical and digital worlds. Its impact is everywhere and this includes the way we handle and process financial services.

Our survey and this resulting paper have highlighted the urgency of acting. IMLA is keen to ensure that all its members are furnished with as much information as possible to help make the right decisions for their organisations. The health of the industry is predicated on all members making the right decisions for their organisations. This paper attempts to support that process.

Our survey illustrated that everyone understands this. Appreciating the magnitude of the opportunity – and the gravity of the threat – is well understood, but it is just the first step in formulating a winning digital strategy. Digital touches every aspect of a business, from financial management to sales, operational and risk strategy development to organisational culture.

All the members we spoke to appreciate this but their ability to comprehend what this means, how it will look and their place in it is less well understood. Lenders' operating contexts are unique in many ways and these, with balance sheets, determine their ability to act – legacy systems hamper full scale re-invention and how they see themselves.

All the lenders we spoke to understood the cost savings of digitising their current processes. A key driver from the research was that digital creates value by enabling straight-through processing – that is, automating and digitising a number of repetitive, low-value, and low-risk processes. Process apps boost productivity and consistency and facilitate regulatory compliance, while imaging and straight-through processing lead to paperless, more efficient work flows.

Digitalisation[2], which is far more ambitious, is on far fewer agenda. Formulating a digital strategy is difficult for businesses that are essentially anything but digital. Disrupting current models, disintermediating current practices through technology and using data to foster innovation across products and business models is a more challenging prospect. It is about more than connectivity. It uses data to extend and refine decision-making. We offer a view of how this might work, gleaned from our conversations from lenders and experts in the field.

[1] https://www.amazon.com/Fourth-Industrial-Revolution-Klaus-Schwab/dp/1524758868/ref=sr_1_sc_1?ie=UTF8&qid=1502893274&sr=8-1-spell&keywords=klas+schwab
[2] https://medium.com/@ravisierraatlantic/digitisation-digitalization-the-2-letter-difference-59b747d42ade

3. Methodology

We approached all lending members of IMLA and spoke to over twenty UK lenders that represent every type of institution whether by organisation type, size of balance sheet, market sector or business model.

Interviews were qualitative ranging from 30 to 45 minutes and conducted for the most part over the phone in order to manage the logistics of speaking to appointed representatives of firms and group participation.

A qualitative approach was chosen as it allowed for a more open dialogue that did not presuppose a certain level of knowledge or progress. Open questions were used to allow interviewees to talk about their organisations' experiences and reflect and consider the issues, success and challenges going forward to fulfil their digital vision.

In order to get a frank appraisal of their positions, thoughts and views, interviews were conducted upon strict condition of anonymity. The interviews covered current operating context, the formulation of digital strategy and the issues around implementation of that strategy.

4. Scope of the paper

The purpose of this paper is to lift the veil on the issues facing intermediary lenders creating and delivering a workable digital strategy. There is a focus on origination and integration and a focus on the issues around digitalisation raised by lenders in the interviews. This paper does not include crypto-currencies as part of its digital brief. These may ultimately be hugely impactful. Further reading on these is available from the FCA[3].

[3] https://www.fca.org.uk/news/press-releases/fca-reveals-findings-first-cryptoassets-consumer-research

5. Contributors

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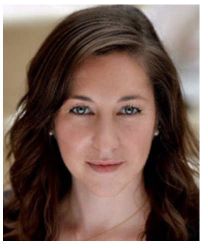

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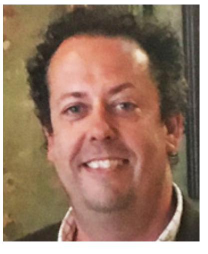


Matt Smith is the Owner at WPB and The Chair Consultancy and lead author of this paper.

6. Key issues

During the course of conversations, lenders' concerns fell broadly into two distinct camps. What should we do and how can we achieve it? Lenders were at different stages in thinking about digital solutions and implementing digital solutions. Confidence in the proposed solutions varied among the responders.

The digital strategy

Digital is not, alas, a level playing field. Many lenders have encountered significant challenges deciding what they can do to adopt digital into their businesses. Some of these issues are amplified by lenders' current operating systems.

Digital strategy needs to support the business now and in the future. There is concern among some about being in a position to do something quickly. Digital was frequently spoken about as something to support the business as it stands today – it was rarely spoken about in terms of evolving the business for the world tomorrow. How can lenders develop an agile long-term view?

Regulatory drivers

The supply side in the shape of regulation promotes a de facto consumer agenda but by defining digital activity it can constrain innovation. There is a concern that digital may disenfranchise some borrowers and intermediaries.

Operational capacity and constraints

Over and above operating systems and legacy issues, lenders acknowledged that their ability to act is impacted by the size of their balance sheets, cultural agility, and regulation and governance issues.

Data

The focus was invariably upon technology and the drive for straight through processing but some lenders vocalised their thoughts about data strategy and security.

Partnering strategies

This is the area which provoked the most passionate responses from our interviewees. Lenders are outsourcing much of their digital development but this raises challenges of resource, buying power, and business models.

Developing a digital culture

There is a recognition that while things are changing the culture to deliver a digital future is, in most lenders, a work in progress and one that needs addressing if businesses are to adopt and fully embrace digital.

7. Formulating a digital roadmap

Make no mistake, clarity of purpose and the ability to execute are key to understanding any organization's chances of delivering a successful digital offering. One lender remarked, 'Being quick out of the blocks is right if you are clear about what you want to achieve.' Another remarked, 'We took longer to decide what we wanted to do but that has proved to be a good thing.' Another admitted that they had changed distribution strategy even within the last 12 months in recognition of the number of potential successful partners in the market.

Unsurprisingly perhaps, most lenders, as incumbents in the industry, have chosen to participate in digital by either deciding to (or are considering joining) industry platforms operated by third parties rather than building their own. A platform strategy, pursued alone or cooperatively, is becoming a competitive necessity. There is little time to procrastinate. Companies that have yet to make their move may find it increasingly difficult to catch up, but not all is lost.

Digital highlights an interesting issue. Every lender understood the case for digital for vanilla lending but many were less sure it could deliver complex lending decisions. For many, there is a good case for acknowledging that a blend of digital and human will provide the best way forward for those whose business delivers for the less straightforward customers. Manual underwriting, a much appreciated feature of many smaller lenders, will require human input.

