2018 BANKERS AS BUYERS

A collection of research, observations and articles regarding technology solutions and services that U.S. bankers will buy in 2018 and the changing financial industry landscape.

WILLIAM MILLS AGENCY

Q1 2018

Dear readers,

Our mission is to separate the hype from reality and to help clarify what technologies and market forces will have a substantial impact on our banking system. While we are forward-looking with this report, our focus is really on the next 1-3 years.

As of our issue date, Bitcoin made an amazing run up to nearly $20,000, went down to $9,199 and is now back up to $11,000. Hype impacts the demand of Bitcoin, but Bitcoin's lasting legacy to banking will likely be its underlying distributed ledger technology. Today, CUNA and Mountain West Credit Union Association are collaborating on CU Ledger, a research-to-action initiative that is investigating the viability of a private, permissioned distributed ledger (DLT) that can be used by credit unions.

Some of the major drivers of technology spending will remain constant from year-to-year, most notably, keeping up with and managing compliance; reducing risk from fraud; and shifting strategies for various delivery channels. I believe that four areas or concepts will prove critical over time:

1. ***War for talent*** – Can we compete for technical talent with the "captains of industry," i.e., Google, Amazon and Tesla? More importantly, with the industry taking a reputational hit within the last 10 years, do people even WANT to work in banking and what can we do to encourage it?
2. ***Shift in investment from improving the front-end (or experience) for consumers to improving the back-end or back office for employees*** – Why not focus on making better bankers, better products, better decisions or how technology works for employees? Hint, if you still have "green screens," you might have a problem.
3. ***Haves and Have-Nots*** – Large financial institutions have people, budget and access to resources, which give them an edge on innovation. Small- to mid-sized companies will have to rely more on key vendor relationships to stay informed and competitive.

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4. ***2018 could be the year of the service professional*** – Building on point #3, strategy consultants, advisory firms, design/development companies, IT consultants/staffing, accounting firms, legal professionals and more represent the army of professionals who help financial companies with change, opportunity and managing risk. As we enter a period of rapid change, companies of all sizes will depend more on people outside their organizations to provide complementary services to their own teams.

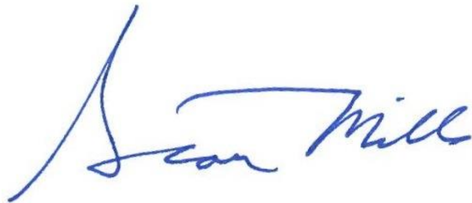
Bankers As Buyers relies on interviewing a wide variety of people we trust, published research and contributed articles. This report is greatly enhanced by the contributions of:

Accenture – Tommy Marshall
Actura Technologies, Inc. – Mike Kelly
ACI Worldwide – Mark Ranta
Aite Group – Julie Conroy
American Banker
American Bankers Association (ABA)/ABA Banking Journal
Association for Financial Professionals (AFP)
BAI – Karl Dahlgren
Baker Hill – John Deignan
BankLabs – Matt Johnner
Bankruption author/Kasasa – John Waupsh
Capgemini
CBW Bank – Suresh Ramamurthi
Celent – Bob Meara
Continuity – Mike Nicastro
Cornerstone Advisors – Ron Shevlin
Crone Consulting – Richard Crone & Heidi Liebenguth
CSI – Kedran Whitten
D3 – Mark Vipond
DirectorCorps (Bank Director) – Al Dominick
Equifax – Hrishi Talwar
Entersekt – Gerhard Oosthuizen
Federal Reserve
FICO
First Annapolis Consulting, Inc.
Futurion – James Van Dyke
Kasasa – Keith Brannan
Jack Henry & Associates – David Foss, Stacey Zengel
J.D. Power
Malauzai Software – Robb Gaynor
McKinsey & Company

NTT DATA Services
Obloco – Victor Yefremov
Ovum – David Bannister
Paragon – Mark Medlin
Payrailz – Fran Duggan
Porter Keadle Moore (PKM) – Phil Moore
RLR Management Consulting – Ruth Razook
Sawyers & Jacobs, LLC – Jimmy Sawyers
Strategic Resource Management (SRM) – Brad Downs
TTV Capital – Sean Banks
The Financial Brand
VSoft – Murthy Veeraghanta
Zenmonics – Chris Siemasko
Zoot Enterprises – Eric Hathaway

This report is free; however, we respectfully ask that you share the link to download the report (and not your PDF), so we can have a better idea of who is reading it. Enjoy.

Best regards,



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I. Introduction

Banks are entering 2018 in better financial shape than in many years. After years of being stagnant, interest rates are on the rise, helping financial institutions with net interest margins. Most economists are forecasting another two to three interest rate increases this year, though new leadership at the Federal Reserve could mean a slightly slower pace.

While rising interest rates squeeze the affordability of homes, mortgage rates were still near historical lows and some lenders were becoming slightly more aggressive in making non-qualified mortgage loans. Home builders were reporting strong results, with housing starts up 5.3% in November over the revised October rate, to a seasonally adjusted annual pace of 930,000. On a year-to-year basis, single-family housing starts were up by a strong 13% for the first 11 months of the year.

With a strong economy expected to aid demand for mortgage originations and for other fixed-rate credit instruments, banks will be seeking deposits to fund those loans, says John Waupsh, chief innovation officer for Kasasa and author of *Bankruption: How Community Banking Can Survive Fintech.*

"When banks were trying to attract deposits 10 years ago, they would use signage and send out notices," said Waupsh. "That kind of marketing doesn't work today. Today it's all about digital marketing." So marketers need to send the right offers to the prospect's device of choice. To know the right offer for the right person at the right time, the marketer needs access to the right data and the right analysis of the data. So banks need data that is cleansed to remove errors and augmented by data from outside of the institution.

"If you fall back on what used to work, you're toast," Waupsh said. "It will be an important year for data-driven marketing technology."

With a healthy economy, banks are expected to focus their technology spending on mobile-related technologies, recognizing this is the way consumers want to bank. But even the nearly mobile-exclusive millennials want to have access to a branch for any business they can't conduct on the phone. However, there is no agreement on the technologies that will help financial institutions maximize the efficiencies of their brick-and-mortar networks.

As the cost of compliance and challenges from fraud continued to grow, so did challenges in attracting and keeping millennial workers and in developing boards of directors ready to meet the challenges of today's financial institution environment.

Though there's been discussion of relaxation of rules governing financial institutions, particularly for community banks, the experts we talked to have yet to see any evidence of that.

