



Partner Spotlight

Collaborate to Innovate: How the Financial Industry Should Approach Digital Transformation

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A BIG BANG FOR BANKING

An easy caricature of the regulators of the banking industry is that new regulations act as barriers to entry. They pile costs onto existing players, they require ever increasing capital and collateral, and they narrow the IT choices of those seeking to differentiate. Added to the lesson of the financial crisis that the dominant players are "too big to fail," it is understandable that the idea that regulation protects incumbents and stifles innovation took root.

This view is looking increasingly outdated. Some regulators are now given a specific brief to nurture innovation and start-up banks, as in the U.K. Some are becoming increasingly supportive of the cloud, as in the Netherlands. In the EU as a whole, the second Payment Services Directive (PSD2) and the Single European Payments Authority (SEPA) are aimed at opening up the banking industry to new forms of competition.

This conscious effort to diversify the financial service industry is coinciding with a rush of new technologies which have cross-industry application, such as Big Data analytics, social media, and the cloud, while wearables and cognitive computing are on the horizon.

The combined effects of these changes could be that the banking industry is about to see its own version of the big bang which saw the U.K. financial markets transformed in the 1980s. Customer experience will be revolutionized and the industry will move toward real time, and in a relatively short space of time, the outlook will be transformed. In this environment, the existing financial institutions will have to innovate to survive.

However, to improve customer service across the board, they will also have to cooperate. The industry as a whole will have to move in the same direction to ensure that there are not

inconsistencies and bottlenecks in customer service. It is not just the banks that need to keep evolving, and not just the retailers, but the bits between the banks and retailers as well.

It's easy to imagine where the focus of the individual players will be. The natural urge will always be to focus on improving what is closest to home and can be controlled most directly: car manufacturers concentrate on building better cars rather than better roads, even though each contribute to the driving experience. If the roads are deteriorating, manufacturers will design better suspensions rather than fix the roads. Just as with road networks, it is necessary to have bodies dedicated to managing the public and shared infrastructure of the financial industry.

"You hear a lot from banks that they have the funds for innovation, but some problems are best addressed horizontally."

Fabian Vandenreydt, Head of Markets Management, Innotribe and the SWIFT Institute, SWIFT

THE CHALLENGES TO INNOVATION

The rate of digital innovation is unprecedented. And yet the banking industry seems to grind forward slowly. Why is this?

There are many reasons why banks may find it difficult to innovate, which can be broadly divided into internal factors and external factors.

On an individual basis, banks face conflicting priorities. Many CIOs remain devoted mostly to "running the bank" rather than "changing the bank," making it difficult to focus on innovation. Budgets must be reserved first to simply "keeping the lights on," then to legacy modernization, and only then to pure innovation. The regulatory burden and the threat of fines for inadequate compliance compound this problem, keeping banks focused on immediate concerns and discouraging them from moving too far out of the mainstream.

Legacy software also has the potential to sway the interest of workers in favor of protecting the legacy and so their own livelihoods. Workers will inevitably be tied to existing working patterns. The silo mentality which results from this can make innovation much harder to achieve. It might make collaboration within the bank tougher: the bank might have an incomplete picture of data to support new products; and streamlining of internal processes might take precedent.

These factors combined can create a debilitating sense in which banks exist for two reasons: to run legacy software and to bankroll a growing compliance department.

One partial solution to these problems is to keep innovation at arms' length, in the form of corporate venture capital funds. The likes of Santander Innoventures, RBS' Innovation Gateway, and Barclays' debt finance fund are recent examples of this. Banks have also started to sponsor accelerators, incubators, and hackathons, as a way of nurturing new ideas one step removed from their own day-to-day operations.

"It's important to have a platform mindset where people who would benefit from a technology work together."

Fabian Vandenreydt, Head of Markets Management, Innotribe and the SWIFT Institute, SWIFT

From a collective point of view, another inhibitor is the extent to

which an innovation might depend on networks of companies – some of which are competitors, some partners – with a variety of players involved in any transaction chain. Culturally, banks and suppliers may be unfamiliar with the idea of cooperating, and they may prefer to see competitive advantage in retaining proprietary systems, keeping trade secrets, and relying on their bilateral relationships with existing customers.

One current example to consider is contactless payments. It's not enough for a bank to decide to issue contactless cards, or a mobile developer to issue NFC-enabled smartphones. It's not enough for point-of-sale terminal manufacturers to start providing contactless terminals. Rather, all of these things would need to happen together: other players such as mobile network operators, card manufacturers, and payment processors also need to be brought into the process. And all of this has to come together at the same time.

The story of the spread of real-time payments is similar. Banks need to be able to send *and* receive payments in real time for any progress to be made, so there is very little scope for a bank striking out by itself, and schemes such as Faster Payments in the U.K. have always proceeded on a national level.