Indeed it is hard to imagine aggregators, often cited in calls as the unknown entity in the distribution strategy, wanting to increase their and lenders' costs by delivering anything that might be construed as advice. But these do figure as a legitimate business source in some lenders' digital strategies for vanilla business.

This issue shines a light on the importance of being clear about product strategy and distribution strategy. Our conversations with lenders revealed many are backing several horses in the absence of any sure winner. Aggregators, sourcing engines and Customer Relationship Management all offer distribution opportunities. What should inform these decisions is a clear view of the lender's own product proposition and the appropriateness of any solution. Whether a product range is to be driven by product type (for example, a focus on savings and mortgages rather than a more complex mix including insurance products and current accounts) or based on heritage and geography (for example, an existing branch network/specific location), it is important that everyone involved understands how that proposition can be supported by digital. If organisations understand this then, as several lenders suggested, the question to their technology suppliers becomes less about 'what have you got that allows me to be part of this digital movement' and more about 'what have you got that supports my very specific digital business goals?'

Digital strategies have to be integral but also appropriate and not, as one lender expressed, 'me-too bolt-on solutions'. While many lenders with direct arms were quick to point to consumer expectations as a real driver for change, the biggest driver behind the drive for digitalisation is cost saving. The latest figures from UK Finance show 290,000 customers took a product transfer in Q1 2019 with a total value of £39.2billion. Remortgage, including further advance, saw 116,030 completions totalling £20.7billion – roughly half the product transfer market. A number of conclusions can be drawn from the observation of these trends. They come down to three basic behaviour drivers within lenders: the fear of competition, the need to cut costs, and the desire to protect market share and profits.

Do brokers and their customers want a digital proposition?

Many lenders pointed to how lending money has to change. Digital connectivity and consumer purchasing behaviours go hand-in-hand, especially in newer, 'early adopter' markets like peer-to-peer. More than one lender highlighted that this is not just a consumer issue but also a workforce issue. Among the next generation of boardroom executives, it is likely a good number will have coded at some point in their careers and their empathy and understanding with digital technology will be greater. This is not to say it will look after itself in time but it makes the point that the disruptive nature of technological change is here to stay.

Many make the point that technology is a constant work in progress and is as much part of the business as the products and the people who deliver them. Agility in technology and people are becoming the norm. The truth is that people adopt and use technology differently in the modern world. We often talk about the shift towards online and mobile banking as being related to those generations who have grown up with technology. Being innately comfortable using mobile is undeniably a factor, but it's more nuanced than this.

> "Not all young people want to use mobile for every single financial transaction. Not all old people do either. Some who fall into the millennial generation want to use mobile to order a curry, but not to order a mortgage. And just as likely, there are those in their 70s who are quite happy remortgaging online. We offer a view of how this might work, gleaned from our conversations from lenders and experts in the field."
>
> Sarah Davidson

As with anything it's a question of choice and flexibility. A question worth asking is whether the shift to online and mobile is about generational change or about age? People might want to transact on mobile in their 30s but by the time they are in their 70s, walking into a branch might be a preferred approach – even if that is in 2060.

Separately from the recent FCA study, there have been calls – most notably from the Treasury Select Committee – to improve consumer access to financial services. A key pillar of this access has been identified as the social need to maintain physical branches which flies in the face of digitalisation. The Treasury Select Committee report on financial inclusion published in May 2019 cited evidence that in 1988 there were 20,583 bank branches in the UK, but the number remaining has reduced to 9,690 based on the latest estimates available in 2017. Why are branches closing? Lower footfall. Branch visits have fallen by a quarter since 2012.

Customer behaviour has shifted considerably in the past 15 years, with consumer reliance on and trust in technology vastly increased. Combined with the Mortgage Market Review rules resulting in 97 per cent of all mortgages being sold on an advised basis in 2017/18, pressure on lenders with branches to have them 'cover their seat' has grown significantly.

This, combined with a rising proc fee bill for lenders, has driven a desire to increase the proportion of their mortgage business written at the lowest cost possible – execution-only product transfers. Therefore, the vast majority of lender investment in technology has been to support this type of business; equally, product pricing strategy has also evolved to support this channel.

A wholesale move towards execution-only by the regulator would pave the way for large scale lenders to invest further and heavily in automating the execution-only and advised product transfer and internal remortgage processes online. This will cut their costs on processing, advice and procuration fees. Customers are likely to respond well, particularly where they fit prime credit profile and their property does not present any outlier risk as service and speed are likely to improve.

Product pricing for these customers should remain under regulatory scrutiny however, as whilst interest rates remain low and competition fierce, lenders will be forced to price well. As these dynamics shift, there could be scope for price creep to the detriment of the customer.

One thing to remember, this type of business suits a straightforward borrower profile that can be transacted easily at volume. Mainstream lender focus on this type of business could create an inadvertent detriment for customer sectors such as the self-employed, older borrowers, first-time buyers in need of family financial support, complex income and adverse credit profile. Of course, this opens markets and opportunities for other lenders to provide remedies.

Treasury Select Committee report on financial inclusion, pub. May 2019

FCA written evidence to TSC: 'Together with the survey results that older consumers (65 years and over) and those on lower household incomes (less than £15k per year) use their branch at least once a month, branch closures are likely to inconvenience these groups more than others.

'We have heard that for some consumers, for example with learning difficulties and conditions such as autism, bank branches provide greater security and a source of support that can help them to meet their financial needs better than online channels.'

> " I think there's a really important point we mustn't forget when it comes to developing the mortgage process – and indeed wider banking services – human contact and judgement are absolutely vital for some customers.
>
> Take the pensioner who lives alone and is being targeted by fraudsters; or the husband or wife suffering from domestic abuse in the form of financial control; the elderly parents being pushed into remortgage by the in-laws – it matters hugely that financial services continue to support these customers as well as those who demand quicker, slicker technology-based services."
>
> Sarah Davidson

Competitive pressure

Every company that we interviewed spoke of the need to embrace digital because of competitive pressure. The recent announcement of the Apple credit card (with Goldman Sachs and Mastercard) was one example given of how tech firms are casting an eye over parts of the economy where they can add real consumer value through their scale and data[4]. Aggregators are circling the broker market for the easy pickings and the funding scale and sustainability that tech giants bring to any market means that lenders could find themselves disintermediated if their offers are not relevant to their core constituencies. What is striking is that many lenders are bound by the term 'lender' but this may be encouraging lenders to look at the wrong peer groups when they are considering their next move.

