DELIVERING FINANCIAL SERVICES TRANSFORMATION

Six insights from Sibos 2016

“It is key to first address the elephant in the room... Lines of business will not be able to innovate and get a competitive edge if they still run their operations on legacy and inflexible infrastructures”

Mike Blalock,
General Manager, Intel FSI

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INTRODUCTION

Since PSD2 was introduced in January 2016 and scheduled to go into effect in January 2018, the pressure on banks and financial institutions to reform has undoubtedly intensified.

With regulations tightening, new digital disruptors emerging, consumer expectations increasing and the hangover from the 2008 financial crisis still lingering for many, financial organizations are facing tough decisions.

They need to decide how to utilize emerging technologies which will enhance the level of services they currently deliver and identify ways they can improve internal efficiencies and streamline their overall operational activities.

At this year's Sibos conference in Geneva it was clear collaboration and the quest for innovation were issues for hot debate as leaders from across the industry convened to discuss the core challenges that lie ahead. Also on the agenda was the speed through which payments can be made and processed, although numerous discussions around what constituted 'real-time' remained unresolved.

To give you the inside track we have collated the six core areas of focus which financial institutions need to consider if they are going to become champions of innovation and deliver great customer experience in the months and years ahead.

In this report we will go into more detail around the following insights:

1. Real-time economy and the case for real-time payments
2. How to create an effective data management strategy and the challenge of unstructured data
3. Adoption of technology and its impact on the customer journey
4. Creating a consistent and valuable customer experience
5. Compliance and Increased Connectivity
6. Transforming the workforce and the impact of technology

If you'd like to find out more about how Intel can help you realize these challenges, get in touch.

Mike Blalock
General Manager, Intel Financial Services Industry

1 REAL-TIME ECONOMY AND THE CASE FOR REAL-TIME PAYMENTS

Technology has created an on-demand culture among consumers – be that download speeds or delivery of frankly anything and everything.

In banking the culture is focused on payments and the development of a so-called real-time economy where transactions are automated and instantaneous. However, banks are generally slow to embrace the capabilities this provides. The notion of 'real-time' has been used in investment banking and trading for a number of years leading to an obsession with latency that is measured in microseconds.

Implementing genuine real-time payments

In retail banking, the expectations are slightly more forgiving but there is still a demand for real-time, digital payments at the point-of-sale. This demand has been met for low value transactions enabling shoppers to pay for their goods with a single swipe of their bank card or smart phone (thanks to initiatives like Apple* Pay).

However, there is still work for the banking industry to do if it is to create a truly real-time environment for all payments, transactions and transfers. To do so means to address the

INSIGHT

Formula for Success equals On-Demand → Cloud → Data Centre Transformation

ACTION

Data management tools are key to speeding up payments and readying against PSD2. To move forward regulators must define the speed of a transaction.

STAT

95% of payments in the French market are domestics

Pascal Augé, *Head of Global Transaction & Payment Services, Société Générale*

INDUSTRY FOCUS: Modernizing Payments

Taking a holistic approach to data center modernization, and making smart investments in technologies that will support future growth and enable banks to turn PSD2 from a compliance challenge into a catalyst for business growth.

Payment Core Services are fundamental to any retail bank, and include processing credit transfers, debits, and check clearing. In many cases, these services have existed for decades, are written in old programming languages, and running in environments that are simply not suited for the demands of real-time operations.

Modern Intel biz

underlying clearing and settlement systems, many of which have no interoperability, particularly across borders or even between different institutions.

The legacy bottleneck

Equally important is the fact that many emerging economies are unencumbered by the messy legacy of an age-old clearing and settlement infrastructure that is present in so many advanced economies. The introduction of PSD2 in January 2016 triggered a need for banks and financial institutions to reform to ensure they stay relevant and provide greater access to information. However, for that to be properly realized, financial institutions need to have the infrastructure behind it to support it, alongside innovations with the payments industry generally.

At present it can still take three to seven days to transfer funds across accounts and settle transactions. That's far from real-time. Resolving this problem will require a reform of these systems which is no easy task. Banks must address their legacy infrastructure first and, most importantly, their use of data analytics if they are to implement genuine real-time payment services. Data-center transformation supported by investment in cloud technology, which powers greater data management capabilities, is therefore key.