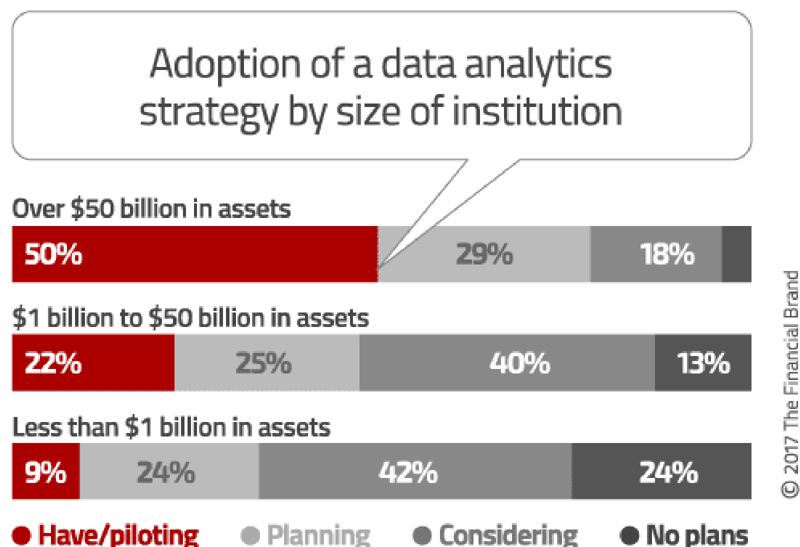
Fintech companies continue to appear on the scene, but some more seasoned ones have yet to show a profit and could fall by the wayside before too long.

II. Analytics

"The big question about analytics is how financial services firms can get access to ever larger data sets to enhance efficacy of the machine learning model," said Tommy Marshall, North American fintech lead at Accenture. "You need a lot of data for the machines to be trained properly. Not all of that data is necessarily in the financial institution, so they need to have a way to access all of the necessary data."

The ability to monetize that data will be critical for financial institutions in 2018, adds Sean Banks, partner with TTV Capital.

Artificial intelligence (AI) and machine learning are becoming integral elements of bank analytics used for fraud, risk management, customer service and advice, according to Ron Shevlin, director of research at Cornerstone Advisors. But AI, machine learning and other analytics all depend on good data and algorithm design.



Source: The Financial Brand

So far, advanced analytics has primarily been limited to the largest financial institutions, according to an article in *The Financial Brand*: “Half the banks with $50+ billion assets have already implemented advanced analytics, but less than 9% of institutions under $1 billion have done the same.”

Improved analytics are often associated with improving customer experiences, however, the average time to complete a large Customer Experience (CX) project is 21.5 months, says James Van Dyke, founder and CEO of Futurion. “If I produced a project only once every two years, I would be fired.”

The actual range for CX projects is anywhere from six months to five years from concept to innovation, according to Futurion research.

The most successful CX projects are those following an agile approach, with parameters for design and other factors shifting as the project develops, rather than the waterfall approach, with strategies, design, funding, etc., all set at the beginning, Van Dyke says.

Waterfall approaches fail, according to Van Dyke, because by the time they are completed, customer attitudes have changed, and other market factors have shifted. Therefore, it is better to start with a lean, agile environment, with further investment and design changes made after getting feedback on very lean, basic project pilots. Going this route actually saves time over trying to have everything designed in advance, according to Van Dyke.

To design the basics and for the advanced development of customer experience projects, Van Dyke recommends seeking input not only from customers, but also from staff from various departments. “You can find some of the most creative people in unexpected places – security, fraud operations…you have to think beyond where you would typically think you would find creative people.”

Van Dyke adds that large banks are ahead of smaller institutions in providing customers with good CX, and the gap between large and small institutions is widening.

Some financial institutions, like Bank of America and Ally Bank, are enhancing their CX efforts with chat boxes, Shevlin adds. Many have integrated the chat boxes into their core systems, and some have integrated them into their contact centers.

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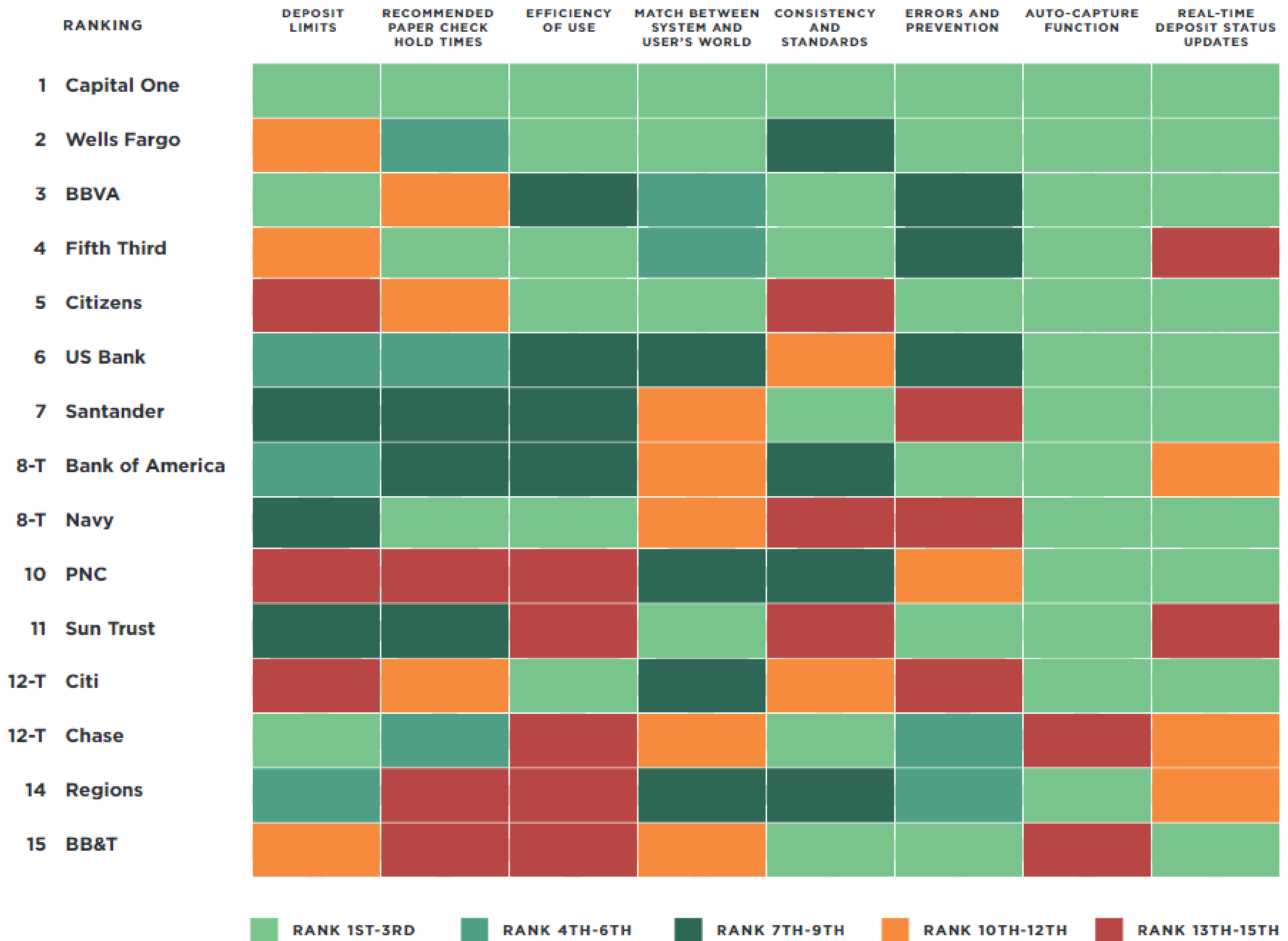
While they help automate some customer service issues, chat boxes are still for the most part in the early stages of development, according to Shevlin, “They’re not perfect, you still have to have humans.”