Action points

- ✔ Look at and understand your digital peer group (aggregators vs marketplace apps vs traditional lenders).
- ✔ Who is your digital customer?
- ✔ What specific digital innovation would they value?
- ✔ Understand the commercial impact of changes in the balance and value of executional, partially and fully advised business.

[4] https://www.apple.com/newsroom/2019/03/introducing-apple-card-a-new-kind-of-credit-card-created-by-apple/

7.1 Regulatory environment

The demand side is one element of the equation. The FCA's recent paper (The FCA Mortgages Market Study For the supply side, MW16/2.3, published in March 2019)[5] highlighted several key areas the regulator wishes to address in terms of technology. The paper found 25 per cent of customers don't switch within six months of lapsing onto SVR. There is a significant question around why. Difficulty, effort, cost saving may all be partly to blame.

The FCA is also increasingly focused on consumers being recommended a suitable mortgage that is also the cheapest or best value. It estimates that around 30 per cent of consumers in 2015 – 2016 could have found a cheaper mortgage with the same key features as the product they chose. On average, these consumers paid an estimated £550 per year more over the introductory period compared to the cheaper product.

The recent paper said: 'Our strong preference is to deliver the remaining remedies through voluntary agreement with industry. On giving consumers a clearer idea of the products for which they qualify, over the coming months we would like to see tangible outputs from the effort firms have put into giving and/or getting access to qualification information.'

The key to this is a tool that allows consumers to 'access, assess and act upon qualification criteria earlier'. The regulator cites the example of insurers, which have allowed third party tech platforms to develop a standard pre-qualification underwriting process that feeds into a majority of providers. The FCA has noted this would theoretically be possible in the mortgage market, but 'widespread lender participation is needed' if it is to succeed. Perhaps the biggest shift in regulatory focus contained in the FCA's paper is the much-contested argument for making it easier for lenders and brokers to offer consumers execution-only access to products. The FCA's analysis found that 51 per cent of product transfers are execution-only. It's a strategic decision for lenders whether commercially, or in terms of responsibly lending to borrowers, how they combine execution-only with advised sales. For many, it strikes at the heart of the digital dilemma.

This favours lenders with scale to make its development meaningful. The open banking API[6] framework should allow for real time, automated and entirely secure affordability underwriting – but it relies on lender participation beyond the big banks already governed by PSD II[7]. Even within this existing remit, the technology to deliver real time income verification is still limited. It is likely that its development will be focused on execution-only business first and foremost, long before it touches new customer acquisition, which is not profitable in today's market. The regulator has noted it is 'mindful of the risk of unintended consequences of intervention' but the indication is that, should the market continue to fail to deliver, intervention will force collaboration.

Assuming that the development of real-time affordability assessment and automated income verification via API does occur, it will have massive implications for lenders that differentiate based on manual underwriting: their USP will be aggressively challenged. Thought must therefore be given to every element of a customer and property profile assessed manually – are there opportunities to separate income verification from credit, security, asset wealth and infrequent or lumpy income patterns?

The FCA's move back to execution-only mortgages suits some lenders more than others but it is also an acknowledgement that consumers are fed up of being told they don't know what's best for them and must go through a fully advised application process. The question will remain - will consumers make the right decision given more choice?

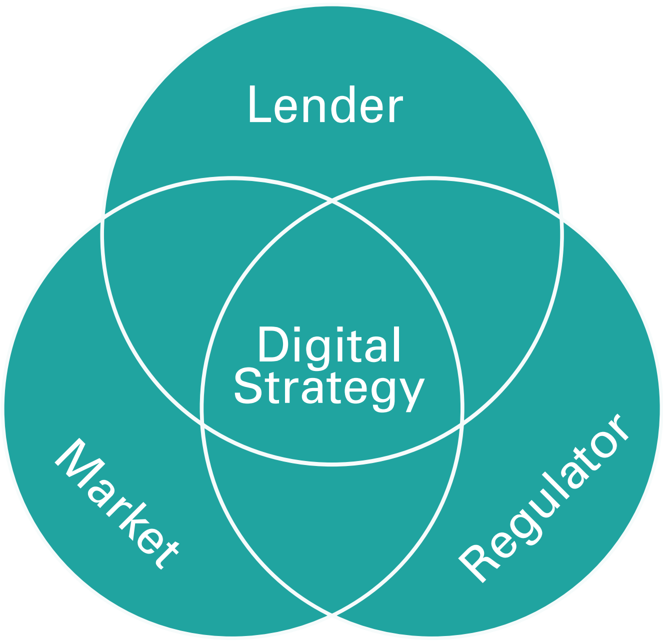
Action points

- Understand which parts of your processes digital technology can really enhance.
- Plan for how third party platforms will impact your business flows and internal processes.

[5] https://www.fca.org.uk/publication/market-studies/ms16-2-3-final-report.pdf
[6] https://www.howtogeek.com/343877/what-is-an-api/
[7] https://www.fca.org.uk/publications/policy-statements/ps18-24-approach-final-regulatory-technical-standards-and-eba-guidelines-under-revised-payment

> "There's a danger that online delivery of mortgage advice is just as biased as human advice can be, when the algorithms start steering customers towards products that have been most recommended in the past to 'customers like you also bought this'."
>
> Sarah Davidson

Figure 1. All responders acknowledged that an effective digital strategy balances the competing demands of the market, regulators, and their own particular circumstances and objectives.



7.2 Distribution strategy in the digital age

The FCA highlighted the need for a whole of market database of intermediaries that allows consumers to search and assess brokers based on the 'extent to which an intermediary uses a broad or narrow range of lenders and products, distinct from the range of products they offer'. The regulator has also suggested this should include brokers' specialisms such as self-employed, high net worth etc. This tool is being developed by the Money and Pensions Service (MAPS)[8], headed by former FSA chief Hector Sants.

Niche lenders, smaller building societies and challenger banks will and should continue to target specialist sectors, focusing their efforts on niche customer sectors such as the self-employed, older borrowers, first-time buyers in need of family financial support, complex income and adverse credit profile.

