2019
Bankers as Buyers

WILLIAM MILLS AGENCY

Table of Contents

VII. Contributed Articles

Letter from the Publisher

February 2019

Dear Readers,

What a fascinating year we had and how might it impact where we spend money on financial technology in 2019. Here are shifts and issues we've noticed and include in this year's report:

1. User experience discussions for employee-facing technology – How can bankers have more visually appealing and easier to use technology to help them be more productive and even, God forbid, make it more pleasant to do their job?

2. Talent development and rise in outsourcing services – last year we touched on "talent wars" and competing with FANG: Facebook, Amazon, Netflix and Google. This year, we are seeing an emphasis on keeping and developing talent and an increase in supplementing internal resources with consulting organizations for tech planning and implementation. Additionally, more organizations are offering to assume the risk responsibility of services such as Chief Security Officer, which are particularly hard for community financial institutions (CFIs) to attract and retain.

3. Hyper-focus on early-stage fintech and maturation of fintech accelerators and incubators – with the investment community looking for innovation that will shape and influence how we conduct our financial business, there have been a lot of resources put to work on finding, coaching and launching technology. How do banks and traditional bank technology providers engage and benefit from this development? Check out how NBKC in Kansas City, Missouri became the first CFI to start an accelerator and why.

4. Deepening relationships with SMB commercial customers – banks are getting serious about providing services and technology to help this profitable customer segment become more efficient and reliant on them. Predictive technology can help the banks be proactive on offering new loans or increased lines, in some cases, before the customer knows it. Additionally, more banks are offering accounting and payment services to commercial customers to improve how they work as partners.

We'll also be looking at AI, APIs, digital engagement, neobank/direct banks' influence on traditional banks and Sheltered Harbor, LLC, which is the not-for-profit, industry-led standard for protecting and recovering customer account data if a catastrophic event causes failure of critical systems.

Whether your organization is an FI, vendor, accelerator/incubator, consultant, investor or someone considering their next move in this exciting and critically important industry, we hope the report provides you with some ideas or concepts to consider.

Best regards,

Scott Mills, APR

Bankers As Buyers relies on interviewing a wide variety of people we trust, published research and contributed articles. This report is greatly enhanced by the contributions of:

Abe.ai – Keith Armstrong
Aite Group
American Banker
ARGO – Todd Robertson
Autobooks – Derik Sutton
BAI – Byron Marshall and Karl Dahlgren
BankLabs – Matt Johnner
BankTel – Boyce Adams, Jr.
Baker Hill – Mike Horrocks
Banking Exchange
Banktel – Boyce Adams, Jr.
Celent – Bob Meara
CrediVia – Anuj Mittal
Continuity – Pam Perdue
Cornerstone Advisors – Ron Shevlin, Sam Kilmer
CUTX – Eric Pointer
D3 – Eric Brandt
DBS – Lisa Nicholas
DirectorCorps (Bank Director) – Al Dominick
FintekNews – Cindy Taylor
First Federal Savings Bank of Angola – Amy Ross
Futurion – James Van Dyke
Genesys Technology Group – David Saylor
ICBA – Kevin Tweddle
IMM – Mike Ball
Jack Henry & Associates – Lee Wetherington, Stacey Zengel
Merchants and Planters Bank – Patricia Davis
Mortgage Bankers Association (MBA)
MDT – Matt Baaki
NBKC
Paragon Application Systems – Steve Gilde
Payrailz – Fran Duggan
Samaha & Associates – Tom Black
Sawyers & Jacobs, LLC – Jimmy Sawyers
Sheltered Harbor, LLC – Trey Maust
Strategic Resource Management (SRM) – Larry Pruss
Tommy Marshall
Trabian – Trey Reeme
Velocity – Chris Rentner
Validis – Joel Curry
U.S. Dataworks – David Peterson

I. Introduction

Economic Considerations and Emphasis on Improving the Customer Experience

Banks are coming off a year when they saw 1) interest rates start to rise, 2) the general economy was strong, marking a decade of growth since the financial crisis and 3) low unemployment.

Yet there were rumblings near the end of 2018 and at the beginning of the current year that the national and global economy had seen crested in terms of growth rate. Recession is starting to come on to economists' radar as well, though they do not expect a recession until sometime in 2020, with 2019 seeing an anemic growth rate.

One of the major challenges in 2019 for banks with mortgage operations will be the possibility of rising interest rates, which triggered a drop in applications in 2018. The Mortgage Bankers Association (MBA) has predicted moderate growth in home purchase mortgage originations, with refinance volume continuing to decline. It anticipates the 30-year fixed-rate mortgage will level out at 5.1 percent.

One concern for 2019 is the shrinking spread between short-term and long-term rates, said Tom Black, senior consultant, business development and strategic partnerships, for Samaha & Associates. But that concern is somewhat offset by continued low unemployment numbers.

Efficiency and an improved customer experience are themes that many financial services experts cited as priorities for any technology investments in 2019. To make granting as efficient as possible, financial institutions are expected to focus on technologies that will enable them to quickly onboard new applications and to enable front office and back office personnel to minimize friction and enhance the customer experience throughout the process.

Similarly, on the deposit side, banks are expected to invest in onboarding technologies as well as digital strategies to maximize efficiencies across channels, recognizing that customers should not be compartmentalized as digital-only or branch-only – most customers use multiple channels. So banks will continue to automate those processes they can while seeking to provide employees with the tools to quickly and accurately meet customer financial services needs, because any friction in experience will prompt the customer to go elsewhere.

II. Technologies To Improve User Experience

A. EMPLOYEE-FACING TECHNOLOGIES

Just as years ago financial institution employees and customers wanted their bank interfaces to work similar to retail technologies, now employees and customers expect an "Uber-like" experience from their financial institutions, said Trey Reeme, chief operating officer and co-founder of Trabian.

Uber invested as much time and resources for the employee end of the app as it did on the rider end of the app, Reeme explained.

The availability of good employee-facing technologies also helps financial institutions with the war for talent because younger workers want the latest in technology.

However, some veterans working in the back office can work faster with legacy green screens due to their long experience with various hot keys, and other shortcuts, said David Saylor, president of Genesys Technology Group. "You would think that they would welcome point and click. But they are more efficient with the legacy green screen. The real challenge is to have [employees] and the board embrace the technology." Financial institutions making changes that includes employee facing technology will need to consider the effect on long-term employees balanced with the need to plan for the future.

Saylor recommended that financial institutions move slowly in adopting technologies to ensure they have sustainable solutions. So banks should prioritize their investments by where employee-facing technology will have the greatest impact.

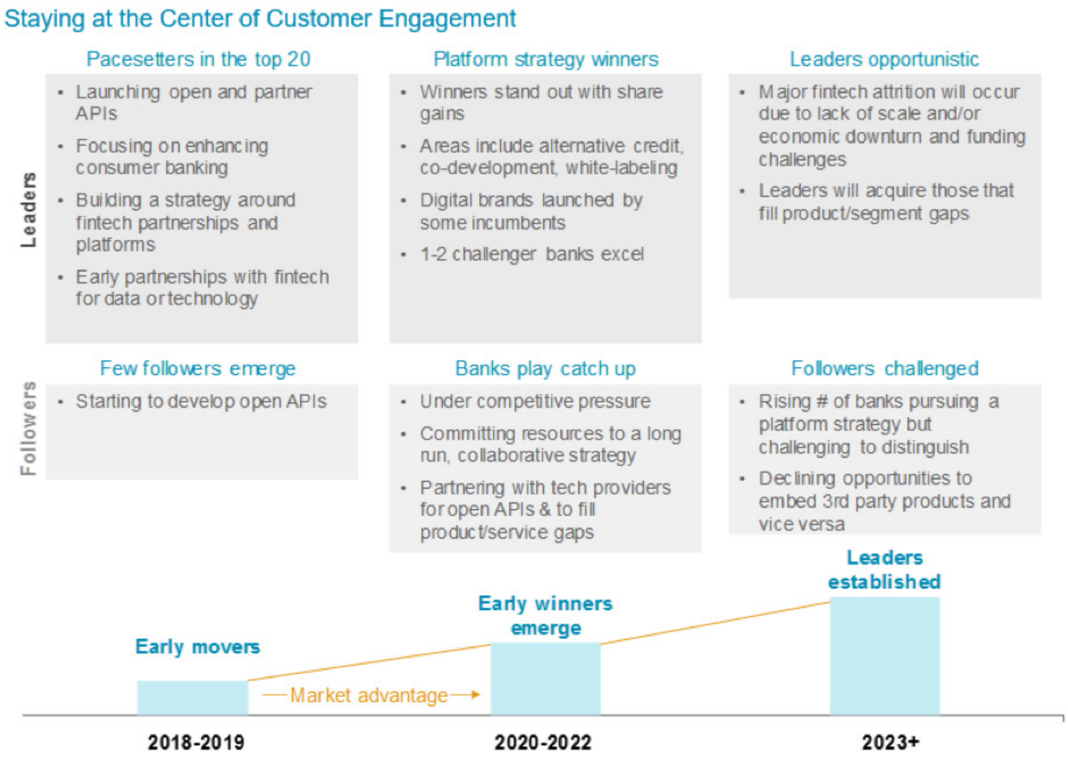
"It starts with a conversation on the forward-facing side, then internally on the operations side to reach out to the core vendor to help you solve integration," Saylor said. Beyond the employee-facing technology having the point-and-click feel of other technology they are familiar with in other settings, the technology also needs to have intelligent workflow capabilities so that the completion of one step triggers another without need for human intervention, Saylor added.

"Banks are trying to do different things to influence workflow efficiency," said Todd Robertson, senior vice president of ARGO. Some of that evolution is on the employee-facing side, while some banks are completing their implementation of some "older" technologies, such as paperless processing, throughout the enterprise. "Some things are just starting to be executed right."

Robertson added that banks are adding technologies that help bankers follow all customer interactions, so that bankers can recognize when product or service applications are abandoned, enabling quick follow-ups. By following customer interactions, banks can also uncover downstream opportunities for selling additional products and services.

Workflow efficiency is another area that some banks are targeting, Robertson added: "Banks are looking at the whole area of employee tasks, so they can ensure that employees are performing the right tasks at the right time."

"The 'consumerization' of the back office has occurred more slowly than on the customer-facing side of things," said Bob Meara, banking group senior analyst for Celent. Banks are moving more quickly in updating the back-office technology now as they bring in unified solutions that will work across channels to replace channel-specific point solutions. The newer solutions are also device agnostic so that customers can change from one channel to another without loss of their communications history.

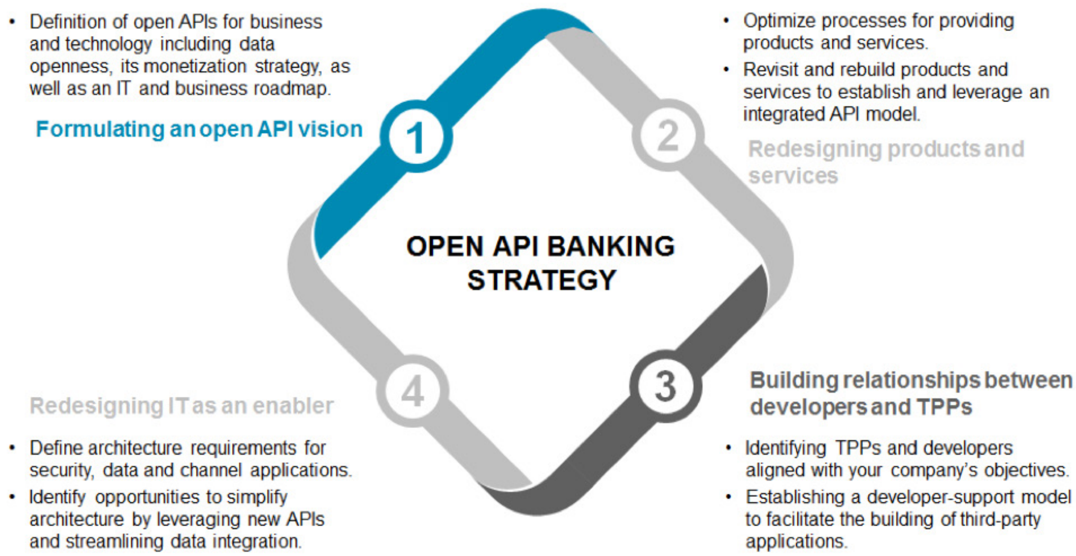


Source: Celent interviews and analysis

Similarly, in the branch, banks are moving to employee-facing technologies that provide complete views of all customer data and customer-financial institution interactions, Meara said. "Almost everyone is using multiple channels today. Banks want to make sure that they are giving the right information to the front line staff." That information includes authorization for customers so they do not need to go through the process again.

One of the more popular, newer technologies for employees and for customers is screen and document sharing capabilities so that customer service agents can quickly solve any customer issues. Screen sharing is the most straightforward way to accomplish this, Meara said.

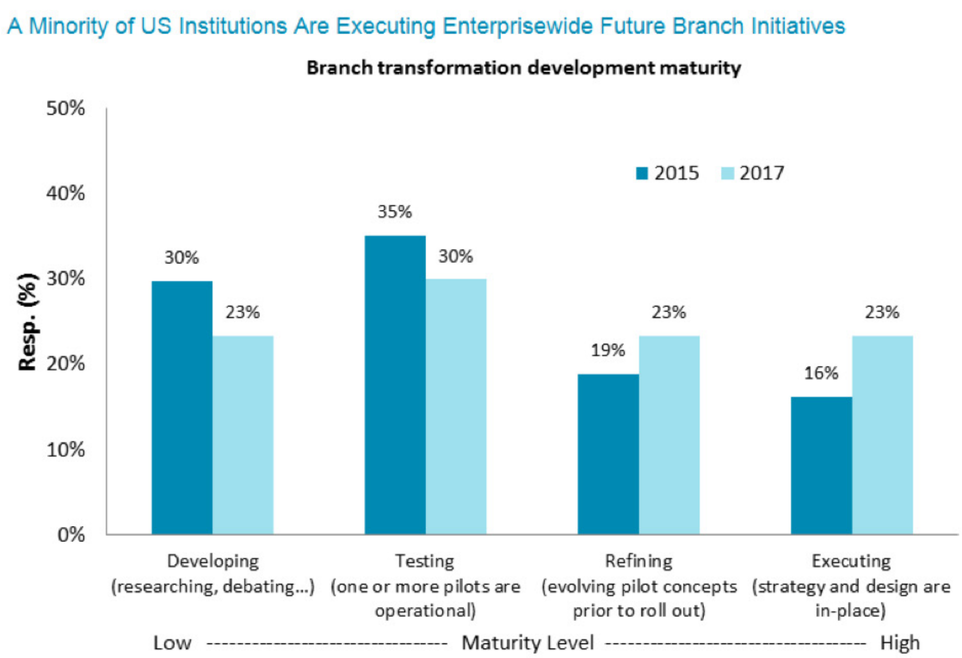
The vendor approaches for bringing newer employee-facing technology to the front and back office use APIs as well as other integration methods, according to Meara.



Source: Celent

However, the move to tablets at the branches, which has been a hot topic of discussion for a fewer years now, is still moving slowly, Meara said. "Many have adopted Windows environments, then look to use iPads in the branch. But now we are starting to see data stacks that would be very well suited for tablets in the branch."

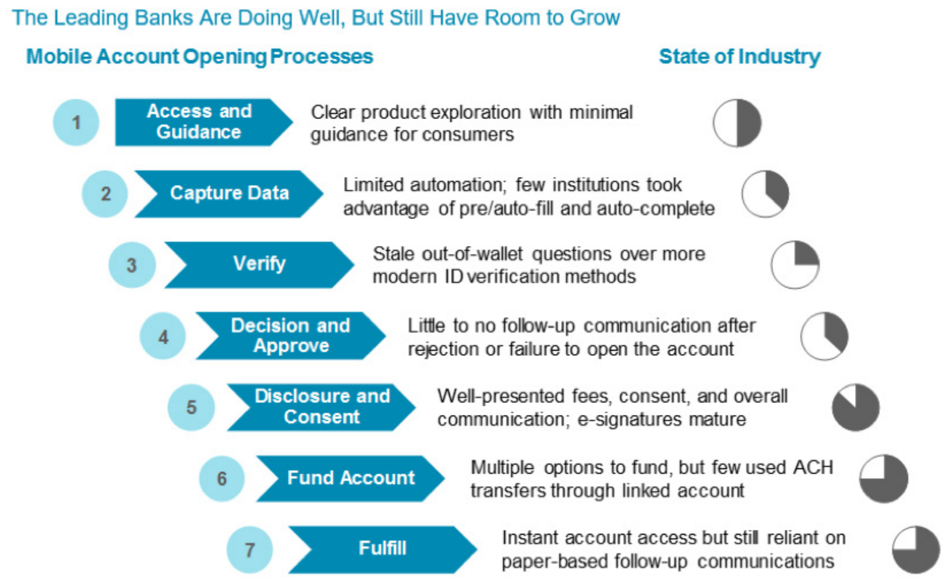
Still, any meaningful branch transformation is probably still 18 months to a couple of years away for most banks are they are just now moving into the designing and piloting phase, according to Meara. "For most, it's not a higher priority than getting their digital act together."