Reaction from Sibos

The merest glance at the conference programme for Swift's* annual congress would have showed just how the momentum for immediate payment services is building globally. The very first session – The Perfect Storm in Payments – referred to global initiatives towards immediate payments as a response to a societal call for instant experiences at all levels.

While momentum is building, it has been slow coming. At Sibos, former banker, now advisor at CEB Tower Group* Andy Schmidt, cited that "innovation has been bred out of bankers". But with transaction fees heading towards zero and a rising trio of threats from technology, customer expectations and regulation have spurred banks into action.

For European banks at least, likely success will come from focusing on their domestic markets before trying to create any pan-European platform for real-time payments. Collaboration will be key and with a reported 39 banks in Europe working on instant payment initiatives, the fruits of this collaborative effort may yet bear fruit.[1]

2 HOW TO CREATE AN EFFECTIVE DATA MANAGEMENT STRATEGY AND THE CHALLENGE OF UNSTRUCTURED DATA

All of the businesses thriving in the digital age have one thing in common: they are data-driven.

From Amazon* to Zoopla*, these organizations are democratizing analytics. Banks are in the advantageous position of possessing a great deal of their customers' data yet the industry is still struggling to use this data effectively.

Some of this is down to the traditional structure of banks. They operate in siloes, little fiefdoms where the information is rarely shared across departments. Banks are well aware that this needs to change and have been spurred by regulation that requires them to produce consolidated risk reporting across the enterprise and a clear view of exactly what the bank is doing.

Harnessing big data

But data consistency is also vital if banks are to know where they are going and if they are to also thrive in the digital age. Banks are now focusing on data collection, integrity and quality and building consolidated data warehouses that link back to their data governance policies. Establishing a robust data architecture is therefore critical. Not only does it help

INSIGHT

What banks often lack is organization and clarity to build the right structure and governance to effectively monetize the data assets that they possess

ACTION

Banks need to develop a strategy that ensures they can both enhance their customers' experience and develop data management platforms on the back-end.

STAT

90% of the world's data was created in the last two years and this will only increase as the world becomes more interconnected.[2]

CASE STUDY: The benefits of real-time payments

Understanding the sentiment of people on Twitter can provide valuable insight into what actions need to be taken to understand the relationship between stock prices and social posts.

NTT have found that this insight can have a fundamental impact on the decision making process and the value technology has on unlocking opportunities from Big Data.

Find out more

gain greater clarity on specific data assets, but it also provides access to a richer set of analytics and learnings, which can be used to drive innovation.

An ever greater challenge for banks is to successfully harness the potential of all the unstructured (or so-called big) data available to them. Statistics show that 90% of the world's data was created in the last two years and this will only increase as the world becomes more interconnected. Similarly, the data management solutions market is expected to grow at a compound annual growth rate of 12.8% over the next five years.[2]

Improvements in data infrastructure

What banks often lack is organization and clarity. They need to build the right structure and governance to capitalize on the data that they own to effectively monetize the data assets that they possess. To make this a reality though they need to invest in technology which reflects the cultural challenges around their existing data infrastructure. This will provide them with the capability to meet increasing demands placed on them by the consumer and tightening legislation.

Ultimately, banks need to be smarter and develop a strategy that ensures they can both enhance their customers' experience at the front-end and develop data management platform on the back-end. Only then can banks say that their activity is truly data-driven.

Reaction from Sibos

Among all the Sibos debates on the case for real-time payments, one conclusion was clear: that data lies at the heart of any real-time service and could hold the key for any bank looking to thrive in a digital world. As Andy Schmidt, an advisor at the CEB Tower Group* consultancy, in the opening session stated: data is "the most under-leveraged asset banks have available to them".

But while banks are continually called out for their lack of invention, Sibos showed that they are showing signs of progressive thinking, and exploring ways of using data beyond simple payment services and customer transactions and in new areas such as the fight against terrorism.

When data, technology and analytics are successfully combined, they will play a key role in ensuring compliance as well as spearheading the transformation of payment services and the development and design of more targeted services.

3 ADOPTION OF TECHNOLOGY AND ITS IMPACT ON THE CUSTOMER JOURNEY

The adoption of digital technology should enable banks to enhance their interactions with clients.