How technology supports this part of the market should be quite different from how it is used to increase efficiency in the vanilla end of the market.

Digital offers speed but this is not an end in itself. The speed is valuable if it comes with certainty. As one lender relayed, brokers would rather have a quick 'no' than a drawn out 'maybe'. Everyone wants reassurance and security.

The FCA's note on the need for a whole of market database of intermediaries that allows consumers to search and assess brokers based on the 'extent to which an intermediary uses a broad or narrow range of lenders and products, distinct from the range of products they offer' ties into this strategy neatly.

The FCA paper also notes: 'There are strong incentives on an intermediary to find a customer a mortgage, and to do so as quickly as possible, to generate a procuration fee. And this is in line with a typical consumer's needs. However, the incentives on an intermediary to search extensively for the best value mortgage are weaker.

'This is reflected in intermediaries' panel strategies. These typically seek to cover a broad range of consumer circumstances (e.g. self-employed, poor credit history, etc) rather than a range of lenders for a specific customer, which could result in finding a cheaper mortgage.'

This raises the question of whether there is potential for networks and clubs to build a range of lender panels based on customer segmentation.

This approach would not necessarily require too much to change – rather that the focus shift. Where products are currently searched based on affordability, panels could be narrowed based on customer profile and requirements, allowing a more bespoke approach to provider selection and subsequent product recommendation. Distribution – and distribution technology – is likely to be key to delivering on this strategy for specialist and smaller lenders.

Distribution according to our interviews is a moving feast with no one knowing how this will play out but everyone expecting it to significantly evolve. Some do foresee a digital portal in time which sees banks and brokers 'bid' to win mortgage business straight from the consumer and most expect API powered, third party applications to grow in number and source external transaction data with the permission of the customer to offer for tailored house buying affordability services. These may develop to offer the consumer a larger range and fairer deal possibly through a fee-for-service structure, eliminating bias caused by the traditional commission structure that brokers use.

Where a mortgage lender's biggest priority is customer retention, lenders could offer customers the ability to automatically switch to the lowest rate mortgage rate available as and when they come available on a real-time or monthly basis, guaranteeing the customer is always on the best rate in return for a monthly or annual subscription and providing an effective retention mechanism.

A constant theme is the number of models on the market for mortgage distributors. The battle between Customer Relationship Management systems and the sourcing system solutions is as yet unresolved. Building multiple APIs is neither practicable nor profitable for many lenders (especially if their operational platform providers are not inclined to build them for all parties). It means many of those we spoke to are awaiting what one lender described as the 'VHS Betamax'[9] moment. Another lender pointed out that the variety of solutions in play (including the market wide solution for all lenders of a current high street brand) means that, if outsourcing is the strategic path, choosing well is crucial but choosing to act at the right time is just as important. Aggregators, one pointed out, may become the new introducers for straightforward lending. What many agreed on was that digital connectivity means more business so operations will need reconfiguring to deal with an increased level and different kind of demand.

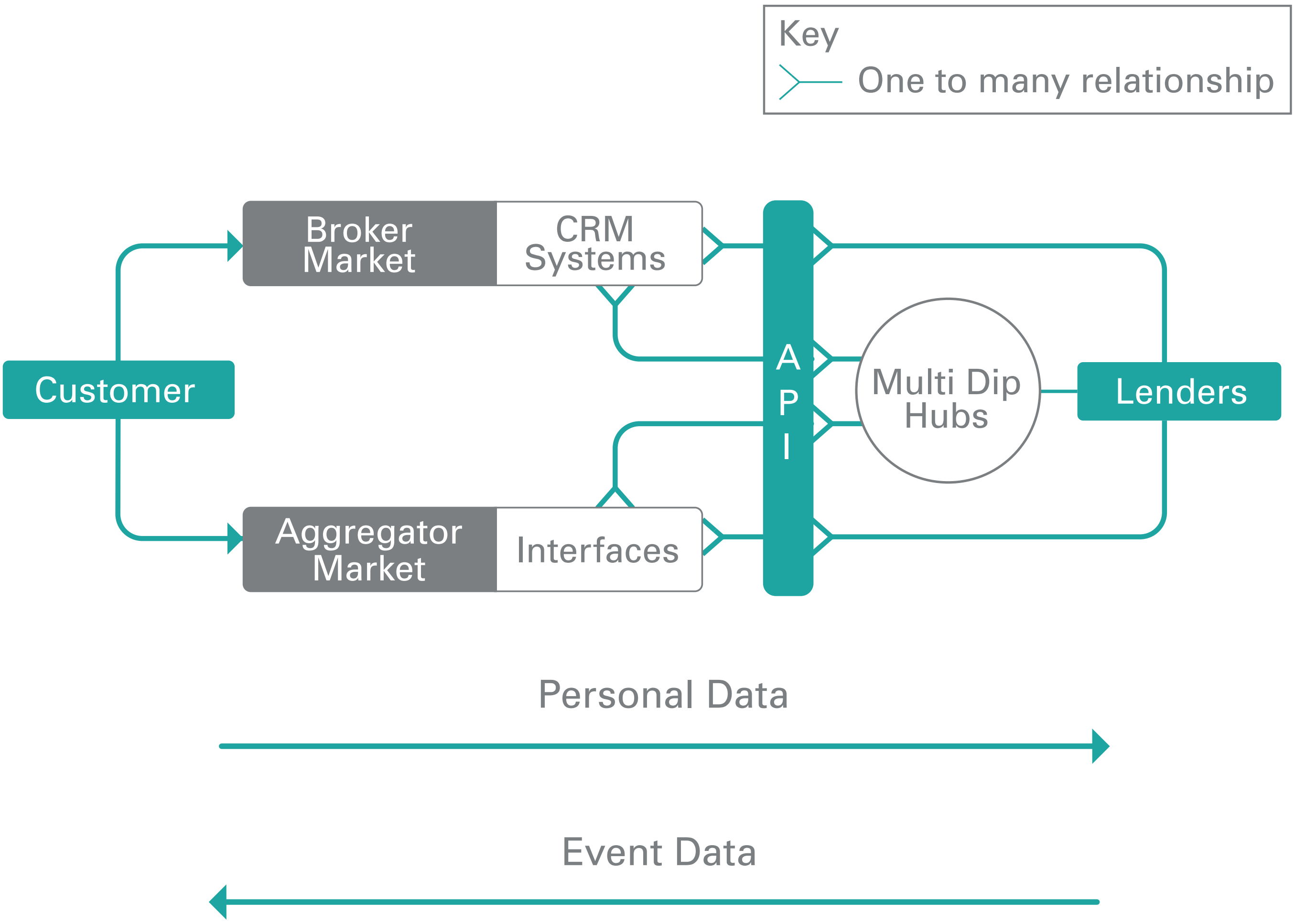
Action points

- Which customer segments can you address with an intermediated digital offering?
- Understand the impact on other parts of the business of increased levels and different kinds of demands.