Source: Celent Branch Transformation Research Panel

B. USER-FACING TECHNOLOGIES

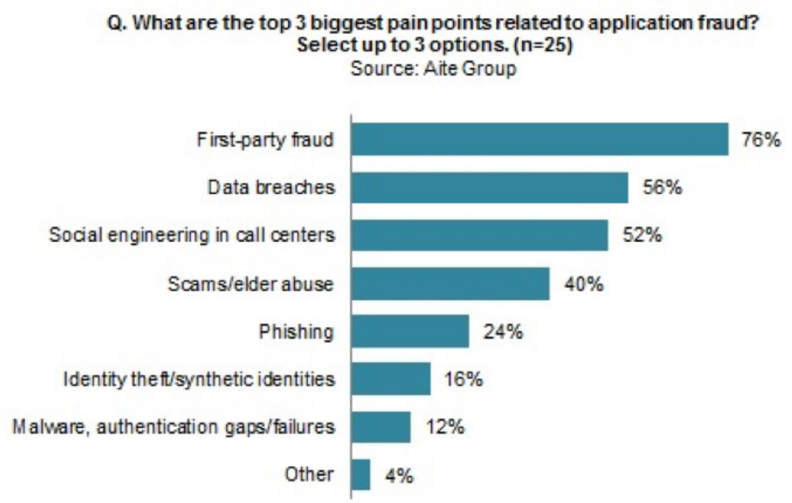
Account onboarding is an area that many experts said is a technology priority for many banks. Customers want quick authorization in order to conduct transactions, and will look for financial services providers, including non-banks, that make initial account opening and adding new services, such as a deposit customer adding a credit card, as simple as possible. This is an area where fintech companies have caused major disruption, so some banks are looking to add these capabilities, often in partnership or a customer-vendor relationship with a fintech firm.



Source: Celent

By removing the friction of account opening and for other tasks, banks can keep employees focused on where human interaction is necessary. Meara pointed out that 90 percent of calls to a bank contact center are for password resets, so an increasing number of financial institutions are automating that process.

However, in an [American Banker article] by Nathan DiCamillo published in December, Sudheer Chava, director of Georgia Tech's quantitative and computational finance program, cautioned that removing too much friction on the credit side can lead to defaults because it lessens the time the consumer or business has to consider if they can indeed afford a purchase.



Source: Aite Group

C. DIGITAL ENGAGEMENT

"What we will finally see in 2019 is community financial institutions figuring out ways to provide personal service through digital channels," says Lee Wetherington, Jack Henry & Associates' director of strategic insight.

Wetherington's prediction was seconded by Strategic Resource Management (SRM), which said in a Banking Exchange article that the number of banks outsourcing digital, IT, compliance and core competencies will continue to rise as the demands for continuous innovation grow.

Jack Henry & Associates will help community banks in that endeavor by offering fully authenticated, encrypted live chat functions from within digital banking, a feature that debuted in September of 2018. Such functionality enables community banks to offer scalable personal service – building on their prime differentiator from the largest financial institutions.

"Previously, they have not been able to scale live personal service," Wetherington said. "Live chat was not authenticated."

The Jack Henry & Associates offering enables customers to interact with a select few bankers, meaning the building and deepening of personal rapport, unlike working with a large group of contact center employees in the larger bank setting, making it rare for a customer to talk to the same banker more than once, so there is no establishment or continued deepening of a relationship.

Wetherington said that he expects some community banks to use branch personnel to staff the chats, which will help to solve the issue of overstaffed branches, while others will rely on personnel dedicated to digital channels. "This isn't something the larger banks can do or want to do."

"We want to make banking personal for the first time in the digital channel," Wetherington added.

However, many banks don't look at long-term digital transformation, but instead at "hot button issues," so they look for a solution that "scratches the itch," but may not be a long-term solution, Meara cautioned. He recommended seeking platforms that enable banks to move forward with their software stacks. "Think and plan for the long term."

Long-term planning is essential for financial institutions as they look at fintech partnerships, internal talent development and technology priorities over the next 2-3 years, agreed Al Dominick, chief executive officer of DirectorCorps, a media company that counts Bank Director and FinXTech among its brands.

III. Talent Development

A. INTERNAL DEVELOPMENT

Financial institutions see the benefits of digital transformation, but also see challenges as well – digital transformation means a shift in culture for both management and employees. Employees will need more technical skills and will not be used for tasks that are easily automated. While some millennial and Generation Z employees will seek banks and other employers using the latest technologies, some veterans will prefer the technologies that they have used for many years, even though they are outdated for today's industry.

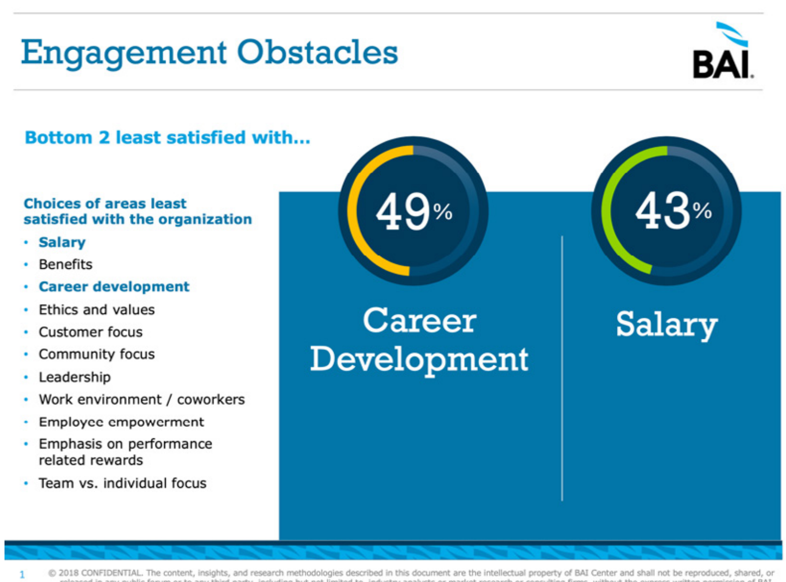
"When you go through a digital transformation every person in the organization feels the shift and change differently. Employees may feel overwhelmed because you are changing how they work each day, and in the beginning, they don't see all of the efficiency gains which can cause resistance and frustration," said Eric Pointer, president and CEO of Dallas-based Credit Union of Texas (CUTX). "Executives often get impatient because they don't see production increase immediately or cost reductions from increased efficiencies, yet they know we need to change to be relevant tomorrow. I've been especially surprised by the number of people openly stating that the change has been too much for them. I guess there really is a comfort zone."

Pointer added that finding the right people to transform a financial institution isn't easy because there is a shortage of people with the technical skills needed for a financial institution in the digital age.

To attract and keep talent, financial institutions need to do a better job offering employees career development paths, said Byron Marshall, director of research for BAI.

Money and benefits are "table stakes," today, so financial institutions need to look beyond those to providing employees with the tools and training that they need, Marshall said, adding that banks have to rethink how training and career development can be a hiring and retention differentiator.

In a survey of financial institution employees, BAI found they were least satisfied with career development, citing it as one of the top reasons they would leave the bank.

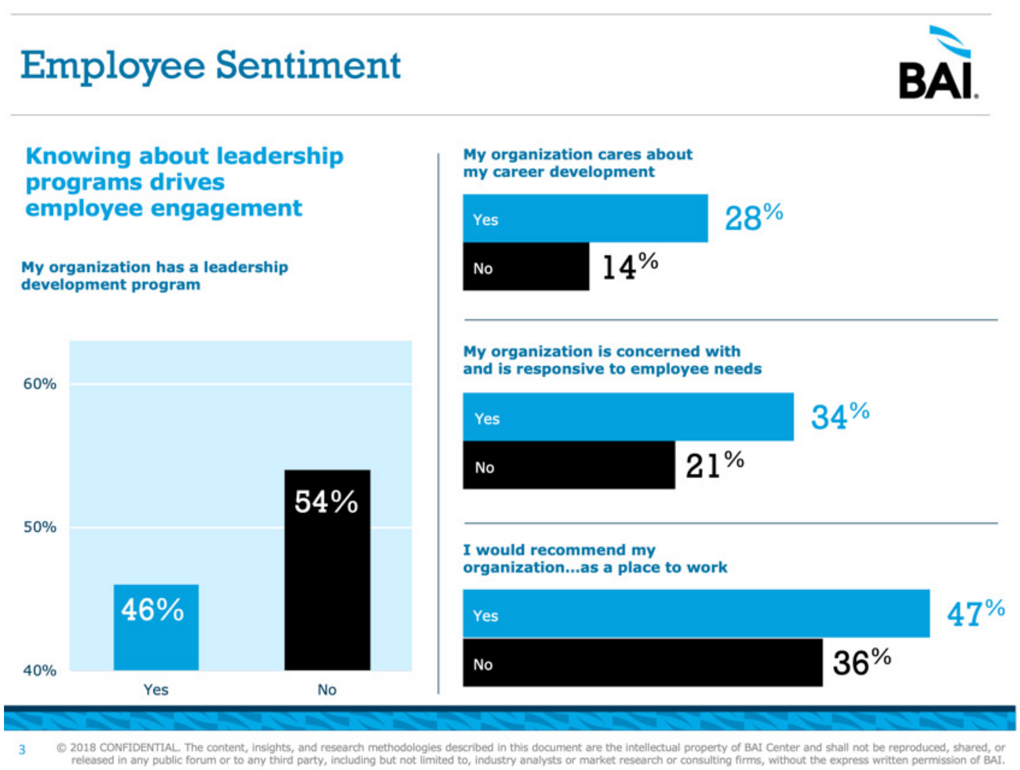


Source: BAI

Beyond focused career development, banks could also help spur interest and loyalty in the workplace by using job rotation programs, Marshall said. These programs help identify long-term career fits for the institution and the employee. Though popular many years ago, the job rotation practice had fallen by the wayside until a recent pickup. Marshall also said that BAI and banks themselves are starting to offer more online training to help employees to continue to advance their skills.

“You have to make the investment in training whether or not the person is going to leave,” Marshall said. “Having development programs will enable you to keep talented people who will be the future leaders of the organization. Banks have to rethink their training and how training can be a competitive differentiator.”

Marshall expects banks to add more online and intranet-based training tools in 2019. Good development and training programs will also prompt employees to refer others to the financial institution. “Employee referrals is one of the best sources of finding good, new talent,” Marshall said.



Source: BAI

B. OUTSOURCING

Yet banks often don't have the human resource pool to pull from, particularly in rural areas, or the financial resources to pay for talent in all areas, which is where outsourcing and partnering from fintech come into play.

"Outsourcing has changed over the past several years," said Stacey Zengel, corporate vice president and president of Jack Henry Banking. "Sixty percent of our customers are outsourcing to Jack Henry." Only a few years ago, that figure was only about half of what it is today, and Zengel expects the percentage to continue to grow. Check imaging and customer-facing functions are the most popular to outsource, while the functions with sensitive data and imaging of file cabinets are the two areas that tend to lag.

Most banks have some blend between outsourced and in-house operations, Zengel added.

Zengel said that many banks, particularly those outside of major metropolitan areas, have turned to outsourcing for chief information security officer, project management and consulting functions because people with these skills are increasingly scarce.

Samaha's Black said that credit unions had trailed behind banks in seeking outsourcing solutions, but that has changed. "The vendors are offering outsourced and in-house solutions. In five out of five cases, the credit unions are choosing to outsource."

As with the banks, the credit unions are outsourcing because it relieves them of the responsibility of maintaining servers, in-house tech staff and other demands of operating and maintaining in-house systems, Black added. Some are even considering moving their cores to the cloud.

Source: Samaha & Associates

A couple of bankers quoted in a Jack Henry press release show the diversity of reasons that banks are increasingly outsourcing:

“We first considered outsourcing to help manage our growth,” said Patricia Davis, executive vice president of Merchants and Planters Bank. “We opened two branches in the last year and have some key employees planning for retirement, so outsourcing allows us to better control operational costs as natural attrition occurs.”

Indiana-based First Federal Saving Bank of Angola, a $144 million-asset financial institutions, turned to outsourcing after a series of transitions in IT personnel, said Amy Ross, senior vice president. “We knew that we eventually wanted to outsource rather than keep up with ongoing hardware maintenance, but we needed to move fast when we lost our second IT employee in three years. I would encourage anyone considering outsourcing to make the move, as it has allowed our employees to refocus on clients and provide them with the best service.”

While larger banks had resisted outsourcing because they could find the needed talent and cost-justify keeping many of these functions in-house, a growing number are now turning to outsourcing so that executives and managers can focus on the business of running the bank rather than on all of these ancillary, but necessary, functions, Zengel said.

IV. Benefitting from Fintech

A. PARTNERSHIPS

Bankers for the most part are embracing fintech, from outright purchases of fintech firms, such as Capital One's purchase of Wikibuy in November of 2018, to working with early-stage fintech firms and developing fintech incubators and accelerators.

Working directly or indirectly with fintech firms can provide tremendous benefits to bank customers, said Boyce Adams, Jr., president and CEO of BankTEL. "Partnering enables community banks to continue to innovate and deliver the products and services customers want and expect. Banks should be partnering with nimble fintech companies that can deliver the products and services to them and their clients."

However, Dominick cautioned, "Any bank that sees a fintech partnership as a sliver bullet will be disappointed."

Every bank needs to develop a strategic plan, then determine how a fintech's offering fits in before entering into any partnership or other relationship, Dominick said, adding that any relationship could take some time before any fintech relationship produces a positive return.

Though some large financial institutions like Capital One, U.S. Bank and others have purchased fintech firms, that's not the road Adams expects community banks to follow, instead they should vet viable partners that have financial stability and won't put bank compliance standards at risk.

B. ACCELERATORS

One notable exception is NBKC, which launched an accelerator in 2018 as an avenue to help fintech companies grow, while also expecting the technology to enhance its customer experience and business.

Fountain City Fintech is housed within the bank and contains offices for companies moving to Kansas City from as far as Australia and around the U.S. to propel growth. Beginning last October, the employees of the accelerator firms started working alongside bank employees, addressing ways to reach the underbanked, improve financial literacy, access to credit and similar technologies to expand financial services offerings.

Fintech startups developed in cooperation with venture capital firms are great partnerships for community banks to consider, said Tommy Marshall, an Atlanta-based fintech consultant.

Marshall and Dominick recommended that banks focus their partnerships on fintech applications that offer easy integration with core banking platforms.

"The large core providers understand that they need to do a better job of this," Marshall said.

Fintech firms can also provide financial institutions with the entre into artificial intelligence, particularly to facilitate loan underwriting. Training in the AI models is necessary, Marshall said, adding that community banks must be ready to explain any AI-based underwriting models to regulators.

More common than the NBKC accelerator venture are arrangements with banks, fintechs and other partners, such as the Independent Community Bankers of America(ICBA)'s ThinkTech Accelerator, a community bank-focused fintech accelerator program. This first-of-its-kind fintech accelerator provides an outlet for community banks to directly engage and partner with early-stage fintech companies focusing exclusively on community bank product development.

"ICBA has promoted community bank and fintech partnerships for quite some time," said Kevin Tweddle, chief operating officer for the ICBA Services Network. This is the next step in our industry's innovation journey, and by combining community banking and fintech, we'll be cultivating a high-tech meets high-touch banking experience for consumers. And this, ultimately, will be the community banking difference in the years to come. We're looking at the future of community banking for the next five-to-seven years. We're telling [ICBA members] to come work with us."

ICBA partnered with The Venture Center in Little Rock, Ark., to launch the accelerator, which has 10 initial participants.

Accelerators, incubators and other fintech partnerships work well for community financial institutions because they aren't particularly good at innovating on their own, and fintech companies don't understand banking or the regulatory environment particularly well, Tweddle said. "It's a natural partnership. Neither can go it alone."