Source: Futurion

III. Mobile Developments

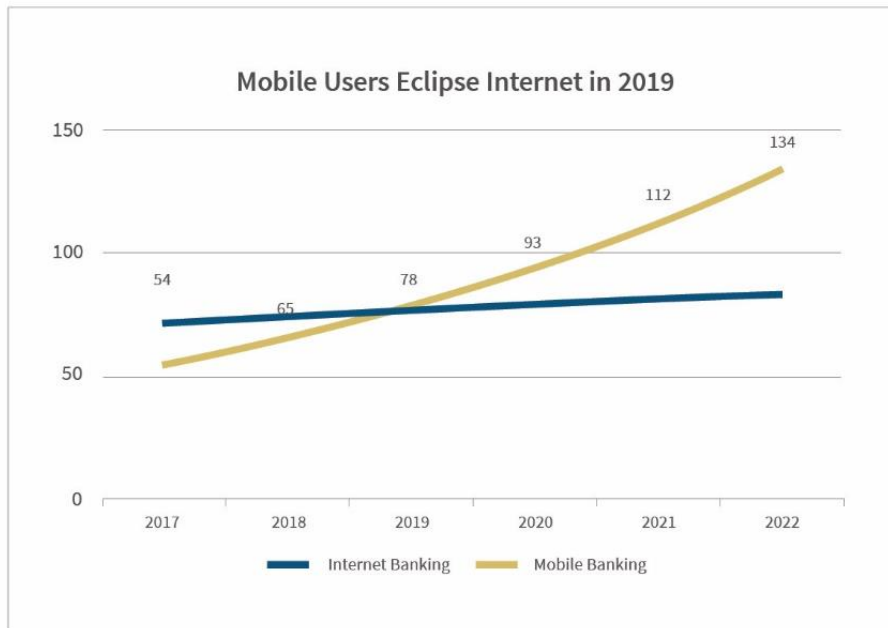
Mobile is the engine for financial institution growth and will be the focus of many of the bank technology investments in 2018.

Based on results in the 2017 NTT DATA Services study on mobile banking, consumers are using their mobile devices for 40% more financial transactions than they were three years ago.

In a late 2017 survey, Malauzai Software found:

- Internal transfers of money continue to be one of the top digital banking tasks, with the amount of the money transfers ranging from $162 to $3,100.
- Bill pay average value ranges from $1,100 for the best-in-class financial institution to $170 for the bottom bank.
- There is a wide range of check deposit values, largely dependent on the limits imposed by the financial institution.
- The iPhone is still the most popular device among digital bankers.
- There is a 65% correlation between how rich apps are and the engagement level of end users.

Other Malauzai research showed that mobile banking transactions will surpass Internet transactions in 2019.



Source: Malauzai

Van Dyke adds that customers who enjoy excellent customer experience with a financial institution's mobile capabilities tend to provide the bank with the greatest loyalty and volume of business, yet many banks still fall behind in mobile features that customers have come to expect, like auto capture, which automatically pulls key fields/information from documents such as driver's licenses and checks.

"Small banks are limited by what is provided by their core processors," Van Dyke adds.

Some third-party solutions can solve any shortcomings of core processor offerings, says TTV Capital's Banks. As an example, he points to a mobile shopping cart for bank products offered by Gro Solutions. The technology eases customer onboarding, taking much less time than the typical bank onboarding process and provides banks a quick way to sell the products and services they provide.

Another factor hurting financial institutions in maximizing their mobile business is some banks have different rules for mobile deposits, including size (amount) of checks accepted and availability of funds, than they do for branch deposits, a difference that can drive customers to competitors, according to Van Dyke. He adds that some financial institutions are changing from a mobile-first approach in some technology innovations to a mobile-only approach, with online as an afterthought.

"We see 2018 as the year of 'platformification,' with internet and mobile coming together," said Robb Gaynor, chief product officer for Malauzai Software. He added that everyone started with a point solution for mobile, then integrated internet.

Today, financial institutions buy a comprehensive solution that enables them to cut their spending on digital technology as much as 40% in addition to reducing complexity. Voice solutions will be part of the digital platform in a few years. But that would not happen if banks hadn't added business and internet first, said Gaynor, who expects conversational banking, with two-way interactions between digital assistants becoming commonplace.

Today, communications are internet-to-internet, mobile-to-mobile, digital assistant-to-digital assistant. In the future, all will be able to interconnect, Gaynor said, "It's the Star Trek effect."