This is the most effective way to monetize the rich data that they hold. Customer Relationship Management (CRM) solutions have been trying to provide this enhanced interaction for the best part of 20 years, ensuring that bank sales staff are fully armed with all the pertinent information they need when conversing with clients.

Exploiting the advantages of IoT

But technology has advanced so much in the last 20 years that CRM now seems like an antiquated concept. In its place has risen the Internet of Things (IoT) to connect people and their devices. The rise of wearable technology and the way customers interact with banking apps through different devices is has having a big impact on the decisions banks are starting to consider. Whilst steps have inevitably been made, many industries have become much better than banks at using data.

For example, the agriculture sector has become a leader in the use of GPS technology and IoT and has used this status

INSIGHT

Wearable technology will enable financial institutions to enhance their interactions with customers.

ACTION

Banks must develop a strategy for exploiting the obvious advantages of the IoT – as a way to generate increased revenue through more targeted campaigns.

TAKEAWAY

Banks may even benefit from PSD2 and open banking if they embrace the opportunities this openness can bring.

to drastically improve its risk management and also create more efficiency from crop management to developing a more effective time for harvesting.

More worryingly for banks, there are now waves of so-called challenger banks using smart, data-based technology and the IoT to create customer-centric services – from peer-to-peer lenders to online remittance services and robo-advisers.

The changes stemming from the acceleration of IoT shouldn't be underestimated. Banks must develop a strategy for exploiting the obvious advantages of the IoT – as a way to generate more revenue through more targeted sales campaigns but, most importantly, to enhance their customers' experiences. If banks can harvest the opportunities available to their full potential, they will be able to take advantage of the data these services generate and benefit from a greater level of advanced analysis on behaviors and preferences. Some key considerations will have to be made in the development of this strategy, such as exactly what areas will be targeted and what technology will be adopted and used across branch and digital platforms, but the opportunities that arise from this approach will only increase with time.

Reaction from Sibos

Financial institutions were busy at Sibos showcasing their fintech credentials and boasting of their new, integrated, multi-channel offerings designed to improve their users' experience. Mobile technology was at the centre of these displays and many of the debates on future banking services.

Meanwhile, beyond events in Geneva, Spanish bank BBVA announced the creation of a new innovation hub in Dallas which will be stocked with more than 60 staff working on data analytics, software engineering and user experience and design.[3]

> "If banks can harvest the opportunities available to their full potential, they will be able to take advantage of the data these services generate and benefit from a greater level of advanced analysis on behaviors and preferences."

A central plank of bank's new digital initiatives is the realisation that understanding the customer's 'journey' is crucial to enhancing their experience. For all the excitement generated by emerging technologies like quantum computing, the IoT or augmented reality, it is the empathy with customers that will prevail.

And banks may even benefit from the new European directive PSD2, and its promotion of open banking if they embrace the opportunities this openness can bring rather than focusing on the threat from new, non-bank-based challengers.

4 CREATING A CONSISTENT AND VALUABLE CUSTOMER EXPERIENCE

Clearly there is no such thing as 9–5 banking anymore. Instead it is 24/7.

As with so many other services and industries, the advancement in technology has given birth to a demand for services that are always on and accessible from any location and on any device.

The concept is simple – anytime, anywhere, anyhow – but it requires a lot of work from banks to make a success of it. Fortunately for banks this is nothing new to them. The front office have always taken priority over the back room staff of accountants and administrators and it is no different in the digital age. However, investment in back office capabilities can generate intelligence which can be used to provide better customer facing experiences, as well as better internal efficiencies.

While designing a front end that is eye-catching and easy to navigate is not straight-forward, the real challenge for banks is the work that needs to be done on the back-end. Banks need to understand the manner of their customers' interactions – be that via voice, mobile, smartphone, tablet, laptop or

INSIGHT

Interconnectivity will allow banks to add value to every touchpoint in the customer journey and improve the loyalty of their customers.

ACTION

The real challenge for banks is the work to improve legacy infrastructure to understand and enhance their customers' interactions.