The ICBA Services Network consulted with regulators, core processors, ICBA members and other experts as well as conducting due diligence on the initial accelerator participants, Tweddle said.

A selection committee made up of ICBA staff and member bank executives are actively participating in the program, serving as mentors to early-stage companies vying for top spots in the selection process.

The first step is a "proof of concept" phase, in which ICBA and community bankers provide feedback as part of the mentoring process for companies looking to partner with community banks. ICBA selection committee members will also serve a key role in selecting up to 10 candidates for the ICBA ThinkTech Accelerator program. ICBA will invest in each accelerator participant. Finalists will present their solutions to community banks at the ThinkTech showcase at the 2019 ICBA LIVE® convention, March 18-22 in Nashville.

In a survey of mid-sized financial institutions, Cornerstone Advisors found that nearly half of them said that fintech partnerships will be important to their business strategies in 2019. According to Ron Shevlin, director of research at Cornerstone, "Many are looking beyond their traditional vendors and core providers to start-ups to help with innovations around new account opening, payments, and lending."

Banks are looking to fintech partners to aid with digital account opening, payments, lending and credit so that they can expand the financial institution's capabilities without the expense and resource commitment of attempting to develop these capabilities on their own, according to Shevlin.

Some of the larger mid-size financial institutions, those in the $30-$40 billion asset range, have their own investment arms to fund fintech accelerators and incubators. Such endeavors require too much financial and other resources to be viable options for smaller banks, Shevlin said.

"However, some don't know what they are looking for and haven't thought through the partnerships and the execution necessary in order to get what they need," Shevlin said. "They don't look at key opportunities and vendors who can help with those. One caveat is not to put technology before strategy. Some think that bank digital transition will occur through partnering with a fintech company."

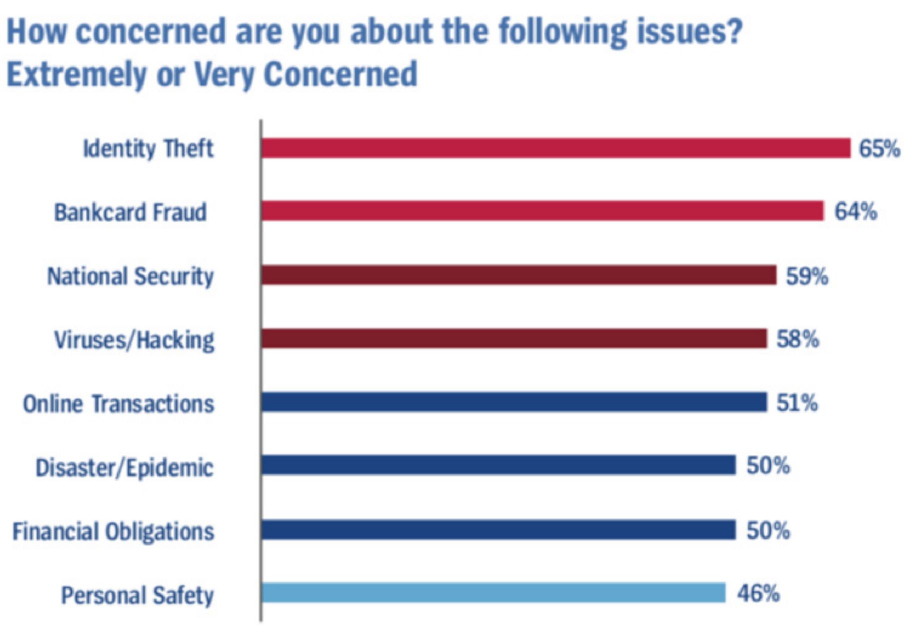
If the bank hasn't made digital transformation a core part of its strategy in advance, however, the fintech partnership won't infuse the financial institution with more of an innovation culture, Shevlin cautioned.

There are other considerations as well. Fintech contracts differ from contracts with traditional vendors. Fintech relationships can also take time to produce results, Shevlin pointed out.

Credit unions are moving in this direction as well. In early December, CUNA Mutual Group purchased Mirador, which matches loan applicants with participating lenders, including financial institutions like Umpqua Holdings, Zions Bancorp. and MidFirst Bank.

C. SECURITY

Fintech companies can also have a role in helping financial institutions beef up their security offerings, which James Van Dyke, founder and CEO of Futurion, said will be a focus of technology spending for many financial institutions in 2019. "There will be an increased focus and opportunity for consumer empowerment due to the ever-present fears regarding their finances. People are always stressed out about their private data being exposed."



Source: Unisys

Data compromise leads to credit cards being opened in a person's name, loans, Social Security, health care and many other types of fraud, Van Dyke said. "As big as these concerns are for people, there's been a lack of understanding on how data compromise enables these secondary crimes."

The threat of a data breach is a barrier to financial institution's growth, Van Dyke said. "People will not adopt new things if they have a fear of fraud."

With well-publicized data breaches at Facebook, Marriott and others last year, people are becoming increasingly aware of how the data breaches and secondary crimes are connected, Van Dyke said.

He added that consumers hold both their providers and themselves responsible for protecting their personal information.

So in 2019, banks will move to more sophisticated fraud detection algorithms, using a combination of in-house and third party resources, Van Dyke predicted. Artificial intelligence, improved fraud alerts and the evolving algorithms will enable banks to offer better identity protection to their customers. "They will shift more control to the identity holder. They can no longer live off the anecdotes of people making dumb mistakes (i.e., weak passwords)."

In *Banking Exchange*, SRM pointed out that biometrics and voice recognition have nearly 100% accuracy and will become more commonplace in mobile banking because of its ability to increase security and decrease friction for end users.

A bank's security is essential not only to protect its data and that of its customers, but also for the long-term trust in the financial institution, pointed out Trey Maust, chief executive officer of Sheltered Harbor, LLC. "Public confidence is a big driver in the success of a bank."

So most banks continue to recognize the need for investment in cybersecurity precautions, Maust said. "They need to see security not as a cost center, but as something that builds customers' trust."

But to maintain that trust and the security of the institution, banks need to invest in "the appropriate amount" of security, not just the minimum to keep regulators at bay, Maust added.

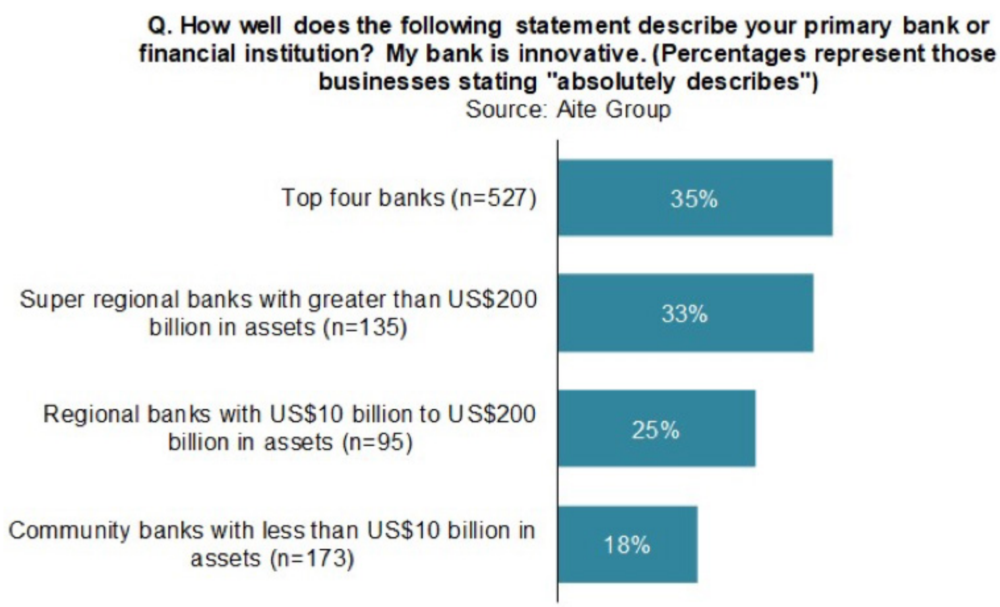
People want their banks to use strong detection and prevention methods, as well as to provide appropriate responses if a security threat is uncovered, Maust said. Banks need to have processes in place to determine in advance how they will respond to different types of security threats.

V. Building Small Business Relationships

Relationships are critical to banks retaining current small business customers and to garnering new ones because the credit, deposit and other services are available from numerous bank and non-bank providers, with little difference in fees. In turn, the small businesses provide the financial institutions with fee income as well as interest from small business loans.

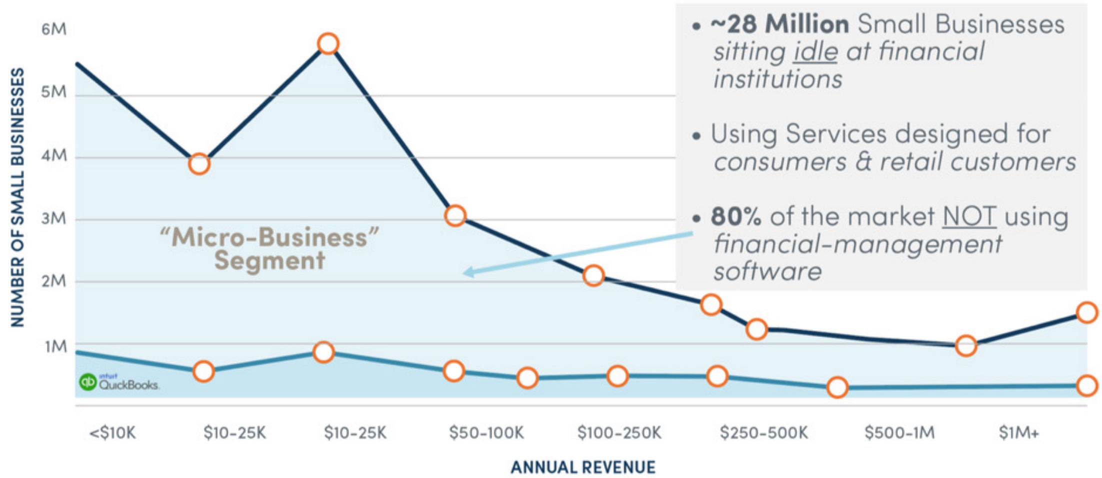
Though the need to build small business relationships has been there for many years, during the financial crisis, attention turned to risk mitigation and other matters that took higher priority. Even when turning attention back to technologies, many banks focused on the consumer or large commercial customers, with small business solutions built off those rather than building solutions designed for owner-operators of companies and other slightly larger small businesses.

"In 2019, the first thing that banks need to do is admit they don't have a compelling, digital first small business solution," said Derik Sutton, vice president of Product and Experience for Autobooks. "There are over 30 million small businesses in the U.S., that from a financial services product standpoint, have needs that are too complex for consumer and retail products, yet too simple for commercial cash-management solutions. Non-bank providers like Square, Paypal, and Quickbooks have stepped in to fill that void and are layering in more and more products and services that compete directly against those of the small businesses' primary financial institution."



Source: Aite Group

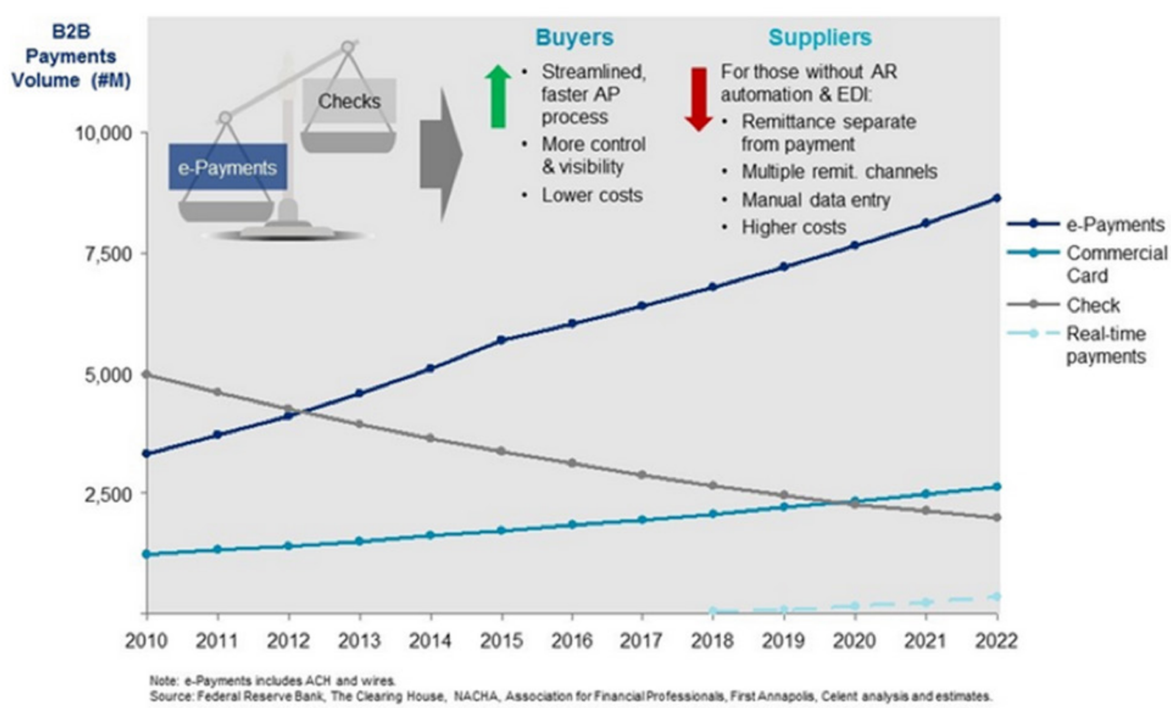
"Small business has been a tough nut to crack for a long time," said BAI's Marshall. "To me, it presents a large opportunity for banks."



Source: QuickBooks

Most of those opportunities are not from complex solutions with numerous bells and whistles, but from simple solutions that enable owners to continue to focus on the daily hustle of running the small business – most of which have less than $1 million in annual revenue, Sutton said. So small business customers want solutions for integrated receivables that can accept and track checks, ACH receipts and other types of payments, integrated payables, virtual lock boxes and mobile remote deposit capture.

E-Payment Tipping Point Is Fueling Demand for Integrated Receivables



Source: Federal Reserve Bank

Another avenue for banks to expand their relationships with small businesses, according to Sutton, is to offer low-dollar credit products that that provide funds for those businesses that need less than a traditional loan.

“One of the things that banks should look at when trying to build small business relationships is how to be a strategic partner of the business,” said David Peterson, president of U.S. Dataworks. “A lot of businesses look at their banks as partners, but they’re not strategic partners. The business sees no real difference between banks. They’re not loyal.”

So if a competing financial institution or non-bank provider offers a few basis points difference on a product, the business is gone.

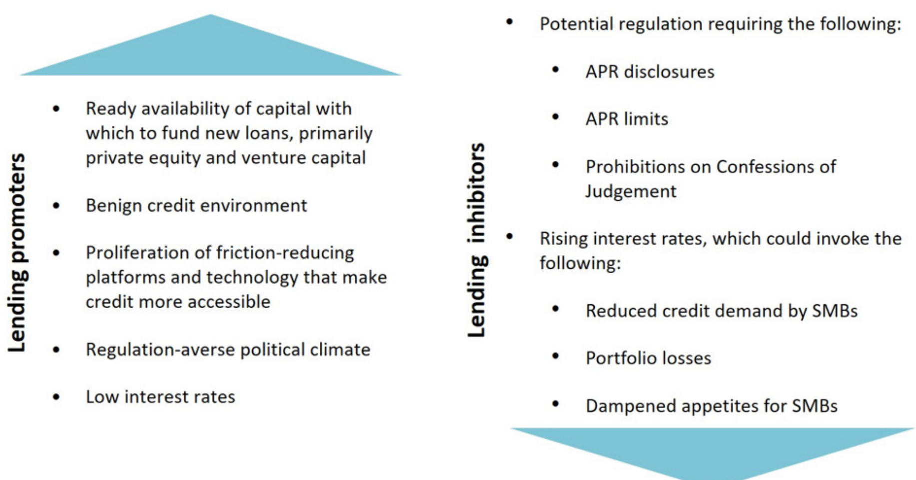
A strategic financial partner needs to help a business in one or more of three areas, Peterson said. The financial institution needs to help the business:

1. Increase revenues – offering business customers online ads in much the same way Google does can bring the business customer additional clients as well as provide the financial institution with “click-through” revenue.
2. Reduce costs – a penny saved is more than a penny earned, Peterson said, because there are no taxes or other liabilities on savings.
3. Improve the user experience – the financial institution needs to facilitate interactions with the business.