[8] https://singlefinancialguidancebody.org.uk.
[9] https://en.wikipedia.org/wiki/Videotape_format_war

It is the volume of potential interfaces (Figure 2) that causes the majority of issues for lenders. Those with in-house proprietary systems and large balance sheets take a different view to those with less resource and the constraints of out-sourced platforms. Many are waiting to see which way the market turns before committing in earnest – others are following all the avenues they can and a few are opting to choose early to get early mover advantage.

Figure 2. The models under adoption by lenders in terms of origination are constrained by legacy system issues and budgets.



Multiple options for integration have emerged. The scale of opportunity is only qualified by the technical and resource constraints facing lenders. As we will see in the next chapter, the interfaces are key to the flow of information but data obligations also mean that personal data cannot flow back and forth without consideration of legal obligations and privacy controls.

At least one lender noted this data exchange was key in developing APIs.

7.3 Data strategy

During conversations there was little reference to data strategy and yet in an ecosystem of interfaces where data is moved at will between lenders, third-party suppliers, and increasingly distributors through API's, data – and breaches in data security – are a key dependency of digital solutions. One lender pointed out that one big data breach might well be enough to undo a lot of the digital progress to date.

Few lenders had much to say about security in our interviews. Most are relying on GDPR[10] to define hand off points and are building with a view to receiving data but not passing back personal information – simply event driven data (like mortgage offers or DIPs). But understanding the rules of data ownership and usage are key in the design of solutions. The integration points are where systems can be at their most vulnerable, yet connectivity offers the maximum gains and this, for many to whom we spoke, is where analysis will become more powerful.

> "GDPR is no panacea. If data originates in a broker and then becomes the property of the lender, why should we expect regulators and consumers to differentiate with regard to reputational damage?"
>
> Michael Hawthorne

Most lenders are content to operate in one of two ways. One is to primarily rely on GDPR to cover the hand-off points (though this disregards the reputational impact for lenders if one of their brokers does have a data breach) or to commit only to supplying event data within the confines of a transaction (mortgage offer / DIP etc). Of course, as at least one lender pointed out, where this becomes more difficult is in the arena of product transfers where advice should be supported by client information on circumstances known to the lender but perhaps not to the intermediary. One lender is thinking about this exchange and the issues and opportunities it raises.

Data has traditionally been perceived as just one aspect of a technology project; it has not been treated as a corporate asset. Consequently, the belief was that traditional application and database planning efforts were sufficient to address ongoing data issues. Corporate data stores have grown in both size and subject area diversity and the regulation has become more intricate. Data is corporation wide, which makes ownership problematic as it sits across functions.

> "Data is the point of digitalisation. If you look at the tech giants, data is their currency to the point that some are mulling introducing their own cryptocurrencies. Financial institutions already have massive amounts of data and so have a head start."
>
> Richard Kalas

The value of data is accepted; the results of reporting and analytics have made data the key ingredient of many new business initiatives. It's common for application data to be shared with as many as 10 other systems. So while everyone we spoke to acknowledges that the value of data has evolved fewer companies have been able to adjust their approaches to capturing, sharing and managing data assets.

The idea behind developing a data strategy is to make sure all data resources are positioned in such a way that they can be used, shared and moved easily and efficiently. Data is no longer a by-product of business processing – it's an asset that enables processing and decision-making. A digital data strategy is a plan to improve all of the ways you acquire, store, manage, share and use data, making data accurate, complete and timely and then only the property of those who are trusted users.

10 https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/

One lender highlighted Citymapper as an example of where they are headed on their digital and data journey – an app that illustrates the behavioural insights that technology can provide. By mapping real journeys, transport policy can be agile to meet peaks and troughs in demand. Strong data flows are extremely attractive to organisations that have an eye on open banking.

Data and blockchain

Blockchain continues to divide opinion. It has the potential to radically alter the process by which financial institutions handle finance generally let alone mortgages. The technology could remove cost and friction from the process, create transaction records that are resistant to modification, and facilitate near-instantaneous settlement.

It offers the opportunity for all parties to have access to agreements and a full audit trail of changes. It also enables digital identification for confirmation of contract agreement and through smart contracts, blockchain can automate parts of the process which then can become immutable and non-repudiable with no data duplication or reconciliation errors. This would reduce complexity and costs such as legal fees and reduce the time for the release of funds and time between exchange and completion (so there is less knock-on effect from property chain). But it is by no means an embedded solution in consumer finance. Blockchain is in its infancy but is attracting the interest of organisations and regulators alike[12]. The dichotomy of private secured vaults of banking data and open swaths of private consumption data via open banking has to be reconciled. Open banking is a great first domain of data that in most use-cases goes hand-in-hand with other data sources to which banks have only indirect access (e.g. behavioural or that of the 3rd parties). A watching brief is required.

Action points

- Understand your relationships, data dependencies and liabilities.
- Know how data relationships support your business and digital strategy.
- Plan data flows to meet legal obligations.

"A data strategy will offer a way of optimising businesses. The analytics allow business to deal with inefficiencies. Formula 1[11] is a good benchmark of optimising real-time performance."

Michael Hawthorne

"Data has many elements. Of course confidentiality is one which GDPR attempts to address, but block chain offers authenticity of the data story – integrity."