IV. Application Program Interfaces (APIs)

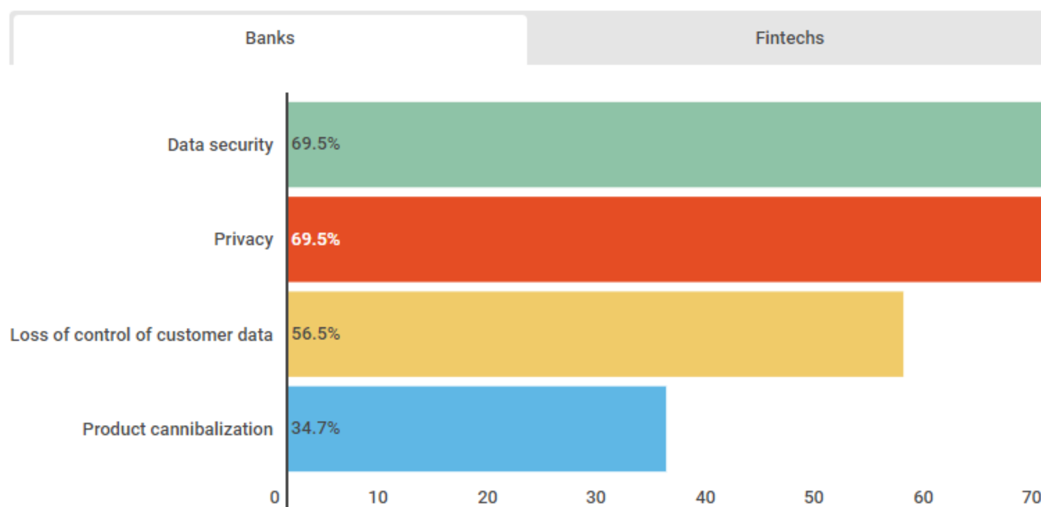
"The 'open' API will continue to be a very important topic for discussion in the coming year," Marshall says. "The PSD2 (Payments Services Directive II) regulations that started in Europe creates approaches that will continue to gain traction in the U.S. market."

Open APIs help banks offer capabilities, such as personal financial management, from fintech companies without the need to develop these capabilities themselves, so they are catching on with a growing number of financial institutions:

- Marshall expects other financial institutions to follow the lead of Citibank and Capital One, which opened up their APIs in the 2017.
- JPMorgan Chase and Wells Fargo have data sharing agreements with Intuit.
- By August, more than 2,400 developers had activated accounts on Citi's API Developer Hub and had created more than 250 applications, according to an *American Banker* article.
- In December, Capital One agreed to share its APIs with Clarity Money, enabling the bank's customers to benefit from Clarity Money's personal financial management tools, which are driven by machine learning, data science and artificial intelligence (AI).

"There has been a lot of experimentation in the last 12 months," said Marshall. "The most interesting uses [of open APIs] come from Europe. Now they're being copied and modified for use in the North American market."

Yet, according to a Capgemini, data security and privacy still raise a lot of red flags for banks thinking about opening an API platform. When Capgemini asked fintech startups for their concerns, their answers didn't really differ from those of the banks.



Source: Capgemini

Van Dyke adds that using open APIs can help smaller banks offer services not provided by their core vendors.

V. Channel Integration

Channel integration is still more a goal than a reality for financial institutions, though more are moving to single, consolidated digital platforms.

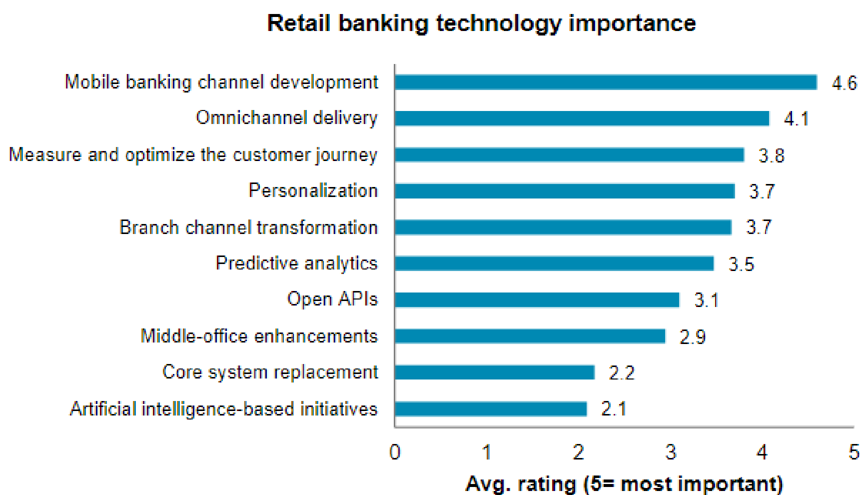
Mobile is strengthening its hold as the first choice for consumers, so channel integration for most financial institutions means making sure other channels integrate with mobile, not the other way around.

Spending priorities since 2010 have steadily shifted from physical to digital channels, Bob Meara, senior analyst at Celent points out. Digital engagement has surpassed self-service and assisted/full-service interactions, so Meara expects financial institutions to continue to invest in platform consolidation, though those investments are still in their early stages. Only half of the financial institutions that Celent surveyed had begun “substantive” platform consolidations, with only one in 10 executing a strategy.

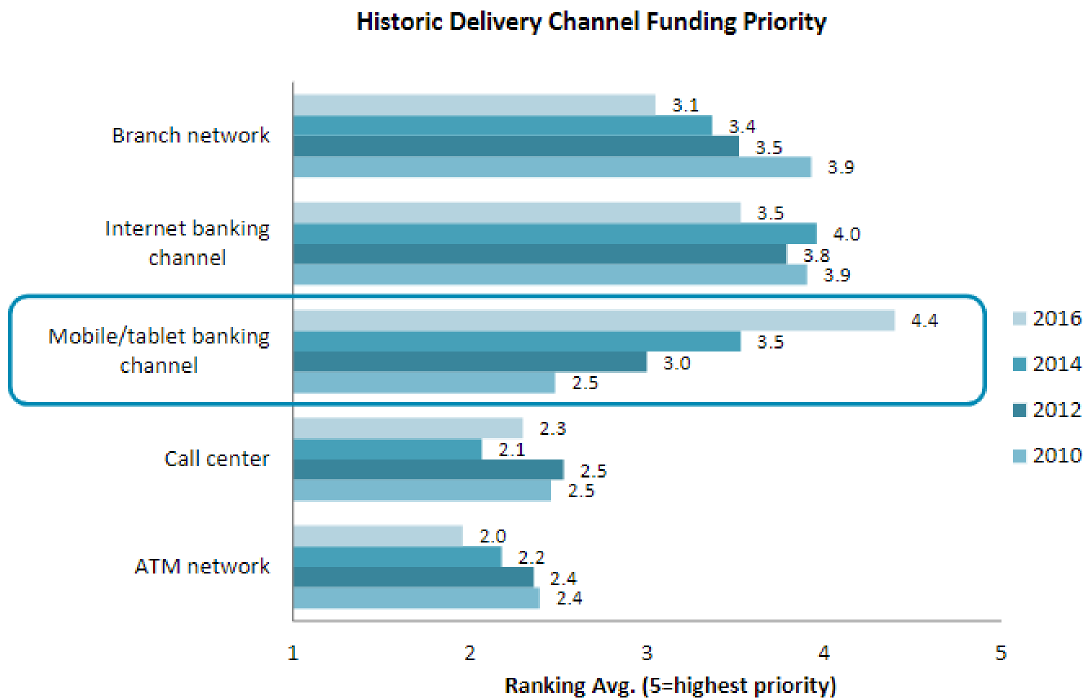
A comprehensive omni-channel approach is still elusive for many financial institutions. As Van Dyke pointed out earlier, part of the problem is different rules for transactions through different channels.