This problem would be mirrored by any start-up pushing an innovation to the industry. If an innovation depends on it being ubiquitous before it can be useful, a start-up firm would not just need to persuade one bank of its merits. All banks would need to be persuaded.

Considering the different agendas of each of the players, this represents an extremely high barrier to industrial innovations. The scalability of an innovation may be fatally hampered at an early stage because of this. Even when the business case is clear for the industry as a whole, it might require the cooperation of players which are set to lose.

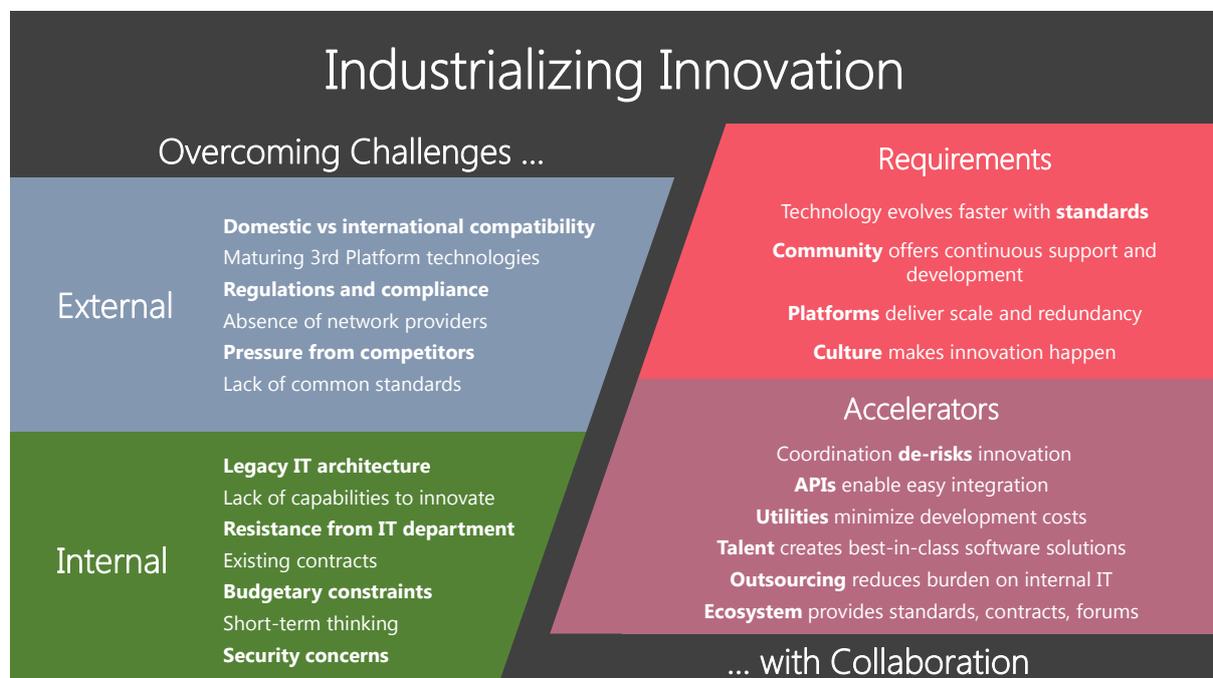
All of these factors suggest that the industry could use a body to, in effect, "outsource" at least some of its idea creation, and this body can also filter out the ideas most suitable for the industry as a whole and then evangelize for the best ones.

THE ORIGINAL COLLABORATIVE INNOVATION

The basic dilemma of any network or industrial innovation is that to invest in something a bank must be sure of its return, but it can only be sure of that return if other banks are making the same investment. Therefore none of the banks will invest before any of the others. Often, it will require regulators to force banks to invest in a particular area, such as faster payments schemes in countries such as the U.K. and Australia. But this will not be the case for every innovation. If a particular industry works across borders, there may not be such a regulator to push an issue forward. In any case, deciding where and how to innovate should not be left to regulators. To break this kind of impasse, the industry will need some kind of body which can drive forward collaboration.

FIGURE 1

Industrializing Innovation in the Financial Industry



Source: IDC Financial Insights, 2015

This is demonstrated well in the genesis of SWIFT. SWIFT is in fact the perfect example of a collaborative innovation to solve an industry problem. Formed in the 1970s, its original purpose was to replace the aging, unsecure, and manual system of telex messages for payments with a new automated system. It was founded as a cooperative of over 200 banks and has since added broker dealers, exchanges, depositories, and corporates to its membership – now spanning more than 10,800 institutions in over 200 countries.