Michael Hawthorne

[11] https://www.collinsdictionary.com/dictionary/english/formula-one
[12] http://www.europarl.europa.eu/cmsdata/150761/TAX3%20Study%20on%20cryptocurrencies%20and%20blockchain.pdf

7.4 A strategy for technology partners

The research found only one lender was not outsourcing any of its intermediary digital development. For the most part, lenders have already outsourced platforms, systems and interface work – not to mention the hiring and contracting of developers from consultancy firms. This is understandable. Technology disrupts business and presents significant challenges for CEOs and NEDs who must find ways for their company to adapt quickly to maintain or grow market share. Strategic technology partnerships offer a means of fast-tracking expertise. Strategic partners are experienced with different industries and technology solutions. Their job is to stay current as new technologies are developed and know which platforms and applications will bring the best value for their enterprise partners.

Technology partners also have relationships with resellers, industry organisations and enterprises across industries. This enables them to deploy and service whatever technologies their partners need. Plus, they have buying power that benefits the enterprise partner with lower prices or the availability of products or services from manufacturers that do not work directly with end users. They can provide too the resources at whatever scale is needed by the client enterprise, including sales teams, service teams and technicians in the field.

However they are clearly not a panacea. Some responders were quick to highlight the shortcomings of resources, understanding and even a consistent point of client contact. As with every buying decision, understanding what you need, what is on offer, the difference, the capacity issues of suppliers, the relative importance of your spend is key to partnering correctly.

To find the right third-party partner to develop and maintain your technology infrastructure, it is crucial to understand what you are trying to deliver. Many lenders are beholden to operational providers but too often, because they feel on the back foot or are not an influential enough purchaser, they are asking 'what have you got?' rather than 'is this right for our business?'

A partnership strategy means lenders can understand if the partner offers the services and types of technology their company needs, its place in the client pecking order the partner's priorities (global vs local) and whether the business model suits the vision they have of the future.

At least one lender expressed the sentiment that they felt 'over a barrel' with their current technology provider. Another mentioned that until recently their platform provider had been very behind the curve. Interestingly, with the odd exception, few spoke in glowing terms of any of the partners they are currently dealing with. One lender cited the history of text technology as an example of why new technology paid for by old business models is anachronistic. 'We have moved from paid-for texting to Whatsapp[13] in less than a decade – business models have to change to recognise this'.

Finally, when it comes to the due diligence of partnering some lenders are ahead of others.

> "Every supplier comes with their own legacy so it's important to understand that and what it entails."
>
> Richard Kalas

[13] https://www.whatsapp.com

As one interviewee suggested, 'if you are buying into cloud solutions it is important to understand what agility this allows your organisation, and if you are not – how that impacts your ability to manage the solution five years down the line.'

This sentiment is as important when it comes to understanding other dependencies over and above the technology itself.

Action points

- Understand what your organisation does well in the digital space and use external resources to build a digital team that can deliver what your business really needs.
- Understand partner resource and legacy issues and how that impacts your ability to deliver.

> "Firms very regularly overlook technical due diligence of their partners. By this I don't mean issues of financial stability but what do partner firms know about their suppliers. The Target data breach[14] in the US, in 2013 and the Panama papers breach in 2018, for example, illustrates how the weak spots can often be internal threats from within the supplier's own outsourced arrangements."
>
> Michael Hawthorne

[14] https://eu.usatoday.com/story/money/2017/05/23/target-pay-185m-2013-data-breach-affected-consumers/102063932/
https://www.csoonline.com/article/3064828/panama-papers-leak-explained-what-you-need-to-know-about-the-mossack-fonseca-hack.html

7.5 Developing a digital culture to deliver digital change

From the boardroom to the shop floor, our conversations revealed the level of digital understanding varies wildly. While developing these capabilities is crucial, an equally critical part of the digital transformation is the need to develop a different culture. Digital was once something that took place in labs and incubators – it still does in some organisations but increasingly the view is to think bigger and make it part of 'day to day' practice. That requires adopting a mind-set similar to that found in successful digital enterprises when it comes to everything from establishing a challenging and coherent digital vision to acquiring new data capabilities and adopting a test-and-learn approach with rapid iterations.

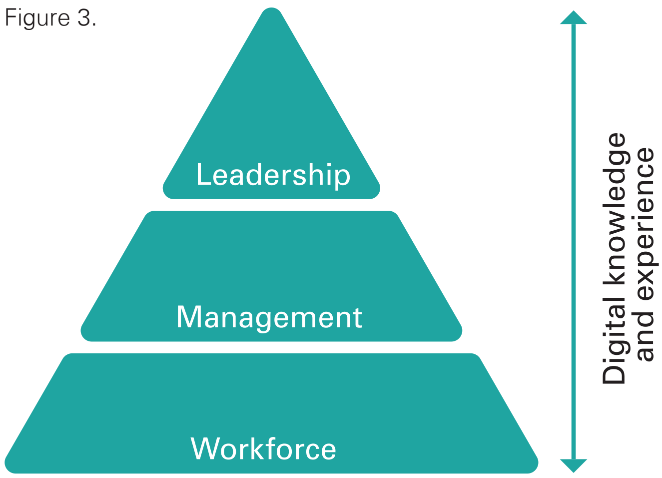
Across the value chain – from operations and IT to marketing and sales to product development and finance – the data and technology required to realise this vision in lenders often already exists. What's missing according to our conversations with lenders is the organisational orientation and mind-set to have small, cross-functional teams working together through rapid testing and improvement programmes. Indeed, where many of the new capabilities required cannot be found in lenders, they are being imported or bought in.

The democratisation of learning, related to the emergence of digital technology, is more prevalent than ever through Massive Open Online Courses (MOOCs), tutorials, and YouTube videos. With information being widely available, our relationship to knowledge has changed. Unlike centuries past, you cannot simply learn something once and build your entire career on this skill set. Today, people need to learn how to continuously learn and update their skill sets throughout life. This is even more important given our current context where we are seeing an acceleration of skill obsolescence. 50% of tomorrow's skills and professions do not exist today. Each day, new tools and languages emerge; we do not create a website the same way today as we did a year ago. The same goes for 'growth hacking', hardly anyone was talking about it a few months ago and now everyone is looking to recruit a top growth hacker.