Meara points out that banks have historically organized around individual delivery channels, though this trend is starting to change.

Some financial institutions have placed all delivery channels under a single head, but still have separate market-owned delivery responsibilities; for example, marketing departments still owning results, but not managing channels.



Source: Celent



Source: Celent

VI. Talent Wars

A. Staff

Though the banking business is increasingly digital, and the total banking workforce continues to decline, there are gaps in many areas of the financial institution's personnel structure, from the director level on down.

There's little diversity on most boards, according to Mike Kelly, CEO of Actura Technologies. As a result, there's little diversity at the top executive levels as well.

"It's an open secret that financial institutions can't hire the right talent," said Kelly. Typically, financial institutions want new hires to stay in a certain area for three to five years, with little chance of advancement before that. Such a career path is of no interest to millennials who are changing jobs much more quickly than that.

In a late 2017 survey, CSI found that there were three major reasons millennials weren't interested in a banking career:

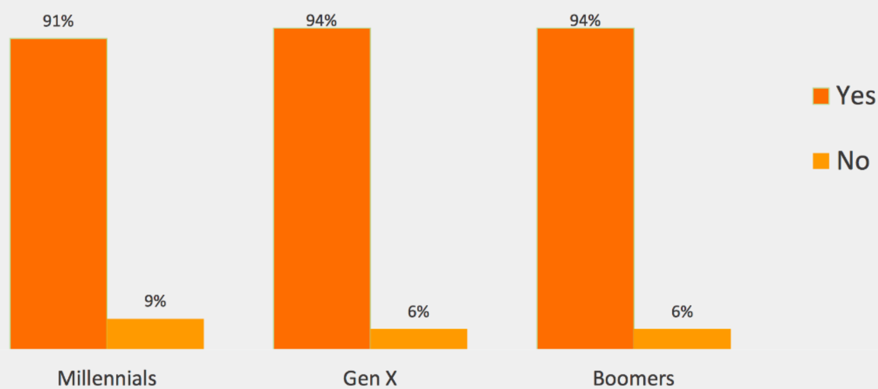
- They don't perceive the work to be interesting

- They perceive banking to be a low-pay industry
- They don't want to work with difficult customers

Additionally, millennials don't like the conservative dress most financial institutions require, nor "banker's hours," adds Kedran Whitten, CSI chief marketing officer.

While there are workplace concerns, especially for younger talent, the CSI study indicates that banks and credit unions still represent a "respectable career path." Therefore, the war for talent will primarily be for the employees with the right skills required by financial institutions in order to remain competitive.

Q: Do you think working in a bank or credit union is a respectable career path?



When it comes to perceptions, 91% of Millennials view working a at a bank or credit union as a respectable career.

Source: CSI

To solve the dilemma of recruiting millennials, Whitten recommends that financial institutions take a few different steps:

- Offer some flexibility in working hours. Rotate Saturday shifts so that workers have some full weekends off. Additionally, consider allowing employees to work remotely on occasion.
- Work with high school and college level advisors to establish strong internship programs. The programs should offer job rotations so that interns can have hands-on learning with the different types of positions available in a financial

institution. Most millennials have little idea what happens inside a financial institution because most of them conduct all of their financial transactions online.

Whitten also recommends examining what competitors are offering workers in terms of flex time and other benefits.

There is a significant need for data scientists in the next 24 months, but people with those skills are in strong demand in many industries, not just banking, Kelly says. “The overwhelming demand far outstrips the supply.” To attract the data scientists they need, banks may need to opt for contractor rather than employee relationships, Kelly says.

Financial institutions also need to provide training programs for people to move up from entry level positions through different levels of management, according to both Kelly and Whitten.

B. Directors

The hunt for talent is also a challenge at the board level as aging directors seek retirement.

“The whole challenge of succession is driving a lot of the merger conversations,” said Al Dominick, CEO of DirectorCorps, the holding company for *Bank Director* and FinXTech. “Many banks don’t have the right people.”

Directors should have compliance and cost control at top of mind as well as ongoing industry consolidation, according to Dominick. Directors should also be “the voice of reason” in working with fintech providers, he added.

As mergers and acquisitions continue, acquiring financial institutions need outside directors who can identify banks that are a good cultural fit. “If you’re not in a position to acquire, then the director should understand how to strategically position the institution to be acquired.”

Dominick recommends that banks look for the following characteristics in outside directors:

- Courage – The banking business may be unfamiliar, so an outside director may feel uncomfortable, at least initially.
- Curiosity – Outside directors won’t have intimate knowledge of the business, so they need to be willing to learn

- A hands-off approach – Outside directors aren't management directors, Dominick adds. "You have to trust the people you work with. You can't do the job for them."
- Strong ethics

Different markets should look to different areas to fill their director needs, Dominick adds. Banks in urban markets can look to the healthcare sector, where directors deal with similar issues, including evolving technology, intense regulation, data security and privacy concerns. "Industry experience can help, but a former banker may not want to do this," Dominick added.

In more rural areas, a sense of community is important for directors, according to Dominick, "Compensation is not a driver."

VII. Payments

A. Mobile Payments

Though mobile payments are growing in excess of 100% annually, they still represent only 8% of total payments, according to NTT DATA Services. Concerns about fraud and complex processes for some mobile payments programs are among the factors limiting faster acceptance.

Mobile wallet adoption is on the rise globally and consumers in the U.S. and Europe are catching up with those in fast-growing economies in Asia and Latin America where mobile wallets have already become the dominant payment platform, according to the *Global Consumer Survey: Consumer Trust and Security Perceptions* by ACI Worldwide and Aite.