A key benefit of this structure was the industrial breadth SWIFT could immediately call on, which saw an immediate explosion of SWIFT messages after the entity was founded. Banks knew that messages sent via the SWIFT network could be reciprocated by their partners. SWIFT itself enjoyed immediate goodwill from the participating banks based on its status as a member-owned cooperative. Just as the banks maintained ownership of SWIFT, so they had a stake in the network, and any innovations that came out of the entity. In the past 40 years SWIFT has brought many new services to market, such as the SWIFTRef global reference data utility and more recently a range of financial crime compliance solutions such as a hosted sanctions screening service.

SWIFT's position in the industry gives it a unique view of which types of innovations it can assist with. Where it can help is not necessarily in coming up with new ideas from scratch, but working with its members to select the most suitable ideas that are ready to be pushed out to SWIFT's network of financial organizations, and applying its own strengths to the idea, to give it the best chance of success.

INNOVATION NEEDS INDUSTRY STANDARDS AND CONTRACTS

In many areas of finance, from retail banking to wealth management, the key relationship is the bilateral one between bank and customer. It is more likely to be an exclusive one as opposed to one of many relationships the client holds with banks. It is therefore comparatively simple and more obviously rewarding to introduce innovations to this relationship and the bank may view it as a more likely area to benefit from first mover advantage.

Innovation in correspondent and corporate banking is much more likely to require industrywide collaboration. Huge volumes of preparatory work will need to be done before banks in any number will be willing to progress with something new, and often it will not be in banks' immediate interest to do this on an individual basis.

To gain the confidence of the banking community, industry innovations need common standards. They need master contracts, arbitration procedures, lexicons, advisory groups, forums and committees, and a host of other support structures. This is also work that would ideally be performed by a body which is able to draw in all the stakeholders and has an interest in the success of the innovation but is also seen as impartial and trustworthy by all the banks.

The move toward common standards, supported by SWIFT, can be seen in the spread of various formats. The ISO 20022 messaging format is being adopted by numerous market infrastructures around the world, including SEPA in Europe, bringing with it numerous advantages in terms of message flexibility and continent-wide standardization.

Target2-Securities (T2S) is a European initiative to create a single settlement platform for securities, which also relies on the ISO 20022 format. This will allow post-trading integration and so more efficient clearing, while the commoditization of delivery-versus-payment settlement in Europe will allow players – of which around 100 are involved – to compete in more value-adding and customer-facing areas. SWIFT is one of the licensed providers of connectivity to T2S through its value-added network (VAN) solution.

Some new standards have their roots in SWIFT, which has always had building innovative, common standards as part of its remit. One good example is the Bank Payment Obligation (BPO), which is designed to tackle the deficiencies in global supply chain finance. This area of banking currently remains heavily manual, dependent on the letter of credit plus bills of lading and other unreconstructed devices. SWIFT has worked with the International Chamber of Commerce to develop the standards and contractual rules required, and now encourages take-up of the instrument throughout its membership. With widespread adoption, the BPO will yield huge time and cost savings to global supply chains, but it depends on a central body like SWIFT to drive adoption.

SWIFT's MyStandards initiative is another effort at driving compatibility in the financial industry. MyStandards encourages large corporates and counterparties to publish how they send information to their business partners, and how they expect to receive it. This should ease customer onboarding processes and enable higher rates or straight-through processing and automation, as transparency leads to harmonization and reuse.

"Everything we are doing in sanctions and compliance is cooperative. This is not going to become a key differentiator between banks."

Juan Martinez, Managing Director, Software Business and SWIFTLab, SWIFT

SWIFT is also encouraging banks to collaborate in the area of KYC (know your customer). As an area where there is little scope for competitive advantage over rivals, banks are preoccupied with meeting compliance regulations and there is little incentive to innovate. However, SWIFT is enabling banks to share their data in a secure, global utility, meaning all participants will have richer information from which to take KYC decisions.

INNOTRIBE AND COMMUNITY MANAGEMENT

Innotribe is typically understood to be an annual fintech start-up event managed by SWIFT. The reality is more focused than that, however. The theme for Innotribe is uncovering ideas which are ripe for collaboration in the banking industry, and looking for industrial solutions where there are common needs to be answered. Although the final Innotribe winners receive a cash prize from SWIFT, the real benefits to being part of the competition is the mentorship and guidance received and the chance to get the attention of the banking community at the annual Sibos event – the largest financial services event in the calendar with an average of 7,000 attendees. Start-ups also learn about areas like procurement and selling into banks through Innotribe.

SWIFT will make the aim of industrialization more explicit with the planned launch of Innotribe industry challenges. Start-ups will pitch industry solutions for specific domains, in areas such as securities, financial crime compliance, and identity management. For the most promising candidates, SWIFT will work with them to build a proof of concept, leveraging the initial idea with SWIFT's industrial reach to build new collaborative innovations. In this way, SWIFT is explicitly industrializing innovations. One possibility is that SWIFT will start to offer accreditation to start-ups which graduate through its programs: this would extend the practice that SWIFT already does for suppliers of treasury management systems and other software.