> "Only a couple of decades ago, if you were a cryptologist, you would have one employer – government. They deal in secrets. Today that same person can be employed anywhere there is a computer and a need to protect or hack digital systems."
>
> Michael Hawthorne

Few in the nation's boardrooms and institutions who oversee these initiatives have ever programmed computers themselves. Never has it been so important to be able to update skills in real time, in order to perceive, understand, and adapt to changes in your market or profession. This is as true in boardrooms as it is on the shop floor. Indeed many lenders reported acceptance amongst staff of new ways of doing things. It was not uncommon for responders in the survey to express disappointment with their own organisation's lack of progress in digital.

Figure 3.



> "There is arguably a ten-year window until the generation who live and breathe the digital culture are in the boardrooms of our lenders. The challenge is to ensure in the meanwhile enough is done to make the business relevant for that generation internally (executives and the wider workforce) as well as externally (customers)."
>
> Michael Hawthorne

Technical literacy is necessary in order to acquire certain technical skills without having to systematically go through the IT department. Understanding the tech ecosystem, major trends, and disruptive technology in the market and profession is vital. Mastering the use of tools is also an essential skill. Beyond simply learning how to use the tools correctly, it is important to understand their purpose and how different tools can be used together and the benefits that organisations can derive from them. Everyone can acquire these skills, but they are not enough to transform an organisation as a whole.

By definition management culture is vertical and based on a hierarchical structure; these practices are no longer in line with the more network focussed methodologies inherited from the Internet which are characterised by their decentralised and horizontal nature. Without going as far as saying that all digital transformation initiatives require organisations to switch to a freedom-form company model, it is true that it does involve rethinking and reviewing various internal mechanics including individual evaluations and decision-making processes (figure 3).

The industrialisation of digital skills requires questioning current managerial models and creating a common culture by training employees on best practices resulting from experience and by implementing a strong digital culture inherited from the Internet. As one responder put it,'hiring hackers to protect your systems is problematic if they are not considered fit and proper.'

> "We are entering a period when the establishment does not possess the skill sets required to deliver the data and digital innovation needed to create the future value of UK businesses."
>
> Michael Hawthorne

Action point

- ✔ Bring on people in the business who can really add value to your digital proposition in all business areas.

7.6 A really digital future

> "Digital is ultimately about simplifying your business and leveraging the learnings from your digital real estate."
>
> Richard Kalas

In discussion with lenders, it is clear a few do have an eye to looking at digitalisation as an opportunity to re-wire the entire mortgage value chain. For example, conveyancing and valuation services are not just candidates for digitisation but digital transformation according to a lender's particular risk appetite. They present opportunities to use data differently and to speed up offers by re-imagining the event process of mortgage applications. Speed is not a panacea in itself but a means to an end. Lenders acknowledge that speed accompanied by certainty not only improves the borrower's journey but enables them to more quickly consolidate market share.

The pace and range of solutions is bewildering but some are beginning to articulate what this new value chain might look like. The right digital solution, according to our conversations, appears to hover between complete transformation (which no lender is considering) to a hybrid depending on their own understanding of the organisation's selling points and product range, to a focussed low cost product provider.

So what could digital do now for lenders?

Some lenders with direct operations were very concerned with the first initial contact and customer engagement. We know that many web-form and paper-based approaches are prone to drop out, are arduous and lengthy, and offer little in the way of reusable data that slows the customer process down from outset. With the right API tools, the vision goes, this step could be much easier and faster for the customer and set the tone for a frictionless customer journey.

For some, the opportunity here in the direct space is to deliver a customer journey that starts as the destination for the home buying market and that builds additional digital functionality into this tool (e.g. open banking for insurance products).

The opportunity to remove many of these barriers exists too for intermediaries who may themselves take the lead.

At the verification stage potential borrowers are still experiencing the same issues as the point of engagement. The opportunity is to introduce digital signatures and verification to leverage digital channels and create a 100% digital onboarding process, with improved security that attracts and engages new customer segments. This allows lenders to embark on the first step of optimising the Know Your Customer data collection.

A current offline affordability assessment reflects a lack of genuine knowledge of the individual and no intelligence is applied from lifestyle activity resulting in the need for invasive and time-consuming questions of potential borrowers. There is an opportunity to introduce automated and intelligent assessment of affordability based on actual transaction behaviour (Automated Income Verification) in a highly scalable and robust framework that will offer optimised approval criteria, reduce approval time from weeks to minutes, reduce exposure to delinquency, increase ability to lend and customer satisfaction and trust. Some of our interviewees are well down this road.

In terms of servicing there remains the challenge of a dependence on physical documents that can result in human error and inefficiencies and add to staffing costs to support manual operations. Automating the underwriting process, where this suits the proposition, makes manual intervention the exception with configurable rule-based engine and rapid deployment. This should increase speed, reduce cost to close, offer continuous improvement of all business process Key Performance Indicators. Elsewhere, where it suits their risk appetite, lenders are working to move the valuation instruction (Automated Valuation Model[15], and triage valuation) practices further up the value chain (to the broker).

[15] https://en.wikipedia.org/wiki/Automated_valuation_model

Opportunities becoming realities

Figure 4 Our research revealed these digital opportunities that lenders are actively embracing.

Acquisition › Processing › Servicing

Customer | Broker | Solicitor/LMS | Valuation Services | Underwriter | Lender

Processing › Assessment › Application › Offer › Completion › Onboarding › Monitoring & Default Mgt

Customer Issues

Customer Engagement

- Web form and paper based, prone to loss
- Arduous and lengthy
- Reusability of data low
- Slows processes down from outset

Manual ID Verification

- Web form and paper based, prone to loss
- Arduous and lengthy
- Reusability of data low
- Slows processes down from outset

Affordability Check

- Lack of genuine knowledge of individual
- No intelligence applied from lifestyle activity
- Invasive and time consuming questions

Manual Paper-based process

- Overly dependent on physical documents
- Increased human error and inefficiencies
- High staffing cost to support manual operation

Digital Enablement

API Powered intermediary tools

- Make this step easy and fast for intermediaries and their customers
- The beginning of frictionless customer journey

Digital verification & E-Signature

- Leveraging digital channels to create 100% onboard process
- Improved security
- Attracts and engages new customer segments e.g. millenials

Affordability passport

- Automated and intelligent assessment of affordability based on actual transaction behaviour
- Highly sociable and robust framework

Robotic business process automation & machine learning

- Automating the underwriting process making manual intervention the exception
- Configurable rule-based engine
- Rapid deployment of a solution

Figure 5 Innovations for the longer term.