STAT

By 2020 customers will use their mobile to manage their current account 2.3 billion times a year – more than internet, branch and telephone banking put together.[4]

CASE STUDY: True Corporation: Speaking to More Than a Million Customers Individually

True Corporation needed to store up to 5 TBs of data a day from its DPI solution and develop a 360-degree view of individual customer behaviors so that it could improve its ability to target customers with more relevant campaigns.*

Since adopting new technology via Cloudera, True Corporation* have reduced the cost of their big data provision by 10%, sped up query times by 40% and now have a complete helicopter view of their customers. This means they can interact with them with far greater precision than ever before with highly relevant content.*

Find out more

desktop. And typically most customers will use all of these channels depending on time and location.

Banks need to provide a truly seamless and integrated experience for their customers and to create a consistent experience across all devices. By doing this correctly, banks will be able to retain and attract new customers, providing them with better value and a far more enriched experience.

Amid the disruption from digital upstarts, banks are increasingly nervous about customer loyalty. However, improving customer loyalty is essential to reducing the possibility of people switching to a different banking provider. Better communications, and creating a sense of urgency around the importance of a connected experience – so that it is both consistent and valuable to the audience – acts as a perfect antidote to switching. Younger generations of customers have higher expectations and expect the same convenience from their banking as their other digital services. So it's even more important banks have the capabilities to excite these customers at every opportunity. And there is an assumption that the agility of digital banking also makes it easier to change banks, even if the evidence shows that most customers are still too apathetic to switch.

But by focusing on interconnectivity, banks will be able to add value to every touchpoint in the customer journey and establish long-term loyalty.

Reaction from Sibos

The focus on innovation intensified during the three days of Sibos to such a point that the debates eventually turned to an age-old theme of science fiction novels – the battle between robots and humans.

A panel discussion on the interconnected world, driven not just by the IoT but also by interconnected payments – raised the question of whether such a world would need to be moderated by humans at every point.

There is an ever-growing use of algorithms and automation to create so-called 'robo' services, most notably in the world of financial advice where the likes of Betterment* are increasing their use of robotics and algorithms to the benefit of their customers.

But as important and efficient as modernization is, it is important that future developments do not compromise the role of the human touch because banks are still ultimately built on trust, as well as technology.

5 COMPLIANCE AND INCREASING CONNECTIVITY

For non-banks that have been challenging the incumbent institutions over the last decade or more, compliance has been their greatest obstacle.

Many of the neo-banks challenging the high-street lenders and deposit banks are expected to struggle once they are faced with the same compliance burden facing their rivals.

Trust is inevitably therefore a major concern for customers. Financial institutions want to make sure they have the trust of their customers and are providing them with the assurance that their personal data is safe and secure is fundamental to that.

In the last 15 years, banks have been subject to ever more onerous rules around their customers – from Know Your Customer[5] to sanctions and AML[6]. Added to this is a greater level of scrutiny of the use of data across all industries with various data protection laws.

So how do banks manage to solve an apparent conundrum of striving for more innovation but within the parameters of global regulations?

For incumbent banks, regulation should be seen as a vital ally. Compliance should be proudly displayed to customers as an

INSIGHT

Technology developments in recent years actually make it easier for banks to meet their compliance obligations by producing a clear audit trail.

ACTION

For incumbent banks, regulation should be seen as a vital ally. Compliance should be proudly displayed to customers as an example of trust.

Question

If you had the opportunity to set up your financial crime compliance from scratch how would it work differently?

INDUSTRY FOCUS: Reduce Money Laundering Risks with Rapid, Predictive Insights

Financial institutions face new challenges in preventing fraud and theft directed at them and their clients.

It is no longer enough to use standard technologies and controls and accept any undetected money laundering as part of doing business.

Regulators require firms to be more proactive, innovative and thorough by using big data analytics, machine learning and visualization to uncover new and emerging risks.

To combat these challenges, these organizations need an up-to-date complete and single version of data for all analysis and reporting. If they have a single source of data, they can run analyses far more quickly and confidently.

Find out more

example of trust. But adhering to things in this way is in many respects a pre-requisite. Managing and mitigating against potential risks, protecting brand identity and communicating adherence to security and privacy are in many respects far more important. Having the technical capabilities to support these functions will naturally engender long-term trust. As exciting as these new digital-only competitors may be, customers still value trust when it comes to banks.

Furthermore, many of the technology developments of recent years actually make it easier for banks to meet their compliance obligations. For example, electronic banking produces a clear audit trail, and should the use of distributed ledger become prevalent, transaction chains will become even more robust, secure, reliable and non-repudiated. So rather than acting as a brake on innovation, the adherence to compliance could actually accelerate business opportunities for banks.