Financial institutions struggle, in part, to address all three of those areas because they don’t seek insightful communications with small business customers to uncover their needs, according to Peterson. “Banks need to start ask meaningful questions.”
Small business customers are seeking a retail-like experience, added Mike Horrocks, vice president of product management for Baker Hill.

Beyond providing an early indicator of when a small business customer might have a need for a cash management, financing or some other product or service, Marshall said. Similarly, the predictive analytics help when certain business have season funding needs – as most due, so banks can proactively make the right offers at the right times.

SMB Lending Growth—Promoters and Inhibitors
Source: Aite Group



Source: Aite Group

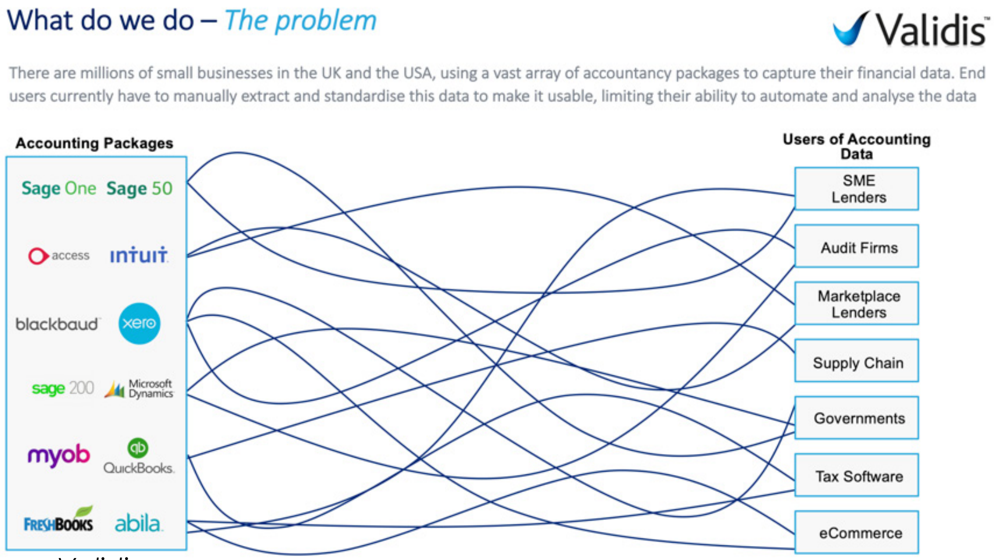
“Banks had great relationships with these types of customers, but in the last decade had to shift their focus to other matters (e.g., regulation, risk, etc.); that strained them and increased the cost of doing business, impacting the small dollar deals, leaving a funding gap at the lower level of the market,” said Chris Rentner, director, digital lending, for Velocity Solutions, LLC. Fintechs took advantage of the low cost of operations to fill this small business funding gap. But now the banks are starting to battle back, leveraging their lower cost of capital and existing trust with customers along with fintech partnerships to expand their small business relationships.

Different banks will focus on different types of technology to deepen their small business relationships, Rentner said. Some will focus on digital lending, while others will focus on technology for online account opening in order to grow the deposits needed to fund the loans with low-cost capital.

Still others will focus their small business-related technology spending to improve the digital customer experience in much the same way they are on the retail side of the bank, according to Rentner. So banks will be adding technologies that enable them to track the small business customer journey, enabling them to pinpoint areas of initial prospect interest, any issues with application abandonment and other details that can be used in conjunction with marketing efforts to better target existing customers and prospects near the point of decision.

Automation will play a large part in removing friction from the small business customer journey in 2019, Rentner added. Rather than having a customer bring all of the company’s financial statements, tax returns, etc., to the bank for new loans and annual credit renewals, banks are starting to use automated systems to pull data from the Internal Revenue Service and other third parties, greatly reducing the burden on the business to produce these documents.

But before banks can take advantage of a number of those opportunities, they need to make sure they have clear insight to all of the financial information of a small business, which is a major challenge because the bookkeeping/accountancy packages from the major non-bank providers like Intuit, Sage and Microsoft Dynamics is that they all use a variety of languages and don’t communicate with one another, said Joel Curry, CEO of Validis.



Source: Validis

"The bottleneck in working with small businesses is that banks don't have all of the necessary data," Curry said. "There's a huge opportunity to cross-sell those customers." But first banks need to reconcile data in numerous silos within and outside of the bank. With this additional data, the banks can not only uncover more cross-sell opportunities, but also make more accurate approve/deny decisions on credit.

"You need rich data to be able to compete effectively," Curry said.

Similarly, banks need to move more to automated capture of small business data, because much of the recording of that information today is still done by humans, making it prone to errors. Curry recommended that banks look to fintech solutions to remove human errors and build better relationships with small businesses.

Technology for SMB banking are "light years" behind retail systems, Curry added, echoing the sentiments of others.

Another area that Curry and Marshall see as an untapped opportunity for banks is sharing pertinent analytics with small business customers to help their companies grow.

VI. Artificial Intelligence

Offering additional products and services that meet the small business customer's needs is another way to deepen the relationship, but to do that, banks need better insight, which comes from more advanced data collection and analysis, several experts said. While artificial intelligence, neural networks and predictive analytics have been used for some time among credit card issuers and large financial institutions, the technology is increasingly gaining investments from smaller banks as they look to deepen and expand their relationships with small business and other customers.

Banks can be proactive with targeted small business offerings if they leverage predictive analytics to uncover the company's financial services needs, according to BAI's Marshall. SRM predicted that AI and machine learning will become mainstream among more community banks with increased efficiencies and more personalized services.

AI offers financial institution opportunities across a wide range of applications, said Larry Pruss, SRM senior vice president. "Banks are spending $3-$5 billion on AI, with the largest institutions spending the most. It solves a number of problems by auditing tellers, helping with compliance and know-your customer rules, reducing costs in the middle and in the back office and removing friction."

AI helps financial institutions easily recognize the right products to offer small business and retail customers, and the right time to make those offers, Pruss added.

Artificial intelligence is also behind the effort to increase simplicity for bank customers, said Keith Armstrong, co-founder, chief marketing officer of Abe, an AI software company. "As banks look to increase their customer touchpoints, they are looking to get information to customers in new ways – Facebook Messenger, SMS and conversational AI."

Conversational AI is starting to gain traction due to the increasing popularity of Amazon, Google and other voice-activated digital assistants, Armstrong said. He pointed out that research firm Canalys expects the smart speaker install base to grow from just under 100 million at the end of 2018 to 225 million by 2020.

Bank of America's virtual assistant, Erica, boasted 3.5 million users within three months of its launch, the financial institution announced at the BAI Beacon conference in October.

"There are a lot of use cases," Armstrong said. "You can ask when a bill is due, you can ask what your balance is in different accounts."

But those simple requests are only the first step of what Armstrong expects from conversational AI in financial services. He expects financial institutions to be able to reach out to initiate conversations, helping customers better manage their finances. For example, the bank could reach out when a customer's debt-to-income ratio has increased or credit score has changed significantly, offering products or services to help.

"The use cases will move from transactional and reactive to proactive," Armstrong predicted.

VII. Contributed Articles

Why is Big Data a Big Deal?

By Matt Baaki, CTO, MDT

Financial institutions are continuously finding new ways to leverage the significant amount of data they have access to so they can better serve members and customers. Large retail companies like Amazon have set the bar high, and members and customers alike want their financial institutions to provide them with a personalized experience similar to what Amazon provides.

In the past few years there has been a dramatic increase in the amount of available information that has been collected. In fact, there has been more data accumulated in the past two years than in the entire history of the human race, information that financial institutions with advanced databases are able to quickly analyze and use to their advantage.

Even with a wealth of information available, it is estimated that less than .5 percent of that data is ever analyzed and 90 percent of it remains unstructured and therefore very difficult to access, not to mention use.

So what exactly is Big Data and why is it so valuable? By definition – it is extremely large data sets that may be analyzed computationally to reveal patterns, trends and associations, especially relating to human behavior and interactions. But it is not really the sheer volume of data that is important; it is what institutions do with the data that really matters. Being able to analyze that data for insights can lead to better decision making as well as strategic business initiatives.

While credit unions and banks and both have a tremendous amount of data at their fingertips, making this information actionable is often easier said than done. It is not difficult to understand why these financial institutions want access to this data. As an example, cross-selling opportunities would be much easier and on point if they could successfully leverage information that has been obtained. However, extracting and analyzing it is a lengthy, resource-intensive project. Determining how to analyze all that data can be a daunting task, but it is important to note the potential benefits are definitely well worth the effort.

Unfortunately, there are several obstacles to effectively leveraging this data, and many financial institutions are not exactly sure how or where to begin the process. It is critical that key decision makers are on the same page as to what goals they want to accomplish – whether it is presenting more timely and relevant financial products to members and customers or better understanding their overall internal organizational performance – the possibilities are endless. In addition to establishing the goals, those involved in the initiative must answer some basic questions about the process such as:

- What is the data they will be leveraging?
- How much data will be analyzed?
- What do they want to get from the data?
- How many people will be involved with the process?
- Who will maintain the data and the timeframe for which they will receive the data? And so on.

Financial institutions have data that has been generated from different sources, including digital banking applications, online loan portals, in-branch interactions, call center interactions, online transfers and many, many more. But before institutions transform this information into actionable insights, it must become digestible, manageable and understandable. After that process has been completed, relevant data needs to be housed in a single, centralized location that is easy to access. Financial institutions can then begin to identify broader trends that provide insights into their members and customers for cross sales as well as trends within the institution itself, allowing them to anticipate future behaviors.

It is no secret that the easiest cross sales opportunities are the ones that can be made to current members and customers. At many financial institutions, using the available data can help determine what product or service they are most likely to want next. This enables the credit union or bank to offer the right product at the right time. Knowing what accounts members and customers have been researching gives financial institutions the opportunity to make personalized offers to them – just as Amazon suggests products in which consumers may be interested. Members and customers alike want to be provided suggestions of services that will help them with their finances. Having the timing right is part of a great financial experience.

Data for internal usage can identify relevant trends within a specific department – for instance, lending. Organizing loan data enables the financial institution to drill down to the specific loan level in various reports to better understand what may be driving particular behaviors. This ultimately allows the credit union or bank to better serve its borrowers and present offerings based on what is discovered from those trends.

As more financial institutions increase their use of data, the wealth of information they have access to will expand. By taking the data available and organizing it, identifying trends and determining its purpose, financial institutions can significantly improve the value they provide. This can help to ensure the member or customer will more frequently use the products they have, appreciate the new products available, significantly improve retention and improve their overall member and customer experience. Without having this type of information on the most basic product level, a relationship will have a difficult time flourishing.

Matt Baaki is the chief technology officer of Member Driven Technologies (MDT), a CUSO that hosts the Episys® core platform from Symitar® to provide credit unions with a private cloud alternative for core processing and IT needs. In Baaki's role as chief technology officer, he provides leadership in the strategic areas of product selection and integration, product implementation and support.

Beyond the Hype: eSignatures are Driving Digital Transformation

By Michael Ball, vice president, and markets & strategy, IMM

Digital transformation has quickly become one of the biggest buzzwords in the financial industry and despite the continued hype, great strides were made this past year by banks and credit unions nationwide. With a keen focus on customer engagement and enhancing the overall experience, digital technology has enabled many financial institutions, especially community financial institutions, to break down geographical barriers without adding new resources or infrastructure and reach a much broader segment of consumers.

Often referred to as the foundation of a digital strategy, eSignatures provide a prime example of how institutions have successfully deployed digital technology to streamline transactions, and provide customers with the flexibility and convenience to initiate and close transactions at a time and place that was most suitable for their schedule, regardless of traditional banking hours. For example, many institutions now have the capability to allow customers to complete a lending transaction (from origination to closing and funding) remotely – end-to-end electronic transactions.

Enhancing the customer experience will of course remain a priority, but as we move further into 2019, a new trend has begun to emerge as institutions are now exploring how digital can positively impact other aspects of their business. A prime example of this shift is eSignatures. Banks and credit unions are now exploring how this technology can be leveraged in other areas of the institution including business services like treasury management to improve compliance with bank standard operating procedures and regulatory requirements, to streamline workflow operations, as well as to automate and digitize internal employee procedures. As the industry shifts into the next phase of the digital transformation movement, the following initiatives will emerge as the most important strategic initiatives:

> **1. Digital Transaction Management** – 2018 saw banks and credit unions leveraging eSignatures to provide new self-service capabilities to customers and members, and their goal was to enhance the lending and account opening processes. This was mastered, and in 2019 they will begin looking at other applications for eSignatures, such as rules control, transaction management and compliance.
>
> We will also see a shift in focus from front-end experiences to back-end operations. Financial institutions will begin to use eSignature platforms to ensure the proper procedure for each transaction occurs, and that the right documents are presented to the right person at the right time. By focusing on automated workflows in combination with eSignatures, transactions can be completed with fewer errors and all approvals are secured with ease.
>
> **3. Treasury Management** – Expect to see an increased focus on all business services, and specifically, treasury management. Financial institutions will continue to look beyond the initial benefits of eSignatures and begin exploring how it can be applied across the entire organization.
>
> Banks will begin expanding the applications, and their top priority will be to streamline the traditionally cumbersome, paper-based treasury management process. eSignatures can be used to complete treasury management requests, and when leveraged, can make the process digital and streamlined from end-to-end.

3. Relationship Management – The increased use of eSignatures for onboarding new customers and expanding relationships with existing ones will continue to flourish. As competition from alternative banking products and third-party providers increases, banks and credit unions must ensure that the account opening processes as seamless as possible. The digital era in which we live and have grown accustomed to, has made us want convenience and immediacy. No longer do customers want to visit a branch to open an account – they want to do it online, immediately, and on top of that to be as easy as possible – one or two clicks. Think of the Amazon experience.

Providing digital account openings to build loyalty with existing accountholders and attract new customers and members and build loyalty is paramount. The account opening process must be straight-forward, painless and convenient. With eSignatures the entire process can be digital and all documents can be completed electronically, thus building relationships and ensuring customer satisfaction.

eSignature expectations are evolving rapidly, and if we look even further ahead – over the next four years –eSignatures will play a more prominent role in the mortgage process for things like electronic filings, closings and notaries. The capabilities and use cases for eSignature are endless. This is even more evident as the industry adapts to a new digital era, providing even more enhanced customer experiences, but also more efficient operations with streamlined processes and workflow automation.

Michael Ball is the vice president of markets and strategy at NJ-based IMM, where he is responsible for company and product brand initiatives, demand generation, sales enablement and partner marketing. Ball's leadership drives the strategic vision for IMM's innovative eSignature technology. In addition to serving as vice president, Ball is a frequent spokesperson at industry events and conventions, representing the eSignature company and its technologies.

Small Businesses: A Promising Market for Growth

By Eric Brandt, senior market analyst, D3 Banking Technology

Small business banking has seen solid growth in the past several years. Savvy banks and credit unions are beginning to find ways to better serve this market, a traditionally underserved group, by providing product offerings tailored to their specific needs. In the past, many small business owners were forced to either leverage corporate banking solutions, or manage their finances via consumer accounts, neither of which was a good fit for small business owners. This group's desire for a seamless experience on the device of their choosing is the force driving banks and credit unions' product offerings for small businesses.

This move toward better serving this market is not accidental; catering to small businesses holds a lot of potential. The small business market is not only growing, but thriving. According to the latest Wells Fargo/Gallup Small Business Index, which is calculated from a quarterly survey of 604 small business owners and measures current and future perceptions of their business financial institution, optimism among small business owners has reached a record high. In Q3 2018, the overall index score significantly increased to 129, the highest score in the survey's 15-year history. Three quarters of survey participants said that they expect very or somewhat good cash flow in the next year, proving that this is a market to pay attention to, and its future looks bright.

Banks and credit unions must eliminate silos to truly meet small business needs. Consumers want the flexibility to decouple their business and personal lives while maintaining the convenience of using the device of their choosing for both accounts, so small business banking platforms should offer the same flexibility while maintaining a consistent user experience across their consumer and small business operations.

Key features of a digital small business banking platform

Small business owners have different needs for their business banking, and they demand that financial institutions provide them with a consistent user experience that is tailored to these unique needs. This has challenged banks and credit unions to not only provide the right products and services, but provide them quickly and continuously. Financial institutions wishing to protect and grow the value of their small business offerings will need to provide products and services tailored to those organizations. They cannot afford to continue the "round peg into a square hole" practice of the past where small businesses were offered little or nothing of value. Below are some examples of the features small businesses expect from their financial institutions.