Acquisition › Processing › Servicing

1 Existing customers

Advanced insight driven customer engagement

- Derived from:
  Transaction based insights and CRM data
  Public domain data and external data.

2 New customers

Mortgage bidding platform

A mortgage website which sees banks and brokers "bid" to win mortgage business straight from the consumer. An API powered, third party application can also source external data with the permission of the customer.

✓ Upfront loan-to-value evaluation

3 Your existing customers

Blockchain

- Potential to radically alter the process by which financial institutions handle mortgages.
- The technology could remove cost and friction from the process, create transaction records that are resistant to corruption, and facilitate near-instantaneous settlement.

✓ All parties have access to agreements and full audit of changes.
✓ Digital identification for confirmation of contract agreement
✓ Smart contracts can automate parts of the process.
✓ Immutable and non repudiable - no data duplication or reconciliation errors.
✓ Reduced complexity and cost (e.g. no legal fees).
✓ Reduced time for release of funds and time between exchange and completion (less knock on effect from property chain).

4 Your existing customers

Automated Digital Retention

- Lenders could offer customers the ability to automatically switch to the lowest mortgage rate available on a real-time or monthly basis.

8. Conclusion

Lenders have, in the view of most experts, three to five years at most to become digitally proficient. Many are trying to decide what to do and some are well down the road of implementation. All agree on the perils of taking no action. Revenues and profits will migrate in some product areas at scale toward institutions that: successfully use digital technologies to automate processes, create new products, improve regulatory compliance, transform the experiences of their customers, and disrupt key components of the value chain. Institutions that resist digital innovation will likely be punished by customers, financial markets, and perhaps even regulators.

It is worth noting that, in the rush to digitise, Megan Butler, Executive Director of Supervision (Investment, Wholesale and Specialists) at the FCA, said that incidences of IT failure were increasing rapidly, and the FCA did not expect such incidents to disappear[16]. In the year to October, firms reported a 187% increase in technology outages to the FCA, with 18% of all the incidents reported being cyber-related.

Successful strategies need to be based on a clear understanding of how digital creates value for an organisation, granular perspectives on consumer behaviour and market dynamics, and careful prioritisation by top management among hundreds of potential digital investments. The culture of organisations needs to evolve more quickly so that the decisions and choices being asked of them by this technology can be taken confidently in the light of experience and real understanding. Digital platforms have become a feature of the corporate landscape. For lenders, a digital strategy, pursued alone or cooperatively, is becoming a competitive necessity. Companies that have yet to make their move may find it increasingly difficult to catch up.

Action points

- Who is your customer?
- What specific digital innovation would they value?
- Look at and understand your digital peer group (aggregators vs marketplace apps vs traditional lenders).
- Understand which parts of your processes digital technology can really enhance.
- Which customer segments can you address with an intermediated digital offering?
- Which distributors can you work with to deliver this?
- Understand your data dependencies and how data supports your business and digital strategy.
- Understand what your organisation does well in the digital space and use external resources to build a digital team that can deliver what your business really needs.
- Bring on people in the business who can really add value to your digital proposition in all business areas.

[16] https://www.fca.org.uk/news/speeches/cyber-and-technology-resilience-uk-financial-services

9. Terminology

Application Programming Interface (API)

An Application Programming Interface (API) is a system of rules that allow two or more entities in a communications system to transmit information. The protocol defines the rules, syntax, semantics and synchronisation and possible error recovery methods. Protocols may be implemented by hardware, software or a combination of both.

Automated Income Verification (AIV)

Automated Income Verification (AIV) aims to help lenders lend more responsibly whilst removing the need for manual verification and its associated delays in the customer journey. Used in lending affordability assessments, it takes third party feeds (such as current account data) and uses complex algorithms in conjunction with lending credit policy rules.

Automated Valuation Model (AVM)

Automated Valuation Model (AVM) is the name given to a service that can provide real estate property valuations using mathematical modelling combined with a database.

Blockchain

A blockchain is a growing list of records called blocks, which are linked using cryptography. Each block contains a cryptographic hash of the previous block, a timestamp, and transaction data. A blockchain is resistant to modification of the data. It is an open, distributed ledger that can record transactions between two parties efficiently and in a verifiable and permanent way.

Cryptocurrency

Cryptocurrency is a digital asset designed to work as a medium of exchange that uses cryptography to secure financial transactions, control the creation of additional units, and verify the transfer of assets. Cryptocurrencies use decentralised control as opposed to centralised digital currency and central banking systems.

Cryptography

Cryptography or cryptology is the practice and study of techniques for secure communication in the presence of third parties called adversaries. More generally, cryptography is about constructing and analysing protocols that prevent third parties or the public from reading private messages; various aspects in information security such as data confidentiality, data integrity, authentication, and non-repudiation are central to modern cryptography.

Digitisation

Digitisation is the process of converting information into a digital (i.e. computer-readable) format.

Digitalisation

In business, digitalisation most often refers to enabling, improving and/or transforming business operations and/or business functions and/or business models/processes and/or activities, by leveraging digital technologies and a broader use and context of digitised data, turned into actionable, knowledge, with a specific benefit in mind. It requires digitisation of information but it means more and at the very centre of it is data. While digitisation is more about systems of record and, increasingly systems of engagement, digitalisation is about systems of engagement and systems of insight, leveraging digitised data and processes.

10. Suppliers in the market

Below are some of the suppliers in the current market. This list is not exhaustive (nor is it an endorsement) but these companies were referred to in the course of the research we undertook as businesses that provide digital options for lenders and intermediaries. Descriptions are taken from vendors' own websites.

- 360 Dotnet – lead provider of intermediary software solutions.
- Capita Mortgage Solutions – Omiga platform is a lender based end to end mortgage Origination platform.
- DPR – provide a technology platform that connects lenders and intermediaries.
- Mortgage Brain – software solutions for intermediaries and lenders.
- Mutual Vision – technology solutions for smaller and medium sized players in the market.
- IRESS (includes Trigold) – software that connects lenders, brokers and buyers.
- Phoebus Software – technology for lending and savings products.
- Sopra Banking Software – end-to-end mortgage management technology.
- Twenty7Tec Group – technology that connects intermediaries and lenders.