SWIFT is used to working through its national member committees and has more recently built similar communities of interest for academics (through the SWIFT Institute), corporates, and bank innovation officers. Innovations can flow in both directions here, as SWIFT learns the best practices from banks and pushes out ideas which originate from Innotribe, the SWIFT Institute, and other banks in turn.

And the act of managing the community is crucial in pushing out collaborative ideas. As well as securing buy-in from the banking industry, SWIFT has been growing its members in areas such as the investment management industry, creating greater reach and network effects.

By working in concert with its community, SWIFT helps to choose those innovations which could be industrialized. It works out what to do in its platform and what to do with partners. It uses Innotribe to find the best industrial ideas and leverages the SWIFT Institute to tap academic minds.

In recent years, SWIFT has started to offer its customers the ability to analyze their own data from financial messaging flows. Aggregating this information can help produce benchmarks for the industry, contributing to banks' understanding of their own efficiency in various stages of payments and settlement.

SWIFT AND RED HAT CAN DE-RISK INNOVATION

SWIFT itself is moving toward offering its products on an open source platform, Linux. SWIFT uses Red Hat Enterprise Linux and JBoss Middleware systems to distribute its applications, including its main messaging interfaces, Alliance and Alliance Lite2. SWIFT on Linux promises a simplified IT infrastructure and lower total cost of ownership thanks to hardware and licensing savings.

"The integration layer does the majority of the work a bank has to do to adapt to new standards without any dramatic change in the back office."

Juan Martinez, Managing Director, Software Business and SWIFTLab, SWIFT

SWIFT's Alliance Messaging Hub (AMH), which provides SWIFT connectivity for organizations with particularly intricate integration requirements such as larger financial institutions, is also based on Red Hat Enterprise Linux.

interfaces in its integration services, and Red Hat is a key partner here. SWIFT's Integration Layer allows a cloud connection between business applications and SWIFT, and the purpose of expanding the functionality is to allow more business applications to be connected at the bank's end but with less bespoke work on the part of the banks. In this way, though, if a partner company is already offering the new service, there is no need for SWIFT to deliver it by itself. And end users can be confident that SWIFT has already checked the solution.

SWIFT has been investing in expanding the functionality of its

The Integration Layer is also ensuring that the formats banks currently use are interoperable with ISO 20022, meaning SWIFT customers will have no trouble staying connected with the market

"Enabling start-ups and enterprises to be both agile and competitive in their application initiatives, while creating value with a proven, stable, and secure open source platform, is a key driver for banking sector organizations to adopt applications based on Red Hat's middleware integration offerings."

Werner Knoblich, Senior Vice President and General Manager, EMEA, Red Hat

infrastructures as new standards are adopted. In this way, banks do not need to undertake dramatic changes to their own back offices.

Red Hat and SWIFT are similar in that both are working toward building communities of open source solutions, and providing the platform to link the solutions together. Red Hat is a community of innovation around open source software. One example of a financial sector organization is the NYSE financial

trading platform, which has been operating on Red Hat platforms since 2010. Innovation does not necessarily need to involve Red Hat IP, but the company can nurture and add stability to innovation in its domains. Innovation in open source can be crowdsourced, with Red Hat providing stability, security, and a realistic prospect of scalability through its own reach. In this way, both companies can offer a de-risked avenue to new technology and innovation.

CONCLUSION

Not every area of the banking industry requires collaboration to innovate or even to merely exist. Working out where collaboration is most suitable will be of benefit to all, however. If thought leadership, practical progress, and coordination in certain areas are left to collaborative bodies which banks can trust to look after the collective interest, individual players' focus can be better trained to those areas where innovation is more likely to come from competition. Banks can pick their battles rather than attempting to innovate in every direction. And they can also be sure that the networks that bind the banks together will not be neglected, meaning that innovation at the front end will be enabled and supported by an evolving and resilient platform. The banks can rest assured that the innovations they are planning will not be out of step with that infrastructure.

As new concepts and new technologies appear, this support role will remain crucial. Distributed ledger and blockchain technology are currently hot topics in the banking industry, as pockets of enthusiasts within many organizations try to work out the implications. What is arguably currently lacking is a trusted body to define standards, provide a resilient network, write up smart contracts, and authorize transactions. It is clear that any such technology would be well advised to work with SWIFT in these areas. The same conclusion may occur to other emerging technologies such as wearables and cognitive computing.

The presence of SWIFT will make it safer for banks to experiment and take on new technologies, and the end result should be that innovations will have a greater grounding in the real world, and will be more easily and cheaply rolled out across the industry, to the benefit of all.

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