Reaction from Sibos

For all the importance placed on technology, trust should still be a banks' most treasured possession. The banking sector may suffer from a poor image when it comes to innovation but its reputation for trust and compliance is no better among consumers.

Fortunately help is at hand through no less a force than technology. Artificial intelligence and Big Data analytics can all help to create a more transparent and fraud-reduced market, provided banks are able to track all of the data they receive and apply it correctly.

> "In the last 15 years, banks have been subject to ever more onerous rules around their customers."

At Sibos, Swift* launched is Payments Data Quality (PDQ) offering, a data analytics service designed to help banks comply with new international rules on payments, such as the new requirement to provide originator and beneficiary information in any financial messages.

The PDQ service will also help banks meet their continuing requirements as regards anti money laundering and Know Your Customer rules and also the Financial Action Task Force's latest recommendations on wire transfers.

6 TRANSFORMING THE WORKFORCE AND THE IMPACT OF TECHNOLOGY

If we have learnt anything about banking in the 21st century it is that technology will continue to develop and whatever may be cutting edge today will soon be supplanted by something new.

The rate of change has been extraordinary. First we had automation to remove costly and error-prone manual processes, then we had algorithms to enable real-time transactions. However, investment is still needed to ensure working environments remain in line with current innovations.

In banking, transformation of workplace technology can have a significant impact on the level of service customers receive. These innovations are all about driving better efficiencies, incentivizing staff and ensuring that the ability to manage an increasing set of tasks and external pressures are adequately met. Similarly, the best digital infrastructure in the world is useless without an innovative workforce to accompany it.

Technology as an enabler

Despite the benefits it brings, there is a misnomer about the relationship between people and technology. The idea that client service relationships become reduced to 'computer says no' should not be true. Whilst it's not necessarily applicable for the workplace environment at the moment,

INSIGHT

In banking, the transformation of workplace technology can have a significant impact on the level of service customers receive

ACTION

Innovations are all about driving better efficiencies, incentivizing staff and ensuring that the ability to managing tasks and external pressures are met.

STAT

92% of respondents think the industry needs to gain a better understanding of how AI applies to payments - as opposed to the hype around AI in consumer tech[7]. – **Pelican**

CASE STUDY: AI at Sibos 2016

According to Banking Tech AI was a fiercely debated issue at Sibos this year, but was recognized as being a core area of focus for the future. Whilst the technology was recognized as not being new, the opportunities it can provide to financial organizations are significant.*

Christophe Chazot, group head of innovation, HSBC, stated that AI will be used in "every single segment of financial services. He believes that the software is "getting more intelligent in a human sense, mimicking human reasoning," and that it has the potential to advance all aspects of banking from back office staff and general operations to traders and corporate finance teams."

Find out more

artificial intelligence and machine learning enables banks to add value and communicate with their customers in far more sophisticated way, so investment in these areas will naturally rise with time.

There are obviously fears that technological developments are diminishing the role of humans at a customer level, but this need not be the case. Firstly, one has to remember the age-old maxim that technology is only an enabler and not an end in itself. For example, algorithmic trading is useless if it is not harnessed to a trading idea. Without the idea, the algorithm will simply enable you to lose your money in microseconds rather than days or weeks.

Reaction from Sibos

As AI matures, banks are looking at how best to apply the technology. Sibos revealed various initiatives to use AI to tackle fraud and foil cyber-attacks but the majority of focus remains on payments.

A survey of payments professionals, released at Sibos by payments vendor Pelican, revealed that 92%[7] believe that banks need to learn more about applying AI to payments rather than the hype around consumer tech and AI.

Furthermore, 72% see strong potential for AI to remove inefficiencies from the payments process while 67% expect the adoption of AI in this context will increase significantly in the next five years.[7]

> "The best digital infrastructure in the world is useless without an innovative workforce to accompany it."

There are a number of emerging examples of workable technology that warrant more attention from banks – the likes of Amazon Echo*, Wit.doc* and Kik*. And combining AI technology with machine learning, another hot topic of debate at Sibos, should provide further opportunities for banks to remove inefficiency.

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LET'S START THE JOURNEY TOGETHER