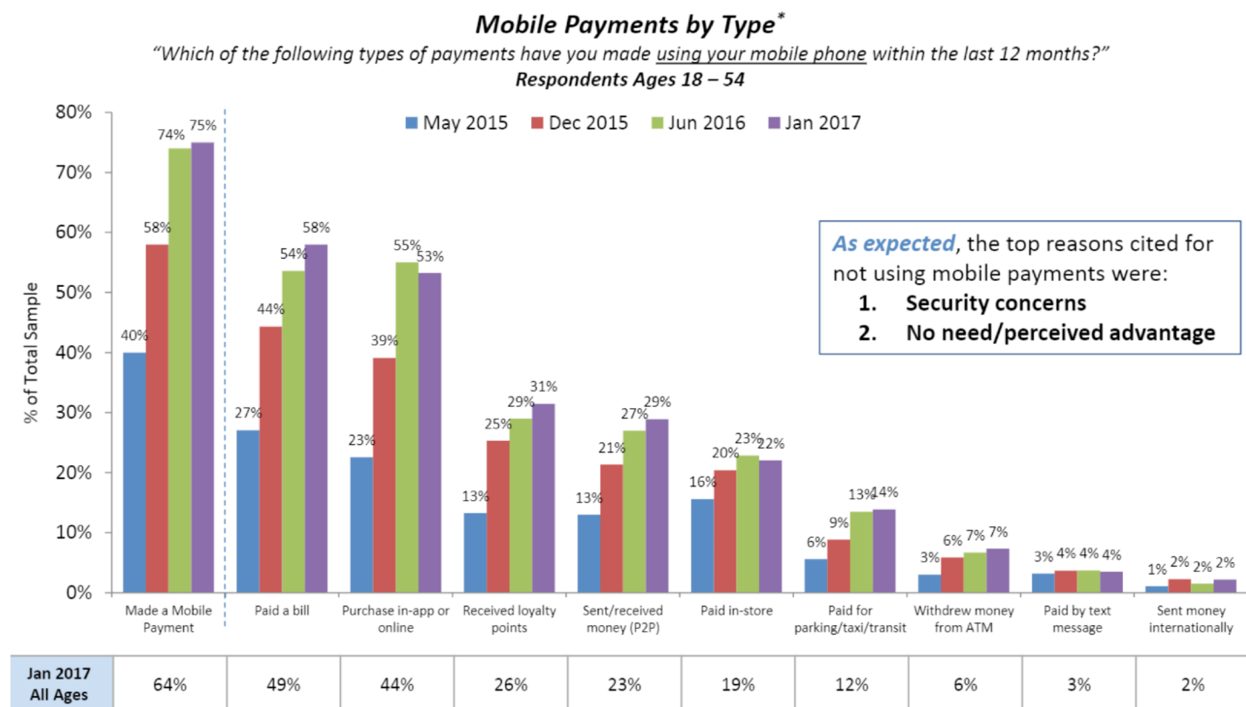
The research shows that 17% of U.S. consumers now regularly use their smartphone to pay, up from 6% in 2014 when the survey was last conducted. In Europe, Spanish consumers are the most active users of mobile wallets, with 25% using them regularly, followed by Italy (24%), Sweden (23%) and the U.K. (14%).

"Mobile wallets really started to grow in popularity after the launch of Apple Pay almost three years ago," said Mark Ranta, head of digital banking solutions, ACI Worldwide, in the report. "What we are seeing is a tipping point regarding adoption, which can be attributed to consumers worldwide now almost exclusively using payment-enabled devices, as older models have cycled out, with a few exceptions."

However, they may also become a bigger target for criminals – consumers are more exposed to fraud when using their mobile wallets. Compared to previous years, confidence rates regarding mobile wallet security have dropped in some countries, a sentiment that may be influenced by increasing reports of new mobile wallet fraud and scams.

With several countries working on faster payment schemes, the report predicts new players will enter the market in 2018.

However, according to the First Annapolis Consulting 2017 *Mobile Wallet Report*, though mobile adoption increased dramatically in the 18 months prior to January 2017, these increases have been leveling off. Additionally, consumers want more than one mobile payment app on their phone, "and they want their bank to provide it."



Source: First Annapolis Consulting

Gaynor expects renewed interest in the receipt side of mobile payments, particularly for businesses. Even consumers don't want to pay from a single app, so merchants who offer their own payments apps can offer built-in convenience for payments and built-in assurance for themselves that they receive payments.

Financial institutions can benefit by working with merchants to adopt mobile payments and working with consumers to use it, Gaynor adds.

B. Faster Payments

Efforts to develop real-time payments that can take various forms (ACH, various digital formats) continued to move forward in 2017. The Fed's Faster Payments Initiative recently created the Governance Framework Formation Team, which is a short-term working group that will develop the governance rules and define capabilities, designed to lead to ubiquitous faster payments in the U.S. by 2020.

The formation team will initially focus on the structure, decision making and processes of a governance framework, and is committed to keeping industry stakeholders abreast of progress by seeking comment on its recommendations in the spring of next year, with the goal of concluding its work in the second half of 2018.

The initial plan is to develop a framework that will be open enough to include yet undeveloped payment technologies. Countries like the U.K. and Singapore that launched earlier faster payments efforts were primarily designed for payments platforms that existed at the time.

North American commercial banks are continuing to increase their investment in real-time payments, according to the Ovum report: *The Rise of Real-Time Payments (RTP) in North America*.

North American commercial bank IT spending is set to increase by $3.3 billion growing to $17.1 billion per year by 2021, while 50% of U.S. and 40% of Canadian banks plan to further increase investment in RTP systems on a year over year basis While implementing RTP infrastructures later than global peers, U.S. and Canadian institutions are looking beyond the basic implementation of new payment rails, the report adds. Instead, banks are also investing in services such as artificial intelligence and mobile banking based on real-time account data, because they see that that RTP is an important strategic opportunity.

"The move to RTP infrastructures has its roots in consumer banking, but commercial banks will also be affected by the changes," said Ovum principal analyst and report author David Bannister. "Twenty-eight percent of U.S. commercial banks are increasing their spending on this area by more than 6% in 2018 – but the more far-sighted are also

looking beyond basic compliance towards what product and service enhancements they will be able to develop for their corporate customers."

VIII. Fraud Prevention

The fraud fight continues to be a never-ending battle as individual hackers and organized crime rings continue to hone their expertise with malware, social engineering for sophisticated card fraud, application fraud and account takeover attacks.

"Banks right now are playing catch-up in terms of data security," said Waupsh, pointing to improved data and better analysis as critical in the battle against fraud.

The size and scope of the breach in the late summer put a sharper focus on the problem for consumers, financial institutions and regulators alike.

And it's not just digital data that fraudsters are going after. According to an Association for Financial Professionals (AFP) report, 75% of organizations experienced check fraud in 2016, up from 71% the previous year and a reversal of the declining trend in check fraud since 2010.

Additionally, more than 70% of corporate treasury and finance professionals said they were hesitant about adopting mobile payments for their organizations, due to security concerns.

The FICO 2017 North American Banking Survey showed that 44% of consumers rate identity theft and banking fraud as their top concern – far ahead of the next worry, the death of themselves or a loved one (22%) or being a victim of a terrorist attack (18%).

Surprisingly, 78% of consumers who said they experienced fraud were satisfied with their bank's response or handling of the incident. Some of those victims even were positive enough about their financial institution's response that they recommended the bank to others (20%) or opened additional accounts (14%).