- **Toggle** – Having a single login that allows users to access personal and business accounts eliminates the need to remember multiple passwords and repeatedly log in and out to access the information and services they need. This capability generates a "stickiness" that enhances customer retention and improves customer satisfaction, as well as creating additional revenue opportunities for banks and credit unions.
- **User Entitlement**s – Allowing small business owners to determine who can access what accounts and what services while also setting thresholds for authorizations and approvals is key to small business owners. This feature enables owners to allow employees to help manage finances while securely monitoring and managing who has access to what bills, documents or transfer functionality, with appropriate limits and controls.

- **Automated Intelligence Reporting** – Providing information on budgets, cash flow statements, expenses and income statements - all automatically populated and distributed within the digital banking interface - allows the business owner to better manage cash flow and project the needs of his or her business over extended time periods. For financial institutions, this provides a great opportunity to not only strengthen the relationship with the business owner, but also provide additional support to the small business if needed.

In a banking environment filled with competing priorities, financial institutions can't put small business banking on the backburner. By prioritizing the small business segment and providing the specific features and functionality these businesses need, banks and credit unions can successfully expand their footprint in this important client segment.

Customers and members ultimately want convenience and a consistent experience across accounts. Therefore, banks and credit unions must continue to develop and evolve their products in order to meet these expectations. Financial institutions must deliver convenience, a consistent user experience across all accounts and value added services that help small business effectively maintain a financially healthy business. These are the table stakes.

Eric Brandt is senior market analyst for D3 Banking Technology, provider of the industry's most advanced digital banking platform. In this role, Brandt leads strategic market planning, content management and event coordination for D3 to enhance awareness and support sales. D3's platform allows banks and credit unions to increase engagement, decrease complexity and innovate more quickly; more than 3 million users are currently enhancing their digital banking experience using D3's technology.

The Top Three Driving Forces of The Financial Services Industry In 2019

By Karl Dahlgren, managing director of Research at BAI

The top financial services forces in 2019 can be summarized in one word: growth. Rates are rising and the race for deposits has become the number one focus industry-wide, shifting away from 2018's primary focus on addressing regulatory compliance challenges. As part of the BAI Banking Outlook research program, BAI surveyed a combined total of over 1,200 consumers and financial services leaders, from organizations ranging in size from community banks and credit unions to large mega banks, to uncover the top trends and expectations for the financial services industry in 2019. These research-based insights provide a first-look into the top business challenges and opportunities facing financial services leaders and what leaders should focus on improving in 2019.

Focus on Opportunities for Digital Growth

Building and retaining relationships in a digital era is not getting any easier, according to industry leaders. In 2017, less than a third of respondents felt it was easier to build and retain relationships in a digital era – and only a quarter of respondents agreed to this sentiment in 2018. Digital interaction with customers is one of the biggest gaps that financial services leaders are seeking to close over the next two years, but many are unsure where to focus the efforts: deposits or loans? The short answer is that the focus should be on both.

Traditional banks are at risk of losing market share as consumers are rapidly shifting their attitude toward direct banks. According to the BAI Banking Outlook, most consumers do not believe that their main bank will allow accounts to be opened online over the next few years, but they increasingly desire this feature. Most customers begin their search for a new product by visiting their main bank's website or conducting an online search for a product based on specific criteria. However, many customers who shop online do not actually open an account due to "time," "gave up," or "waiting," proving the shopping and opening process is difficult. This disconnect has provided a meaningful competitive advantage to online or direct banks, as two-thirds of consumers who said they opened a deposit or loan account via online channels did so with an online or direct bank.

While digital account opening services carry a higher operational risk, financial services organizations no longer have the luxury of ignoring this clearly articulated consumer preference. It is no longer a "nice to have" feature; it is a necessity for traditional institutions to offer in order to increase or maintain retention among, Millennials, Generation X and Generation Z.

Strengthen Customer Relationships by Addressing the Cross-Selling Dilemma

Another important area for growth in 2019 is deepening relationships with existing customers. However, according to research from the BAI Banking Outlook, cross-selling is actually hurting customer relationships and lowering net promotor scores (NPS). The average NPS for customers who have not recently been cross-sold is 36, while the average of those who have been recently cross-sold is 31. This means that cross-selling customers can lead to lower client loyalty, which is the opposite desired outcome of expanding customer relationships.

Not only does relationship deepening potentially damage the relationship a financial services organization has with customers, the industry's average NPS is significantly lower than other industries. Satmetrix provides publicly available data regarding NPS across various industries. On average, the retail NPS score is around 50, while online shopping averages around 45. Department or retail specialty stores are on the high end of the scale at 62, and brokerages are an average of 50. These figures are significantly higher than the banking industry's average of 35. Even Baby Boomers, who have the highest NPS around 50, also drop below average after being cross-sold.

It is important for financial services leaders to address the cause of discontentment when expanding customer relationships through cross-selling. Across the marketplace, the experience of opening an account has a negative influence on loyalty. This brings us back to the issue of online account opening. Many consumers found that even if they decided which product they wanted during their online search, it is often difficult or impossible to open a deposit or loan account online and requires going into the branch. Additionally, two thirds of financial services leaders reported that they cannot track shopping on their website that leads to account opening in the branch, or determine where the process went wrong for those who tried to open an account online. Financial services leaders should seek to address this disconnect between online channels and the branch, as it is a key part of low NPS.

The Growing Influence of Fintechs on Financial Services Organizations
With many signs pointing toward addressing digital issues in 2019, it may come as a surprise that 86 percent of financial services leaders stated that they have not learned any lessons from the fintech community that can be implemented in 2019. While the majority feel competitive pressure from fintechs to "some" or a "large" extent (64 percent). Although the majority of leaders feel as though fintechs are competition, 64 percent plan on collaborating with outside fintech companies, 28 percent are considering acquiring a fintech and 8 percent seek to build fintech capabilities internally in 2019.

Many fintech organizations prioritize using agile processes as part of their innovation and product delivery processes, and the consumer perspectives clearly indicate that financial services leaders should not ignore fintech developments. Financial services leaders should consider collaborating with fintechs to address growth challenges and speed to market, particularly related to digital experiences.

As deposit growth makes its way to the primary focus, financial services leaders should strive to address growing consumer expectations and demands. Consumer preferences are rapidly shifting toward online banking, and online account opening is an integral part of this shift. Financial services leaders need to be aware of how cross-selling is impacting their organization's NPS and seek to address difficulties associated with the multichannel experience, including developing a seamless transition from online engagement to in-person interactions. Instead of viewing fintechs as direct competition, traditional financial services organizations should consider leveraging the advancements and insights from these innovative organizations. The financial services leaders that navigate these top concerns in 2019 are the ones destined to retain their customers and shine among their competitors this year and beyond.

Karl Dahlgren is the managing director at BAI, leading the Research line of business. This line of business offers financial services leaders the actionable insights and powerful tools they need to make smart business decisions. Dahlgren has worked in the financial services industry for more than 20 years, including roles in banking, payments and software industries. For more information about Dahlgren, visit his LinkedIn.

Making Payments Smarter in 2019

By Fran Duggan, CEO of Payrailz

Throughout 2018, the industry saw artificial intelligence become increasingly more important in a variety of ways. In 2019, AI will come of age to be one of the most important driving forces in the financial industry. Financial institutions will be using new and innovative technology to set themselves apart from the competition, which will be particularly important for community-focused banks and credit unions.

Financial institutions of all sizes are facing greater challenges in 2019 as the industry as a whole continues make strides in improving banking and payments. Now more than ever, they need to rely on key differentiators to compete more effectively in this competitive landscape.

AI is only as Good as the Underlying Data

Financial institutions cannot simply claim that they are implementing AI-based solutions to stay ahead of the pack. Instead, these financial institutions should creatively use data to drive AI in order to make consumers' lives easier and add valuable experiences. Already having this data is a true competitive advantage that banks and credit unions bring to the table.

One significant way institutions can use data and technology to improve relationships is to incorporate AI into the payments experience. In 2018, and certainly going into 2019, consumers have developed a "do it for me" attitude, in which they expect to have many everyday tasks automated for them. Consumers are now expecting that their financial institutions will have the ability to make simple interactions more convenient, just as other consumer-facing industries have made simple interactions an afterthought.

The financial services industry must do everything it can to catch up to other consumer-facing industries, such as the ride-sharing industry or the meal-kit delivery services, as consumers increasingly turn to technology to add value by simplifying their lives. They want someone, or something, to do it for them.

Often, this "do it for me" expectation manifests itself by creating a personalized, automated experience. Focusing in on better digital experiences has the power to strengthen relationships between an institution and consumers, simply because consumers appreciate having services personalized, which can create the impression of having a digital "private banker."

Financial institutions will effectively be able to offer all their consumers and businesses this concierge-type experience previously only available to their elite customers. A "private banker" experience would manage the account holder's day-to-day banking needs, including paying bills, making payments, monitoring account activity and managing cash.

Leveraging Tech to Create Smarter, Safer Payments
Using AI and other smart applications in payments can take many different forms, but for the most part, financial institutions should look to find ways for technology to help their customers or members to proactively make smarter decisions with their money. This technology can help consumers proactively pay their bills, or offer smart recommendations on the most efficient accounts or services to use when saving excess funds.

The payment experience itself then becomes proactive and predictive, making a smarter, more engaging experience. Consumers will value such experiences and proactively go to their bank or credit union for new product and service offerings, which not only results in new business, but improves the retention of existing business. Financial institutions have access to rich consumer data, which they can use, with permission, to create better, more engaging experiences for consumers through the power of AI.

Partnering with Fintech Friends, not Foes
Many financial institutions are facing an uphill battle in their attempts to transform their payments experiences and partnering with the right fintech organizations can often be the answer. For the most successful partnership with a fintech organization, financial institutions need to confirm that potential partners have similar industry objectives; they must also share the goals of their financial institution clients, instead of making up the competition. These partners must have strategic plans for innovative product offerings now, and in the future. Finally, they must be aware of the industry challenges and concerns, especially when dealing with sensitive consumer information or when under strict regulatory requirements. If a fintech organization shows signs of all of these traits, financial institutions can rest assured knowing they have selected the right partner.

Fran Duggan is CEO of Payrailz, a digital payments company offering advanced bill payment and money transfer solutions to banks and credit unions. He is an experienced payments entrepreneur and visionary with a successful track record and more than 30 years of experience in financial services.

A More Complex Payments Environment on the Horizon in 2019

By Steve Gilde, director of global product marketing, Paragon Application Systems

The new normal

Consumers continue to embrace electronic payments of all shapes and sizes. Meeting this ever-growing demand for payment choice and ensuring that every consumer payment experience is perfect every time requires that financial institutions recognize and adopt a fresh approach to testing in order to remain relevant and competitive. This "new normal" requires that organizations focus on automation, integration, control and security.

A business as usual attitude toward payment testing will not keep up with the accelerating pace or scope of change:

- Manual processes are too slow, cost too much and do not provide comprehensive test coverage. They also introduce unnecessary risk to the testing equation.
- Automation is a critical requirement to improve delivery times, increase efficiency and accuracy, as well as improve test coverage.
- Payment testing must be integrated with other enterprise systems such as application lifecycle management tools, agile development processes and DevOps.
- Development, testing and QA resources need modern and efficient tools to provide adequate controls while facilitating communication and collaboration.

Legal and regulatory changes

It is essential that compliance is a top priority for financial service providers. As we have seen from many recent incidents from all across the globe, organizations that are either unable or unwilling to meet legal, regulatory and industry mandates face significant fines and/or penalties, as well as long-term brand damage and lost shareholder value, making the cost of non-compliance extremely high.

For all companies, mandated changes must be exhaustively tested to ensure compliance. Manual testing methods do not provide the control or audit capabilities required to keep up with the current legal and regulatory environment. Financial institutions that rely on manual testing methods and processes will find it more difficult to stay up-to-date with industry requirements, putting their business at a competitive disadvantage and accruing increased risk.

More change

"Technology compliance" continues to have a major impact on the payments industry. One focus area for 2019 is the industry-wide effort to upgrade all full-service ATMs from Windows 7 to Windows 10. Microsoft will end support for the Windows 7 OS in January 2020. Financial service providers who drive ATMs typically have policies in place that do not allow them to run unsupported software, so this is a big deal. No one wants to make the same mistakes as organizations have in the past, such as those affected by the WannaCry ransomware attack in 2017.

With just 12 months remaining for the entire ATM industry to convert, financial institutions are now in the home stretch. Making this conversion will require significant planning, development and testing and unfortunately, many will have challenges that will cause ripple effects across the payment industry:

- As a "compliance" project, the Windows 10 migration effort is going to drain money and resources from other projects.
- Many ATM drivers have yet to start their migration projects, and time is limited.
- The skilled ATM technicians needed to make necessary changes at and on the ATM devices are also limited.
- Recruiting additional support will be difficult with the time constraints and other industry projects.

Later in 2019, we will start the final 12-month countdown toward the liability shift for EMV transactions at automated fuel dispensers (AFDs). Upgrading and migrating existing fuel dispensers for EMV has been much more complicated, time consuming and costly than anyone could have imagined. Even with the extra time given to address unique issues associated with AFDs, there are still issues with the availability of EMV-compliant hardware and software components, as well as skilled field technicians.

Many major changes will occur over the next several months, and the industry needs to embrace and get comfortable with the new normal. Financial institutions that cannot operate at the speed of change will get left behind. To succeed in this fast-paced, ever-changing environment, institutions must:

- **Simplify.** Eliminate inefficient, redundant and high-risk legacy systems in favor of robust and high-performance testing platforms that offer the flexibility and control to be successful in today's dynamic environment.
- **Virtualize.** By virtualizing the testing environment, financial institutions can improve both control and collaboration, automate redundant tasks, increase their testing efficiency and improve test coverage.
- **Integrate.** Use available APIs to connect internal and external systems together to promote communication and collaboration.
- **Protect.** Factor security into every aspect of the testing infrastructure.
- **Test.** Focus on expanding the test coverage and understanding how all the elements of payment systems work together at scale.

A few simple steps can save a significant amount of time – and money - in the long run.

Steve Gilde is the director of global product marketing for Paragon Application Systems, an independent provider of simulation, configuration, certification and end-to-end testing solutions for the financial services industry. Gilde has more than 30 years of experience in the payments technology industry. In his role as the director of global product marketing, he develops and implements sales and growth strategies for Paragon's next generation payments and testing solutions.

Community Banks Should Build a Mobile Business Banking Strategy in 2019

By Matt Johnner, president and co-founder of BankLabs

Community financial institutions, like community banks and credit unions, often carry the stereotype of focusing solely on the consumer retail banking market of their community. And while serving the financial needs of teachers, mechanics, nurses, etc. is a vital part of any institution's growth strategy, ignoring commercial customers leaves a gap in a well-rounded portfolio of services. Commercial customers, especially local small and medium businesses, should be a primary focus of a community institution's ongoing strategy.

Locally based companies want to do business with an institution they can trust and that is also invested in their community. In many cases, the key executives may already be customers or have relationships with their community bankers. And commercial customers can provide a higher profit margin and more lines of revenue. Corporate customers are more likely to opt in for premium services that generate revenue in exchange for valuable tools for managing the company's financial needs.

And one common theme for commercial financial tools echoes the theme consumers have been demanding – the need for mobile options.

Build Mobile Commercial Tools to Retain and Grow

Most financial institutions recognize the importance of mobility tools for the retail customer; however it is just as important to take the same approach with commercial customers. In the coming years banks will have to shift toward providing more services in a mobile setting.

Already, many companies are creating mobility tools that help banks serve their commercial customers. Technology companies have developed tools that enable commercial banking customers to more easily interact with their bank. Apps and other mobile tools enable these commercial customers to do their business more efficiently and effectively. Mobile tools can help companies simplify the process of getting a loan and keeping up with its status, or help them use that loan to make payments to other parties. Having automated, digital tools eliminates paper-based processes or legacy systems. This can reduce error and save time.

Using these tools can help the banks grow. Since the commercial market is one that is traditionally overlooked or underserved by smaller financial institutions, there is an opportunity to meet a large need. When financial institutions make mobility tools as accessible to commercial customers as they are to retail customers, they will not only meet a need in the industry, but they will have a competitive advantage.

Having access to mobility tools for commercial customers also gives banks what they need to better leverage their relationships with the community and its businesses. Many times, the relationships are already there, banks just need the right services and tools to offer these businesses in the community.