Machine learning analytics are starting to help financial services providers improve their fraud protection efforts. 68% of financial institutions cite machine learning analytics as a high priority investment over the next few years, according to FICO.

Some vendors are partnering to bring financial institutions more advanced fraud-fighting solutions. In October, Jack Henry & Associates introduced JHA Enterprise Risk Mitigation Solutions™, a single, fully-hosted anti-money laundering (AML), fraud

identification and analysis solution for regional and community financial institutions. SAS solutions, which are typically provided to very larger financial institutions, is now available to banks and credit unions in the United States below $30 billion in assets via the partnership with Jack Henry & Associates.

Such partnerships as well as evolving machine-learning capabilities are helping financial institutions build data to battle the intelligence-gathering efforts of fraudsters. Hackers are using intelligence they gather from various channels to launch many of the attacks. The Aite report references cross-channel fraud as a key attack concern.

"Those who are early adopters of advanced machine learning analytics will be able to greatly reduce fraud while also improving the customer experience, giving those FIs a decided edge over their competitors who lag in these advancements," said Julie Conroy, research director for Aite's retail banking and payments practice, in the report. "Data is the new currency, and creating intelligence from data at scale requires machine learning technology."

IX. Compliance

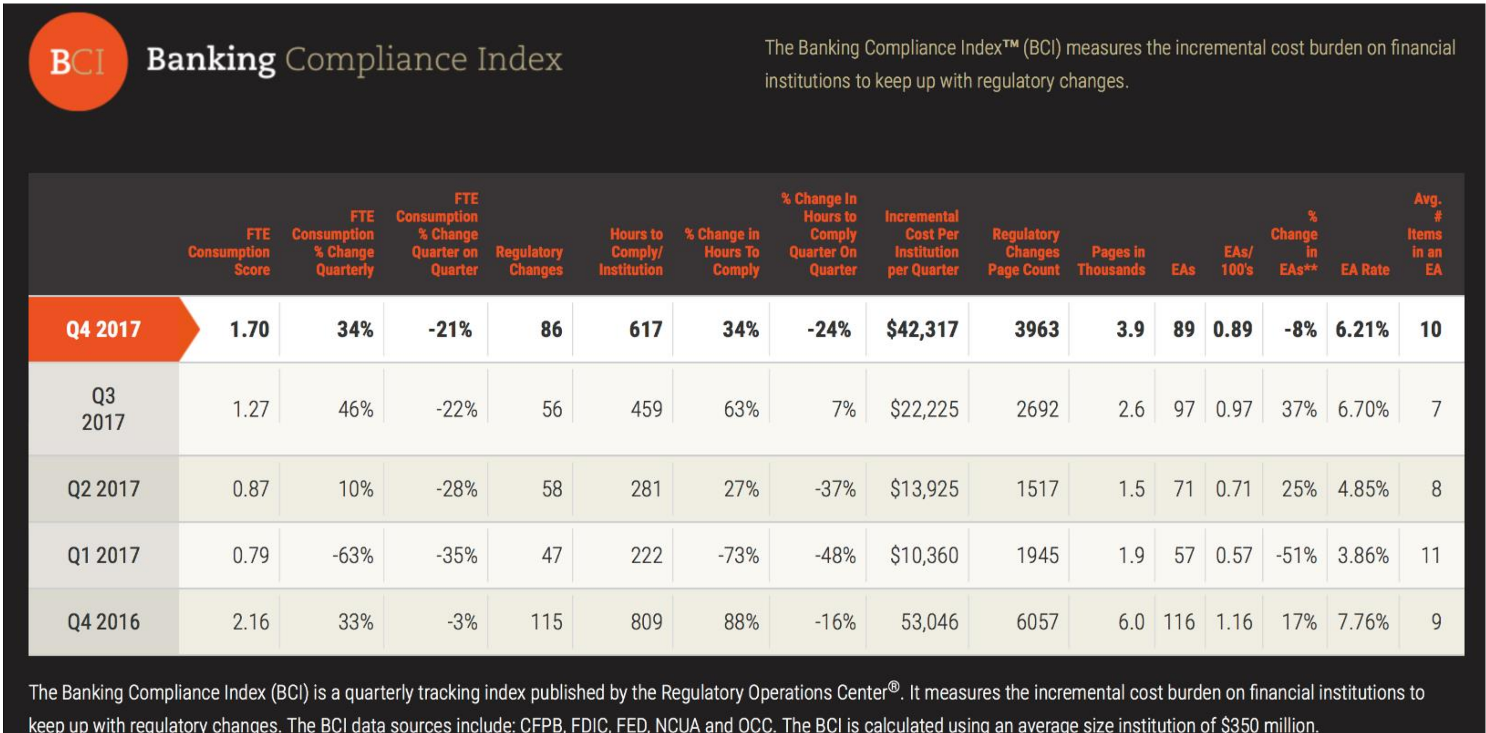
Though the Administration has talked about relaxing regulations, little of that has happened for financial institutions, says Mike Nicastro, CEO of Continuity, a compliance management provider.

The Consumer Financial Protection Bureau (CFPB) has relaxed its arbitration rule that enabled class action lawsuits at any time. "The rule wasn't well thought through, that's why it was reversed," Nicastro said, adding that the change helps large financial institutions, but not community banks, which were extremely unlikely to be the targets of any class action lawsuits.

Additionally, though financial institutions were to begin submitting HMDA data collected in 2017 and beyond using the CFPB's new online platform at the beginning of 2018, the agency announced in late December that it would not penalize banks for any errors in the 2018 data (submitted in 2019), nor would they have to resubmit that data unless the errors were found to be material.

However, other regulations are becoming more burdensome. According to the Continuity Bank Compliance Index, nearly 2,100 pages in additional regulation were

issued in the third quarter of 2017, with more details expected at the end of the year, so it's "back to business as usual."



	FTE Consumption Score	FTE Consumption % Change Quarterly	FTE Consumption % Change Quarter on Quarter	Regulatory Changes	Hours to Comply/ Institution	% Change in Hours To Comply	% Change In Hours to Comply Quarter On Quarter	Incremental Cost Per Institution per Quarter	Regulatory Changes Page Count	Pages in Thousands	EAs	EAs/ 100's	% Change in EAs**	EA Rate	Avg. # Items in an EA
Q4 2017	**1.70**	**34%**	**-21%**	**86**	**617**	**34%**	**-24%**	**$42,317**	**3963**	**3.9**	**89**	**0.89**	**-8%**	**6.21%**	**10**
Q3 2017	1.27	46%	-22%	56	459	63%	7%	$22,225	2692	2.6	97	0.97	37%	6.70%	7
Q2 2017	0.87	10%	-28%	58	281	27%	-37%	$13,925	1517	1.5	71	0.71	25%	4.85%	8
Q1 2017	0.79	-63%	-35%	47	222	-73%	-48%	$10,360	1945	1.9	57	0.57	-51%	3.86%	11
Q4 2016	2.16	33%	-3%	115	809	88%	-16%	53,046	6057	6.0	116	1.16	17%	7.76%	9

The Banking Compliance Index (BCI) is a quarterly tracking index published by the Regulatory Operations Center®. It measures the incremental cost burden on financial institutions to keep up with regulatory changes. The BCI data sources include: CFPB, FDIC, FED, NCUA and OCC. The BCI is calculated using an average size institution of $350 million.