Going forward, the community institutions that will be most successful and most competitive are the ones that are able to serve their entire community: both people and companies. Serving the companies in the community not only puts a smaller FI ahead of other institutions, but it helps them compete with big banks, as well. There are big banks that also lack mobility tools that serve their commercial customers. Being able to offer these technologies can not only put a smaller bank ahead of comparable institutions, but the much larger ones, too.

What's more, serving companies also brings the added benefit of serving its employees. When a community financial institution works with a company, it interacts with its employees. This helps build relationships and even stronger ties to the community. If the employee is impressed by their experience with the bank, they are likely to do their own personal banking with them in the future. This residual benefit of working with commercial customers has potential for a significant impact on the growth of the financial institution's retail customers.

When it comes to the future of banking, one thing is sure, commercial customers are not going anywhere. These companies will always need loans and will always need a bank to do business with. Someone has to serve them and the banks that do will have the competitive advantage. When smaller banks take advantage of both their community relationships and mobility tools to help serve their commercial customers, they will be the winners in the future.

Matt Johnner is President & Co-founder of BankLabs, a national provider of innovative mobile technology products that help community banks improve efficiency, differentiate with customers, create new fee income, increase deposits and create marketplace options that expand business opportunities. Matt focuses on corporate strategy, branding and growth plans including the execution of all sales, marketing, business development and customer success activities.

Fintech Deals to Watch: What 25 Recent Deals Tell Us About What is Coming

By Sam Kilmer, senior director, Cornerstone Advisors

If you want to know what's really going on in an industry, follow the money. That's certainly the case in banking and fintech.

Money talks.
2019 is a big money year in fintech. The year wasn't three weeks old and one of the biggest fintech deals ever (**Fiserv**'s $22B proposed **First Data** acquisition) was announced to the Street. And recent deal activity in the last several months across digital, lending, payments, and infrastructure tells a big fintech story even beyond that.

While the rise of many startup fintech companies was about value creation through competing against banks for customers, an increasing amount of fintech activity is about value creation through working with banks. For all the dismissive tone about banks and tech sometimes as barriers, the integration work of banking has always been underestimated hard work. To stay competitive with larger institutions who lever massive tech arsenals, more and more banks of all sizes are taking integration upon themselves and bringing in chosen solutions to work together. While some fintech providers consolidate, more start up. The halls of AFT, Finovate, and Financial Brand Forum bustle with new names.

WHAT FINTECH DEALS ARE TELLING US TO WATCH FOR IN 2019

Digital revenue generation with lead gen and pull through improvement

Lending process that ties analytics directly through to digital execution

Payments consolidation and convergence with total commerce

More control and integration support

Digital: Getting Real, Especially Revenue Gen
The tipping point toward digital transactions as the primary banking channel has already passed, but most banks are still struggling to make their sales, marketing, and service interactions smooth using digital self-service beyond transactions. According to Cornerstone Advisors' What's Going On 2019 research, the #1 technology application being implemented or replaced in banks over the coming year is digital account opening. It's been the highest change category for several years running in the study. 36% of banks and credit unions are planning to implement or replace digital account opening systems this year. And many banks are already on their second or third iteration of these systems. Think about that. Over a third of the market is changing out. That's 4X the change rate of core systems and 2X the change rate of transactional digital banking systems. Digital account opening was also the #1 cited reason for banks to explore fintech partnerships. By far.

Key Deals:

- *Adobe/Marketo*
- *Finastra/Malauzai*
- *FIS/Zenmonics (investment)*
- *Jack Henry/BOLTS*
- *Kony/Pivotus/Umpqua*
- *Live Oak/First Data/ Apiture*
- *Q2/Gro Solutions*
- *Temenos/Avoka*

Journey mapping exercises have rightly gone into overdrive with so much digital overhauling going on. Overhauls don't come cheap and most bank executives are looking for more than "experience" to cover the tab. Increasingly, they are looking for explicit revenue generation.

"OUR PROCESS REWORK HAD THE FRONT OFFICE INTENSITY OF A CORE SYSTEM CHANGE ON THE BACK OFFICE."
- FINANCIAL INSTITUTION EXECUTIVE

In response to the journey/ integration challenge, nearly all the industry's major core providers and one of the major digital providers made digital sales related acquisitions or investments that can drive experience AND revenue improvements. **FIS** made a significant investment/partnership in Zenmonics, Jack Henry acquired **BOLTS**, Temenos acquired **Avoka**, **Finastra** acquired **Malauzai**, and **Q2** acquired **Gro Solutions**. **Live Oak Bank** (which birthed **nCino**) partnered with **First Data** to create **Apiture**. And, digital provider Kony acquired Pivotus Solutions from **Umpqua Bank**, bringing a platform for service and sales interaction to the broader banking market. **Adobe** acquired **Marketo** which rolled up the major digital marketing competition to **Salesforce** (which has **nCino** as the tip of its industry spear). Where there weren't deals, many other providers announced or quietly began rolling out internally built digital sales oriented solutions. 2019 will be a year of testing and learning for these tools in generating revenue, especially in competing for much needed deposits. Proving out the integration within these digital mashups will be a focus. The banking industry has spent a lot of time engineering the back room to manage costs. With digital, look for 2019 to be about revenue engineering the storefront to win and grow customers.

Key Deals:

- *Accel-KKR/Sageworks/ Abrigo*
- *CUNA Mutual / Mirador / Compliance Systems / Finivation*
- *Fiserv/Warburg Pincus/ Sagent Lending Technologies*
- *Moody's Analytics / REIS*
- *Q2 / Cloud Lending Solutions*
- *Thoma Bravo/ MeridianLink/CRIF*

Lending: Mashing Up Analytics & Digital

From commercial to consumer lending, the credit process is one that banks have been re-working to reflect the shift to digital self service buying. We are at the beginning of the end of charming "sell me this pen" rainmakers driving bank sales, including loan volume. It's not Wells Fargo fallout or regulatory driving this change, but the buying shift underway toward self-service discovery on digital. Whoever started the false industry narrative that "customers want to visit the branch for complex needs" didn't notice that the most complex and impactful financial need most consumers face (getting a mortgage) is the one most often digitally purchased. More consumer loans, small business loans, deposits, and payments purchases are trending that way too.

In turn, there was a LOT of investor interest in digital lending platforms. Private equity firm **Thoma Bravo** recently acquired and merged both **MeridianLink** and **CRIF Lending**, companies with platforms that include digital loan origination, auto-decisioning, and some process analytics. **Q2** acquired **Cloud Lending Solutions** (shortly followed by **Gro Solutions**) which took a digital banking provider entirely into digital loan and deposit origination in a one-two punch. **Fiserv**'s selloff of a majority interest in their lending solutions to **Warburg Pincus** (into what became **Sagent Lending Technologies**), was a move designed to inject more outside investor energy like one would see in platforms like a **MeridianLink** or a **Mirador**. And following a focus on their **AdvantEdge Analytics**, **CUNA Mutual Group** had a string of complementary acquisitions to AdvantEdge that follows the lending process front to back with LOS fintech **Mirador**, enabling platform **Compliance Systems**, and integration specialist **Finivation**. Meanwhile, **Moody's Analytics** acquired commercial real estate analytics firm **REIS** and **Accel-KKR** acquired **Sageworks** and placed it into analytics and lending mashup with **Bankers Toolbox** and **MainStreet Technologies** now combined as **Abrigo**. With lending, look for 2019 to be about expanding analytics in lending from use in credit and compliance risk to use for growth, revenue, and responsiveness.

Key Deals:

- *CapitalOne / Wikibuy*
- *City National Bank / Exactuals*
- *Deluxe / First Data remittance*
- *Fiserv / First Data*
- *Fiserv / Elan*
- *NCR / Jetpay*
- *Square / Weebly*

Payments: Consolidation and Commerce Convergence

The pending **Fiserv / First Data** deal dwarfs all the other recent payments fintech deal activity in terms of size, yet the relatively low 2X revenue purchase price speaks to it not being entirely where standout future growth is expected. Based on initial projections, the purchase price also likely reflects it being a good value for Fiserv. And it follows Fiserv's announced acquisition of **Elan** from US **Bank. Deluxe**'s Wausau acquisition of **First Data'**s remittance business is similar in being largely a consolidation rollup of mature payments businesses with some growth potential.

Square's acquisition of **Weebly**, **Capital One**'s acquisition of **Wikibuy**, **NCR**'s acquisition of **JetPay**, and **City National Bank**'s acquisition of **Exactuals** are all growth examples of payments convergence into whole commerce. The Exactuals acquisition is a case study in where payments fintech is headed. Exactuals is focused on complex payments in the entertainment industry. They use analytics to simplify the distribution of entertainer royalties. City National Bank is the "bank to the stars" focused on serving the banking needs of the entertainment industry. The Exactual deal represents company, commerce, payments, and analytics strategies all in one. It's a niche bank adding value to the broader commerce of their chosen niche target clients through a niche acquisition. Look for 2019 to be about more mature payments consolidation and payments/commerce convergence. Payments organizations will increasingly be supporting businesses and consumers in their connectivity and end-to-end commerce.

Key Deals:

- *IBM / Redhat*
- *Salesforce / Mulesoft*

IBM and **Salesforce** offerings are in widespread use in banking as well as other industries. IBM recently paid $34B to acquire **Redhat**, a company that undoubtedly changes the banker/vendor/fintech power balance in the sandbox as it gives banks more control of their tech deployments as more applications move to the cloud.

IBM's purchase price of around 11X Redhat's revenue speaks to its expected bullish growth expectations. The biggest recent multiple winner though was **Mulesoft**, a company which links business apps, databases, and corporate IT infrastructure. **Salesforce** acquired Mulesoft for 20X revenue or $6.5B. Growth expectations for these integration capabilities to fuel API-based competition are at the very top of the value heap. And, from what I heard from my Cornerstone Advisors colleagues and bankers alike, the Mulesoft valuation might just be worth it because of the focus on easing integration pain. Look for 2019 to be more about easing integration pain while driving down infrastructure costs on the basics to free up more resources, more analytics that drive revenue.

Whether in digital, lending, payments, or infrastructure, the lack of integration remains one of the biggest pains in the industry. With all of the new developments in the market, the integration challenge is something that hasn't changed since years ago when I led digital banking and analytics as a banker and implementations, partnerships, and strategy for a couple tech firms. In our consulting work at Cornerstone Advisors, we still find that lack of integration continues to be one of the top reasons banks change systems they build, buy, or partner with in fintech. As competitive and earnings pressures rise in 2019, watch for even more fintech deals that tackle process integration to drive better revenue.

Because money talks.

Sam Kilmer leads advisory for fintech providers at Cornerstone Advisors. Kilmer's experience includes management at two midsize banks and two tech firms in strategic planning, digital delivery, marketing, analytics, and partnerships. Sam is a regular contributor to Cornerstone's GonzoBanker and Insight Vault, where fintech deals are covered. He can be reached (480) 425-5210, skilmer@crnrstone.com, and @samkilmer.

Strengthening Commercial Portfolios with Hospitality Lending

By Anuj Mittal, co-founder and CEO of CrediVia

Hospitality financing has traditionally been an outlier in commercial lending portfolios. Hotels don't have the same long-term certainty as other CRE loans; the daily nature of their revenue is more unpredictable, which can give lenders pause. However, U.S. hotel occupancy is projected to reach record levels again this year, marking a ten-year uptick. According to a forecast from CBRE, a real estate and investment firm, occupancy will rise to 66.2 percent in 2019, fueled by a 2.1 percent bump in demand, and offset by a hotel supply increase of 1.9 percent.

The sheer size of the hotel industry must also be considered in its potential. STR's 2018 HOST Almanac reported that U.S. hotel industry revenues topped an estimated $208 billion in 2017. Lending projects including new construction as well as renovations and brand conversions totaled $42 billion in 2017. Last year's numbers, which will be reported in a couple of months, are expected to show continued growth.

Experts agree that hotels haven't hit the top of this economic boost yet; they will likely have another couple of years of growth, bringing plenty of opportunities for lenders. New construction supply will even out and lending activity will shift to renovation and brand conversion projects as existing hotels work to stay competitive. Borrowers who have completed construction projects will also look for take-out loan options. And, more borrowers will turn to debt-like equity with their capital stack structure to achieve a more favorable loan-to-cost ratio – examples include FF&E loans, EB5 debt, C-PACE financing, mezzanine debt, preferred equity, common equity, and crowdfunding.

Meeting the demands of hotel lending requires a specialized understanding of the market and a funding process that is more detailed than a traditional business loan. For starters, hotel loans are much larger than other commercial loans. There is also a human element to hotel lending that needs to be considered, a deeper story and personal need behind every loan request. That $42 billion loaned in 2017 considered all these factors, and it was accomplished almost completely offline through phone calls and emails. Hotel loans were taking an average of 3 to 4 months to close. Thanks to an increased comfort with digital offerings, the industry has been able to improve the borrower application and underwriting process – streamlining the many nuances of the workflow that remained largely unchanged up to this point. The typical time spent processing a hotel loan can be cut by at least 50 percent with modern portals and workflows. The efficiency savings allow lenders to grow without adding resources; in effect, lenders can double their closing rates without adding costs.

More lenders are investing in tools that make pre-qualifying leads easier as well. Better workflows to identify and analyze loan requests ease the burden of identifying new deals that fit a lender's unique criteria. And, the entire process is continuing to mature. Private and personalized offerings are emerging to enable borrowers to better know their lenders, providing a confidence the lender will close the deal. Also, AI will soon begin to offer new operational efficiencies, resulting in improved portfolio performance.

Hotel lending is one of the more successful lines when evaluating total return and customer profitability. Positive economic factors, combined with new efficiencies realized from major technology advancements, are giving lenders the confidence to increase their investments in this sector. Its high rewards can be a strong addition to any lending portfolio. In boom times for the hospitality industry, lenders must make the most of the many opportunities awaiting them.

It's time to take advantage of the latest tools to close more loans, faster. Hotel lending is a smart vertical for financial institutions that can structure their application and funding process to lessen the risks involved.

Anuj Mittal is co-founder and CEO of CrediVia, a cloud-based platform that directly connects hospitality lenders and borrowers, allowing them to have the greatest potential for mutual success. Visit CrediVia.com or follow @CrediVia for more information.

How Digital Transformation Can Modernize Your Financial Institution

By Lisa Nicholas, president, DBS

Digital transformation is term we have all heard of and think we have an idea of what it means. But I wonder, are we just being brainwashed by vendors trying to promote an idea to sell more products or is digital transformation something we really should be doing? There's no doubt that the financial services industry has created some issues over the years with its legacy and disconnected systems; however, is digital transformation (DX) the answer?

Over the years, multiple vendors have pitched different systems that pull us even further from connecting our customer experience. Yet we buy in because we are desperate to fix the issues at hand and think that another piece of technology will come to our rescue. There is no core system on the market today that can truly connect all the puzzle pieces to create less friction for our customers and employees.

We must start thinking about DX as our engagement layer. It is not a core or an underwriting system; instead it's a layer in our technology stack that bridges all the disconnected systems so that we can fix our disjointed customer experience. Digital transformation is about being in real-time and bridging the customer experiences across all products and services. DX means that we begin to use machine learning and artificial intelligence to enhance the customer experience by using data to problem predict and serve up useful solutions for customers and employees alike.

What can Digital Transformation can do for your organization? Here are 10 things that can get you started:

1. **Connect advertising and marketing.** Gone are the days where it's okay for marketing to run billboards or radio advertisements and hope for the best. Your digital layer should help the marketing team leverage 1st, 2nd and even 3rd party data to provide relevant and timely advertisements that can be tracked through to conversion – not just clicks to a page, but enabling them to connect through to actual funded loans and open accounts. They should be able to show how many leads, opportunities, applications and funded/open accounts you receive by day, week, month, and year. Additionally, they should have the ability to produce reports that show which channels are providing leads, and which ones have the highest conversions.
2. **Making the website a digital branch.** DX can elevate your website; it should be a lead-generating machine, producing more leads than your top branches combined. If the site is not using data to provide personalized experiences for visitors then ask why not? Your website should leverage data about your known and unknown visitors, so they have a personalized, relevant experience. Leveraging chatbots and cloud scheduling should also be on the to-do list. Feedback needs to be an option so your customers can engage and provide comments giving you valuable insight into which content is useful. The website should also kick off journeys for main product lines and content asking customers to sign up throughout the site.
3. **Provide business intelligence through visualization.** Using Excel spreadsheets to provide organizational reports should quickly become a thing of the past. Your engagement layer needs to provide employees access to their daily and monthly goals compared to production in real- or near-time. Making good strategic decisions should be easy with data visualization tools that enable you to see the same data in ways not possible with basic tools like Excel.

4. **Lead scoring.** DX should leverage ML/AI to learn how incoming leads perform and serve up a lead score that predicts the likelihood this person will purchase.
5. **Next Best Action.** The engagement layer is built on data and must go beyond the linear next best product suggestions that some systems provide. People don't purchase in a linear fashion so the engagement layer must use ML and AI to identify products that are appropriate for your customer based on their behavior; not what product or service the credit union thinks is next.
6. **Unified Login:** If your customers need to have more than one login, then digital may never provide the connected experience. Asking them to create different user names and passwords every time they do something new with your financial institution makes it difficult to connect their experiences. If a customer has online banking then using that same login to apply for any loan, open an account or create service request, check loan status, etc. is paramount.
7. **Connected applications.** The application process should provide online decisions in seconds. Customers must have the ability to upload documents via a mobile device, log in and see where they are in an application process, and have intelligent next-best offers based on data pulled from the credit report during the application process. Just because they are applying for one product doesn't mean multiple suggestions cannot be proposed. If you're paying for a credit report, get the most out of it.
8. **Automating journeys, leveraging website actions and transactional behavior.** Journeys are more than emails; they include a variety of channels and can be completely automated. Journeys can be for marketing purposes like onboarding or retention. They can also be useful in application processes, and leveraging your content to help customers that are early in the buying process researching, or even credit building journeys to help when you deny a loan or providing guidance during fraud.
9. **Allow customers to submit service requests online.** Submitting service requests through chatbots or directly on account management pages is important. Having the ability to login and see all service requests, the status of all requests, and to communicate directly with employees regarding their service requests is necessary.
10. **Have a central location where employees can see the entire customer relationship.** In the engagement layer, employees see the customers' entire relationship. Not just core-related information, but marketing offers received, how many times they clicked on those offers, what they visited on your website, their financial goals and aspirations, open and closed accounts, application statuses, which service requests are active and the status, chats, phone calls, etc.; everything about the customer in one place.

Digital transformation is term we have all heard of and think we have an idea of what it means. But I wonder, are we just being brainwashed by vendors trying to promote an idea to sell more products or is digital transformation something we really should be doing? There's no doubt that the financial services industry has created some issues over the years with its legacy and disconnected systems; however, is digital transformation (DX) the answer?

Lisa Nicholas is president of Digital Banking Services (DBS), a CUSO owned and operated under Credit Union of Texas, headquartered in Austin, Texas. She specializes in marketing for the financial services industry with a focus on developing and executing marketing and digital growth plans for multi-million dollar companies.

There's Nothing Artificial about AI's Potential

By Larry Pruss, senior vice president at Strategic Resource Management

Recently, SRM identified the use of artificial intelligence (AI) as a trend that would have a significant impact on the financial services industry in 2019. Narrowly defined AI is the ability for machines to use complex algorithms to interact and learn to do tasks previously performed by humans.

However, often for simplicity, AI is used to describe a broad range of automation technologies including robotics, imaging, voice recognition, and machine learning. To avoid a clutter of acronyms and repetition, this broader definition is the one that will be used in this posting.

No matter the definition preferred, the rise of the machines is already making a favorable impact on productivity, efficiency and the bottom line of many banks and credit unions.

Potential for $1 Trillion in Savings
Banks and credit unions of all sizes are already using elements of AI to gain significant benefits both in customer service interactions and back-office processes. In fact, industry experts estimate that financial institutions will save a trillion dollars over the next few years by leveraging AI to optimize existing tasks, with nearly half of these savings coming from efficiencies established in customer-facing areas of the business.

With the transition from brick-and-mortar to digital banking well underway, financial institutions are turning to AI to offer customer-friendly features like chatbots, Voice Response Units (VRUs) and virtual assistants, making it easier and more convenient for account holders to conduct transactions on-the-go.

This increased level of digital engagement is also being used to respond in real time to customers' questions and requests, or even to suggest new products, features and services. Bank of America, Wells Fargo, and JP Morgan Chase already have debuted virtual assistant or chatbot technology to communicate more effectively with their customers or employees.

Enlisting the Power of an Intuitive "Empathy Engine"
Diverting basic customer inquiries from call centers to automated channels like chatbots or VRUs is just the beginning to providing exceptional, intuitive customer service through AI. Imagine if a virtual assistant could infer a customer's mood from his or her tone of voice or could sense frustration based on the person's choice of words. An automated platform could tailor its responses accordingly, even determining when it's appropriate to transfer an account holder to a "live" customer service rep.

Equally important is the potential for such a platform to refine its intelligence based on collective experience, eventually improving its ability to respond to verbal and non-verbal cues. Capabilities like these are already being tested by FinTech companies like BOND.AI (in partnership with bank service provider FIS).

Enlisting the Power of an Intuitive “Empathy Engine”
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Breakthroughs in the Back Office
Additional opportunities for gains from the application of AI reside in the back office, where firms are successfully applying AI to monitor compliance, manage risk and prevent fraud, allowing skilled staff to focus their time on revenue-generating initiatives instead. Card fraud, in particular, is an ongoing challenge complicated by the continuing shift toward e-commerce and remote payments. Through AI, banks are improving their card authentication processes, identifying suspicious patterns of behavior more quickly, and detecting fraudulent activities as they happen.

These are just a few of the ways that financial institutions around the globe are utilizing, and benefitting from, AI. With all of potential applications, it is important to remember that there are thousands of yet unexplored opportunities, and potential downsides, of the technology to consider in the near future.

Larry Pruss is senior vice president of SRM (Strategic Resource Management), an independent advisory firm for financial institutions. SRM has served as a trusted advisor to more than 700 financial institutions to lower costs, enhance revenues, automate processes and provide strategic consulting in areas such as payments, digital banking, core processing and operational cost control.

Regulatory "Relief" Fails to Reduce Regulatory Burden

By Pam Perdue, chief regulatory officer, Continuity

Financial institutions faced the greatest number of regulatory changes on record in 2018. This may come as a surprise, given that promised regulatory relief was delivered in the form of Senate Bill 2155. And while the bill did deliver long-term relief from selected regulatory obligations, it didn't change the short-term reality for bankers: every change, no matter how small nor how favorable, triggers strategic and operational changes inside financial institutions. Even something as simple as a seemingly minor wording change can require updates to policies, procedures, training protocols, software systems and monitoring and auditing routines. The tactical effort invoked by change is the real burden for those on the front lines of compliance management. This means that in 2019 and beyond, financial institutions must move beyond the headlines to understand how they are affected by change, and what types of regulatory change and compliance management systems are entering the marketplace to modernize traditional approaches.

More Volume Means More Confusion

By the numbers, the 265 regulatory pronouncements issued in 2018 represented an 18% increase in volume over the year before. These changes spurred a 40% increase in the number of adjustments that had to be made to operating controls inside banks, credit unions and mortgage companies. Not surprisingly, in our own Regulatory Operations Center ®, we saw a 32% increase during 2018 in the number of compliance questions we fielded from our clients: a whopping 3,270 instances of compliance confusion were resolved by our team of experts. To put it in perspective, that's a steady stream of one question every half hour during all 8 hours of each of the 249 working days of the calendar year.

Question volumes reveal another twist in 2018's sordid tale, namely, the confusion surrounding relaxed requirements. When Congress says you don't "have to" do something anymore, or that you are "permitted" to stop…that isn't exactly the same as ordering a halt. And Congress enacting the change doesn't automatically update the regulatory agency's regulations or examination frameworks. Deciding whether to continue what you're already doing, or stop doing that thing, becomes an operational decision versus a regulatory one. So how does one resolve the conflicting information between what the legislature has put forward, and the regulations that haven't yet been updated to match the newly-relaxed standard? This temporary mismatch between the law, the regulation and the examination standards left risk and compliance officers scrambling to give relevant, actionable guidance to their organizations.

Last but certainly not least, the temporary government shutdown at the end of the year and continuing into January left key data submissions like call reports unprocessed by the FDIC, leaving analysts to rely on dated third quarter numbers as they prepared reports and recaps of the year in review. For instance, the Banking Compliance IndexTM, which measures regulatory cost impacts, had to use Q3 2018 salary data to calculate compliance costs for the industry, and left its publishers with an outstanding task to recalculate and republish the updated figures when they finally become available.

New Enforcement Angles Escalate Uncertainty

2018 brought a troubling new trend to enforcement, as actions against individual directors and officers of financial institutions were on the rise. On the surface, a lower number of enforcement actions led to a cooling in the enforcement climate for the first time in more than 12 months. But one data point hidden inside those lower numbers was

was ominous: more actions were being taken against individuals, even when their institutions were not criticized. Fines, sometimes as high as six figures, punished officers for improper supervision of employees and failure to exercise appropriate oversight of a multitude of business functions from lending to information security. This modified enforcement posture is expected to persist in 2019, sparking concerns among executives about whether their compliance management systems are sufficient to prevent negative outcomes for their institutions and protect them from being singled out for individual criticism.

Technology Solutions Curtail Overspending

The increased volumes in the dynamic high-stakes environment of regulatory compliance continue to drive new behaviors, including an increasing adoption of more modern technology solutions to address compliance management. "Compliance management systems," or CMS, encompass a broad range of options, from transactional technology to point solutions that solve a singular compliance problem, to broader governance and risk solutions that address enterprise level concerns. An emerging domain in CMS remains the ability to manage compliance burden via an integrated approach to regulatory change management and the ensuring changes to an institution's controls environment that are triggered when rule changes occur. This holistic handling of compliance activity can dramatically reduce the administrative overhead that continues to plague even large and sophisticated institutions. Most financial institutions still rely too heavily on human effort and too little on technology adoption, resulting in inconsistent outcomes flowing from duplicative or redundant business processes.

Looking Forward

The changing environment demands new skill sets from risk and compliance officers, who are increasingly called upon to demonstrate proficiency in data literacy, business intelligence and technology implementation and integration. The domain changes now make box-checkers or grammar-sticklers less appealing hires, and even those with MBAs and JDs can easily find themselves falling behind their more tech-savvy peers. In the years to come, those risk and compliance professionals who understand how to leverage and rely upon regulatory technology and business intelligence tools will command more visible leadership roles and enjoy the higher salaries commensurate with these interdisciplinary approaches.

Review of the regulatory context since the 1970s reveals that the regulatory environment, like the economy at large, has behaved in cycles of expansion and contraction. Regulatory frameworks become stricter, then later they loosen. After a while, the pendulum swings again toward more regulation. This cycle has not yet seemed much affected by any particular change in politicians nor merely by turning the pages on a calendar. Accepting this ebb and flow as a normal operating condition requires financial institutions to evolve accordingly, toward streamlining and standardizing their compliance management systems in ways that can respond smartly and efficiently to an environment where the only real constant is change.

Pam Perdue is executive vice president and chief regulatory officer of [Continuity](), a leading provider of automated compliance management technology for financial institutions. Perdue has more than 25 years of experience as a regulatory expert, serving in roles such as chief compliance officer, educator and consultant for regional and national banking organizations, and as a senior examiner with the Federal Reserve.

Top Ten Trends Impacting Bank Technology for 2019

By Jimmy Sawyers, chairman & co-founder at Sawyers & Jacobs LLC

"Somewhere slightly before or after the close of our second decade, we reach a momentous milestone – childhood's end. We have left a safe place and can't go home again. We have moved into a world where life isn't fair, where life is rarely what it should be." --- Judith Viorst

In their book, "The End-Of-Decade Effect," Hal Hershfield and Adam Alter noted that when people face the end of a personal decade, "they feel older, search for more meaning, and act out in productive or counter-productive ways." As we reach the close of our second decade of this century, many technologies and tech companies, regardless of age, face the same milestone we do as 19-year olds…they are maturing to the point where they must stand on their own as self-funding and independent entities, high performers in a meritocracy where there is true demand for their products and services, and success is earned and not given.

We often forget that innovation and consumer adoption of new technology can take time. Rare is the overnight success. Even rarer is the technology that lives more than one decade. Businesses must have staying power…more eternal flame than Roman candle. Reflecting on the past two decades and looking ahead to 2019, I offer the following predictions for bankers looking to blaze new trails:

time in more than 12 months. But one data point hidden inside those lower numbers was ominous: more actions were being taken against individuals, even when their institutions were not criticized. Fines, sometimes as high as six figures, punished officers for improper supervision of employees and failure to exercise appropriate oversight of a multitude of business functions from lending to information security. This modified enforcement posture is expected to persist in 2019, sparking concerns among executives about whether their compliance management systems are sufficient to prevent negative outcomes for their institutions and protect them from being singled out for individual criticism.

Prediction #1: Apple Begins a Slow Decline as Their Decade of Dominance Ends

Apple has lost its mojo, plain and simple. Any company that depends largely on the sales of one device (i.e., iPhone) leads a fragile existence. Apple's amazing run is over. Wipe up the coffee you just spit across the room upon reading this prediction and consider the following indicators.

Long touted as a secure platform, Apple began 2019 with an ad on the Las Vegas strip that boasted, "what happens on your iPhone stays on your iPhone. Two weeks later, an Arizona 14-year old discovered the FaceTime bug that allowed people to eavesdrop via the video chatting software, sending Apple security teams scrambling to disable Group FaceTime and begin working on a fix.

Who talks on a smartphone? Certainly not your kids. The iPhone has also lost its luster as a vanity play. There are a number of smartphones that match or surpass its design. Personally, I'm opting for the Google Pixel 3 after over 10 years as a loyal iPhone user.

Apple stock closed October 3, 2018 at $232.07 and began a year-end plunge to close at $142.19 on January 3, 2019, an over 38% decline.

Apple Pay didn't catch on as well as many of us thought it would. According to pymnts.com, since October 2015, the percentage of smartphone users who have Apple Pay only used it between 1.8% to 3.0% of the time when making a purchase in a store that accepted Apple Pay. Such weak usage does not bode well for Apple. Conversely, the Starbuck's app feature, Mobile Order and Pay, accounted for 12% of Starbuck's transactions. Starbucks touts that mobile payments now account for 30% of its transactions and continues to increase each quarter (Source: GeekWire). Starbucks continues to outpace Apple Pay in number of U.S. in-store mobile payment users.

You really should stop torturing your branch personnel to open new accounts using an iPad. Give them a Microsoft SurfacePro so they can do real work and be truly productive. iPads are excellent for watching Netflix; not so great for banking. In late 2018, Apple announced that it will no longer provide unit-sales data for its iPhone, iPad, and Mac segments, a development that has spooked some investors and could foreshadow declining sales. Since peaking in 1Q14, iPad sales have been on a steady decline for years with the occasional holiday bump.

Many, including me, have found the Apple Watch a heavy, hot, value-lacking, battery-draining hunk of wristwear we can do without. Apple Watch sales remain a mystery as, you guessed it, Apple does not provide unit sales numbers.

Apple iTunes, or as I referred to this app for many years as a father of three music-loving children…going bankrupt 99 cents at a time…has been disrupted by many new players, including Spotify and Amazon Prime Music in the Sawyers' household.

As Steve Jobs once said, "Well, Apple invented the PC as we know it, and then it invented the graphical user interface as we know it eight years later (with the introduction of the Mac). But then, the company had a decade in which it took a nap." With Jobs' maniacal genius gone, expect Apple to nap once again.

If you think the demise of Apple is far-fetched, consider that RIM BlackBerry was number one on Fortune's 2009 list of fast-growing companies.

Challenge Question: Does your bank have any tech providers that are on the decline?

Prediction #2: The Disruptors Get Disrupted as Fintechs Learn the Art of the Pivot

Ten years ago my Flip Camcorder was awesome but was disrupted almost overnight by improved video recording functions on smartphones. Pure Digital Technologies, one of the fastest growing companies in Silicon Valley, from 2004-2009, was gone in an instant. We will see the same for many fintechs that have now had four or five years to prove their worth.

Fintechs that have failed to create a market for their applications and have been unsuccessfully wooing large banks will turn to their second choice of a date to the prom…community banks. Smart bankers will put fintechs through the wringer of due diligence and will not sign on as second-fiddle in this fintech band without some reasonable assurance that the relationship is mutually beneficial. Parasitic fintechs will be exposed and sent packing. These companies must still have a market for their applications and the leadership to succeed in a crowded market of fintechs and a shrinking market of banks.

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The golden fintechs are the ones that make the least noise and might be harder for bankers to locate without a guide. These startups have solid business plans, innovative solutions, and fertile markets. Expect savvy bankers to strike out and "mine" for these fintechs who offer true value and friendly, collaborative disruption.

Challenge Question: Has your bank been contacted by former fintech flops who are now dusting off their pitch and courting community bankers?

Prediction #3: The Outsourced/In-House Hybrid Takes Hold
The myth that banks must be 100% outsourced or 100% in-house will be debunked in 2019. As some banks have now had a few years (plus invoices and performance) to measure the benefits of outsourcing arrangements, some are learning that outsourcing is not, and should not be, an all-or-none proposition.

Almost every community bank has been outsourced in terms of core banking system programming for decades. A Fiserv Premier bank outsourced its programming to Lincoln, Nebraska. A Jack Henry Silverlake bank outsourced its programming to Monett, Missouri, and so on. That is true outsourcing, transferring the expense of highly paid, bank-employed programmers to a central provider with specialized skill sets.

What most refer to as "outsourcing" today is simply moving the core hardware platform to a different physical space at the data center of the core provider. The core banking system outsourcing trend will reverse as bankers realize that the core hardware platform is just another server. Where it is physically located does not significantly change the labor requirements of running the software applications or mitigate the risk of a disaster taking down the system. If the power is off and/or the bank's network is down, the core is down also, regardless of an in-house or outsourced environment. Nightly updates are quick events thanks to the processing power of today's systems.

Still, intelligent bankers understand that some applications are better distributed via the cloud (e.g., mobile banking and email) while others are better housed locally where network performance, employee productivity, and faster customer service are required.

Bankers will reinvest record earnings into their banks' infrastructures as new operations centers are built to provide jobs and opportunities to the people of the communities these banks serve.

Expect bankers to step back and review each component of their tech environments to determine which is best managed in-house. Outsourcing is not always a competitive advantage. Homogenization of services is not a differentiator. Homogenization is good for milk. Banks? Not so much.

Challenge Question: Has your bank done its due diligence, application by application, and business function by business function, to determine the best environment for each?

Prediction #4: Network Infrastructures Get Re-Designed for 2020
Many banks have networks designed in the 1990s that are not taking advantage of recent developments in technology. Advances in network administration tools, lower cost computers, cheaper bandwidth, and inexpensive disk space have awakened bankers to the fact that an outsourced network is not necessarily a higher-performing or less costly network.

The lie of the thin-client environment benefits disguised as the promise of better security and less administration will be exposed. Frustrated bank employees, especially power users, will demand full PCs and the local processing power they bring. Many bankers, sold on outsourcing the bank's network to a Managed Services Provider (MSP), have now learned that this model is typically better for the MSP than the bank. Employee productivity, customer service responsiveness, and network performance have suffered at banks that were sold on ceding their most valuable computing tools to the mother ship of an outside organization that is often working with more non-banks than banks.

Facing Windows 7 End-of-Life, demands from mobile users, and the quest for self-sufficiency in disaster recovery, bankers will call for a fresh look at aging network infrastructures and will require more hustle from their IT staff.

The productivity of the bank's entire workforce and the customer experience will trump a few less steps by the bank's network administrator.

Challenge Question: Is your network performing at optimal levels or does it need a serious overhaul and re-design?

Prediction #5: The Open Banking Invasion is Repelled in the U.S.
Open banking is a solution without a market need. Consumers are not demanding open banking nor is this a concept that will improve bank profitability or the customer experience, in my opinion. Open banking is wanted by those who don't have consumer relationships and don't want to work for them as the bankers who have them did.

Banking relationships are based on trust. In an era of data breaches and consumer laws regarding privacy, open banking seems to fly in the face of what is wanted and required. The authorized major credit bureaus have a hard-enough time securing customers' sensitive information (see Equifax breach). Be aware of initiatives like PSD2 (Payment Services Directive) being pushed by the European Union.

Further, I have always contended that the average consumer is not that concerned with tracking his or her spending down to the penny. Name a successful PFM other than Mint. If you are reading this, you…like me…probably have the most anal-retentive friends when it comes to personal finance…the bankers, accountants, and technologists of the world. Ask them if they use PFMs. I predict you will get answers about Excel spreadsheets, brokerage firm reports, or, "I work at the bank. I see my spending on my computer screen." If one does use a PFM, it's most likely Quicken or Mint, both Intuit products. PFMs are the Teavanas of the tech world. Starbucks closed all 379 of its Teavana stores in 2018.

Which is better for the consumer? Competition or monopolistic consolidation? "The United Bank of Intuit" or "First National Bank of Amazon" might not be the best thing for consumer choice or healthy competition. The potential for a "Peoples Bank of Alibaba (China)" should make American bankers tread cautiously.

The term "socially inclusive banking" smacks of socialism and borders on communism. The United States of America is not Europe. Bankers, the trusted stewards of their customers' data, would be well served to remember that when approached by the open banking crowd wanting free access to hard-earned customer relationships and confidential information. Is Zelle the camel's nose under the tent and open banking in disguise, allowing a large bank consortium to mine customer transaction data? Time will tell.

Challenge Question: Does your bank view the concept of open banking as an opportunity or threat?

Prediction #6: Cybersecurity Preparedness Gets Re-Booted as Lessons are Learned and Window Dressing Falls
In the past decade, cybersecurity threats have come on fast, leaving bankers scrambling to shore up their defenses and mitigate the risk of a cybersecurity incident. In their haste, many bankers have created large but flimsy barricades that give the appearance of fortifications but are not effective when tested.

Further fueling the façade, executive management often deputizes IT staff to become overnight cybersecurity experts, an unrealistic expectation resulting in bank IT employees re-directed from helping employees and customers, and instead being paid to stare at screens with little education or experience on how to assimilate the flood of data and turn it into actionable, useful information to mitigate cybersecurity risk and to identify incidents-in-progress. This illusion of security comes crashing down when a sophisticated hack at 3:00 a.m. goes undetected and intruders remain on the network for months gathering intelligence that results in a major financial loss to the bank.

Smart bankers will remove this impossible task from their people and engage cybersecurity experts to assess their current state of cybersecurity preparedness and re-model the defenses to provide true security on a 24/7 basis, not just window dressing.

Challenge Question: Is your bank's cybersecurity preparedness an illusion of voluminous policies, excessive phishing testing, and flashy screens or a reality that is tested frequently by independent experts?

Prediction #7: Bankers Serve Up All-One-Can Eat Digital Services Buffets
Because of the evolution of digital services and the archaic pricing structures by many providers, some bankers ration digital services and spoon out the applications on an a' la carte basis to customers. It's time for an all-one-can-eat digital buffet. Bankers should push for one price for all services (e.g., mobile banking, P2P, PC banking, telephone banking, mobile deposit, bill pay) and finally let customers have a truly digital experience on the channel of their choice, anytime.

Digital marketing ramps up as bankers tell their stories and establish their brand, positioning the bank in the mind of the consumer using a multi-channel approach while realizing the new channels do not necessarily supplant, but instead complement, existing channels.

Challenge Question
What is your digital services strategy and is it realistic given your technology, people, and processes?

Prediction #8: Payments Industry Consolidation Shakes Up Traditional Approaches and Conventional Wisdom
In a shrinking market of banks, technology services providers realize that growth opportunities exist in markets that are consumer-driven not bank-driven, hence the recent acquisitions (see Fiserv's acquisitions of U.S. Bank's Elan debit card processing division and First Data). By riding the wave of increasing digital payments, these providers can continue their growth. Core providers will flex their considerable muscle in terms of capital and continue to acquire payments providers and those who are improving the customer experience in payments, making 2019 a watershed year in terms of payments innovations.

Expect Zelle to fail to gain critical mass, especially with community banks. The large majority of the so-called "participating banks" and "partners" noted on the Zelle website will continue to sit on the sidelines and will remain as "coming soon" just as they are now when one clicks the bank name. Feel free to check me on this. Currently, of the 182 "partner" banks listed on the Zelle site, 115 are not truly offering the service and are "coming soon." In my opinion, it's a misleading practice to list these banks when 63% do not yet offer the service. My bank has been "coming soon" for over two years.

Fraud concerns and customer service woes will further hamstring Zelle adoption. Regardless of the promotional hype from core providers and the mainstream banking media, one must listen to the reviews of the consumer as noted by the current 2.9 Zelle app rating on Google Play. An app rating below 4.0 is troublesome. An app rating below 3.0 is the walking dead. Bankers who do true due diligence will decide to push their core and debit card processors to offer an alternative P2P payment solution that can travel the ACH (fast and free) or the debit card (faster with a fee) rails.

As predicted last year (Cryptocurrency Mania Gives Way to Sobering Reality), Bitcoin plummeted from $19,870.62 in December 2017 to $3,169.53 one year later. In 2019, some cryptocurrency exchanges will be exposed as high-tech Ponzi schemes, further deteriorating what little trust is left in this volatile asset class which is not a currency in my book. When Amazon accepts Bitcoin, I might change my mind.

Challenge Question: What payment solutions will your bank implement in 2019 and has the proper, documented due diligence been performed on the providers?

Prediction #9: Consumers Push Back on Data Sharing
Still stinging from the Facebook-Cambridge Analytica data scandal that harvested personal data without consent, in 2019 consumers will fight back on data-sharing ventures, no matter how they are packaged and promoted. People now better understand the nuances of personal data protection and realize the most popular social media platforms exist primarily to make people click on ads not just to showcase one's cat videos.

Unfortunately, the average person is not necessarily a rational consumer. Some still give up confidential and personal information willingly on social media in manipulative tests or contests (e.g., the 10-year aging challenge which might be gathering data to train facial recognition algorithms) yet worry about a bank account number in an email. Newsflash! That account number is on the checks some of you still write and hand over to the cashier at the Piggly Wiggly.

These breaches of trust will harden a more skeptical public and make them more unwilling to trust data aggregators, including bankers' efforts to sell account aggregation applications. Account aggregation died in the early part of this century, was resurrected, and will surely die again in 2019.

Challenge Question: Is account aggregation part of your bank's tech strategy?

Prediction #10: Bankers Require Proof of Provider Performance
Bankers, inundated with marketing pitches from struggling providers trying to survive in a shrinking market, will require proof that the sales pitch lines up with provider performance.

Dubious consulting services concepts such as "Virtual ISOs" and "Virtual CIOs" are outed as the artificial sweeteners of the tech world, more marketing than substance and inferior to the real thing. Intelligent bankers will "coach up" their employees to handle these important roles.

Vendor management systems that require constant feeding but provide little value will be scrapped for more sophisticated and intelligent approaches. The average community bank has an easily manageable number of critical vendors. Any bank risk-rating every vendor in its accounts payable system (including banking schools, state associations, and charitable organizations) should stop this time-wasting practice and revisit its vendor management program to bring some sanity to this inefficient process. True vendor management will be recognized as more than dumping scanned contracts into a glorified tickler system. To properly assess and manage vendor risk, new models will emerge that offer practical and affordable approaches.

Cyber preparedness is not excessive phishing testing which has become a productivity killer in banks and an annoyance that should be applied judiciously and for the purpose of educating employees, not naming and shaming them.

Smart bankers require their IT people and consultants to show documentation of due diligence, not just talk or empty rhetoric. Banks' boards of directors will get more involved in such decisions as the strategic importance of such decisions is now realized. In a recent case, a misguided CEO, hired to help a troubled bank, inexplicably signed a 10-year contract with the bank's core processor, effectively creating a poison pill in the form of contractual liquidated damages for this bank that was hoping to get in shape to sell.

Challenge Question: Is your vendor management program a waste of time or an important monitor of the bank's critical technology services provider relationships?

Summary

An old Chinese proverb by Guan Zhong advises, "The best investment for one year is to grow grains; the best investment for ten years is to grow trees; the best investment for a lifetime is to educate people. What you gain from one year's growth will be grains; what you gain from ten years' growth will be trees; what you gain from a hundred years' growth will be people." For your bank to succeed in the future, focus inward on your unique competitive advantages as you educate and develop your people, update business processes to be more customer-friendly, and deploy technology strategically to support the risk-reward proposition that is the foundation of banking.

May your 2019 be full of new adventures that bring wisdom and shape your bank for an age of discovery and monumental accomplishment.

Jimmy Sawyers is Co-Founder and Chairman of Sawyers & Jacobs LLC, and is one of the most independent and informed voices in the industry. Leaders in Innovation-Risk Management-Cybersecurity-Technology through the firm's four brands. RedTorch Consulting, RedTail Risk Management, RedWolf Cybersecurity and RedCape Tech Support. For more information, visit www.sawyersjacobs.com, call 901.853.1000, or email jsawyers@sawyersjacobs.com.

2019 – What the Future Holds for the Banking Industry

By Cindy Taylor, Publisher, FintekNews

As publisher of FintekNews, we regularly report on technology trends that affect bankers, wealth managers, traders and other members of the financial community worldwide. It's safe to say that the pace of innovation over the past several years has been dizzying on the fintech front – so much so that it can be overwhelming for even us to keep pace. That said, we definitely see several trends moving forward that the banking industry would be remiss to not consider as we move into 2019 and beyond.

1. **Acceleration of online only banks.** We have reported extensively on the British digital bank Revolut, which according to Wikipedia offers "a pre-paid debit card (MasterCard or VISA), currency exchange, cryptocurrency exchange Bitcoin (BTC), Ethereum (ETH), Litecoin (LTC), Bitcoin Cash (BCH), Ripple (XRP) and peer-to-peer payments". The firm has been wildly successful in the UK and beyond, and has plans to expand into the U.S. While that has not yet happened, U.S. bankers must be aware that, despite America's draconian regulatory environment, offshore digital-only banks are looking to bring their wares to the U.S. Eventually, they will find a way, and the industry needs to be ready for this new realm of competition
2. **Crypto keeps coming.** Bankers don't have a love/hate relationship with crypto – it's mostly a hate relationship – and yet millennials and others are adapting and investing in crypto more and more every day. Bankers need to work with U.S. legislators & regulators to find a path forward for encompassing crypto in their business models. Laughing while you read this? We'll see who laughs last, but bankers best be aware the crypto movement is not going away.
3. **Wealth Management will keep evolving.** If you are counting on the wealth management sector to continue to contribute to top line revenue growth for your bank without a defined digital strategy moving forward, you are going to be left in the dust. Robos in all shapes and forms continue to pop-up and other wealth management firms are aggressively building out hybrid robo/advisor models as millennials and boomers, too, look to have more online visibility around their long term investment planning. We believe the most powerful model for mid- to high-net worth individuals is the hybrid model and yet younger investors are openly embracing such innovators as Robinhood, Worthy and others that have small or no minimum investment parameters. The hybrid model is the path forward to current customer bases – the digital model is the path forward to new, younger customer bases. Your bank should have a strategy – or partnerships – in place for both.
4. **Robots!** Yes, Softbank continues to roll out those cute little "Pepper" robots, and a handful of Silicon Valley banks have already put them to use in their lobbies. Think this is just a fad? While the U.S. may be slower in adoption, as of 2017, there were already 10,000 Pepper robots worldwide in both professional settings and in Japanese family homes. According to the website of a sales and support organization for the Asian robotics firm, "Pepper responds to your voice, facial expressions, body language, and words. The latest version is programmed to do 28 jobs. It will soon do more as SoftBank and IBM are busily working to adapt Watson's artificial intelligence to Pepper". So – you may not have a Pepper in any of your branch lobbies yet – but you just may in the next 2-5 years.

There are many more trends we could discuss here – open banking, increased use of APIs and much more. However, the bottom line takeaway is that American bankers MUST keep abreast of technology trends affecting financial markets worldwide.

The old world legacy banking systems will have to fade away in order to make room for rapid implementation of technologies that customers can get from other more nimble technology-based banking and wealth management vendors moving forward. The future is indeed bright for the American banking industry, though – if you're fintech-savvy.

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Cindy Taylor, founder of Fintegration & publisher of FintekNews, is a 20 year digital & print media executive with extensive sales and marketing experience in diverse luxury, consumer and B2B markets. Her background includes new media product development, sales management of domestic and international sales teams, brand-building, event management, new media and public relations. She also consults with several hedge funds & RIAs and is considered one of the country's foremost authorities on financial media and marketing.

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ABOUT

Our agency has worked in the financial industry for more than 38 years and served hundreds of companies that provide a wide range of products and services in the banking, payments, mortgage, credit union and related markets. According to the Atlanta Business Chronicle, William Mills Agency is the 4th largest independent Atlanta public relations firm, but more importantly, the largest provider of PR and Marketing Services for companies that market to the financial industry.