Source: Continuity with data from CFPB, FDIC, FED, NCUA and OCC

Fair lending rules are becoming stricter in many ways, Nicastro adds. "The Federal Reserve doesn't want to get caught flat-footed like it was in 2007-08 with loan risk and portfolio risk."

The FDIC has laser focus on commercial lending risk, Nicastro adds. The concern over risk is not unfounded. "Look at Wells Fargo. They were caught once, twice, and then again. From a federal standpoint they were looking at millions of dollars in fines."

Any fines can become quickly burdensome, particularly for a community bank. There are several technologies to help financial institutions manage this risk, providing banks with the trackable details that regulators want to have and something that bankers can't be without, otherwise compliance officers wouldn't be able to keep pace. An increasing percentage of these technologies include machine learning, which some vendors term artificial intelligence, but true AI in these tools is still a future technology, according to Nicastro.

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"It's already been proven that complaining about [the compliance burden] doesn't help," Nicastro added.

Nicastro recommends that banks combine risk tools with compliance management tools for enhanced efficiency. Also helpful are tools that enable financial institutions to automate compliance report preparation.

Banks will also be looking at technology to aid with cyber risk management, Nicastro adds.

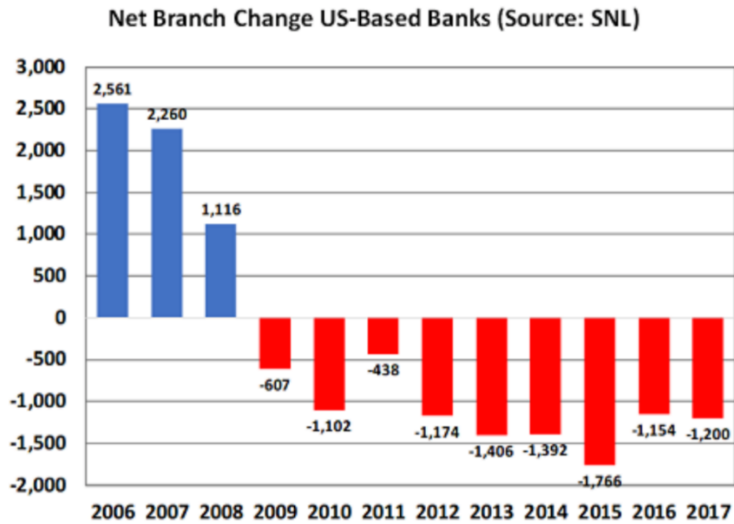
X. Branch Technologies

Even though mobile banking continues to gain in popularity, a J.D. Power survey on retail banking satisfaction showed that branches still mater.

Overall satisfaction among those who visited a bank branch in the previous year was 27 index points higher (on a 1,000-point scale) than among those who did not visit a branch (824 vs. 797, respectively). For millennials, those who used both the branch and mobile, their index was 20 points higher than among those who used the branch only and 37 points higher than among those who used mobile only. Additionally, 78% of new accounts are opened in the branch.

New technologies from core providers can help banks be successful in transitioning to smaller branches, says Stacey Zengel, president of Jack Henry Banking at Jack Henry & Associates. The company offers an outsourced IT infrastructure solution (Gladiator Hosted Network Solutions) for servers, storage, network and operating systems via JHA's private cloud, as well as Branch Anywhere, an enterprise mobility solution that provides a mobile application platform for branch employees. Branch Anywhere is designed to convert tablets and smartphones into contemporary new banking channels.

Banks recognize that the branch is important, but there's no agreement on the type of technology necessary to maximize branch effectiveness and return on investment, says Celent's Meara. "Despite all of the discussion, it's amazing how little things in the branch have changed in the last two years," said Meara.

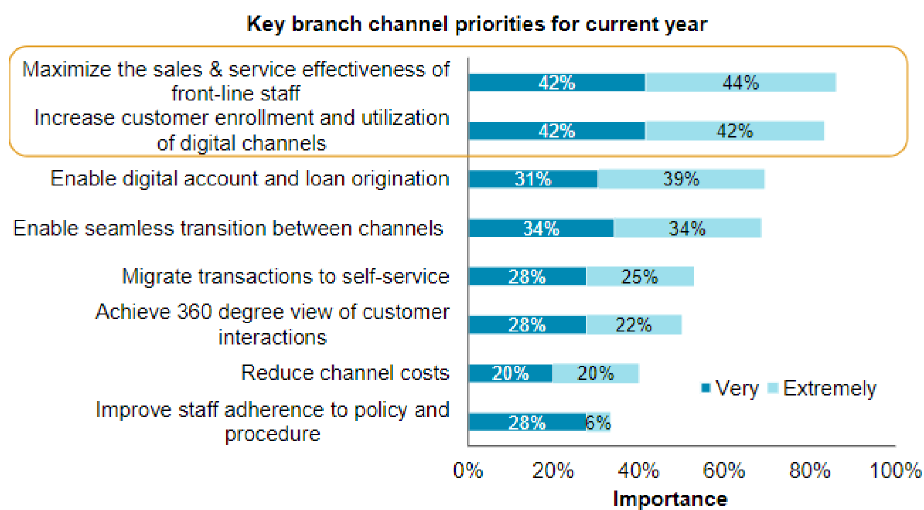


Source: SNL

The problem is that branch technologies can take two years or more to install, but the institution's branch strategy and consumer attitudes could change in that amount of time, making obsolete the branch technology that looked like such an excellent idea only a couple of years earlier.

"Most banks have no clear vision of what they want to do with their branch network," said Meara. Even those that do know what they want with their branch networks have different strategies, so the technologies they will purchase will be diverse. "There is no single blueprint."

Figure 1: Two Branch Channel Priorities Drive Short-Term Decisions



Source: Celent Branch Transformation Research Panel, April 2017, n= 38
Q: What are your key branch channel priorities in the current year? Indicate the importance of each objective.

Source: Celent

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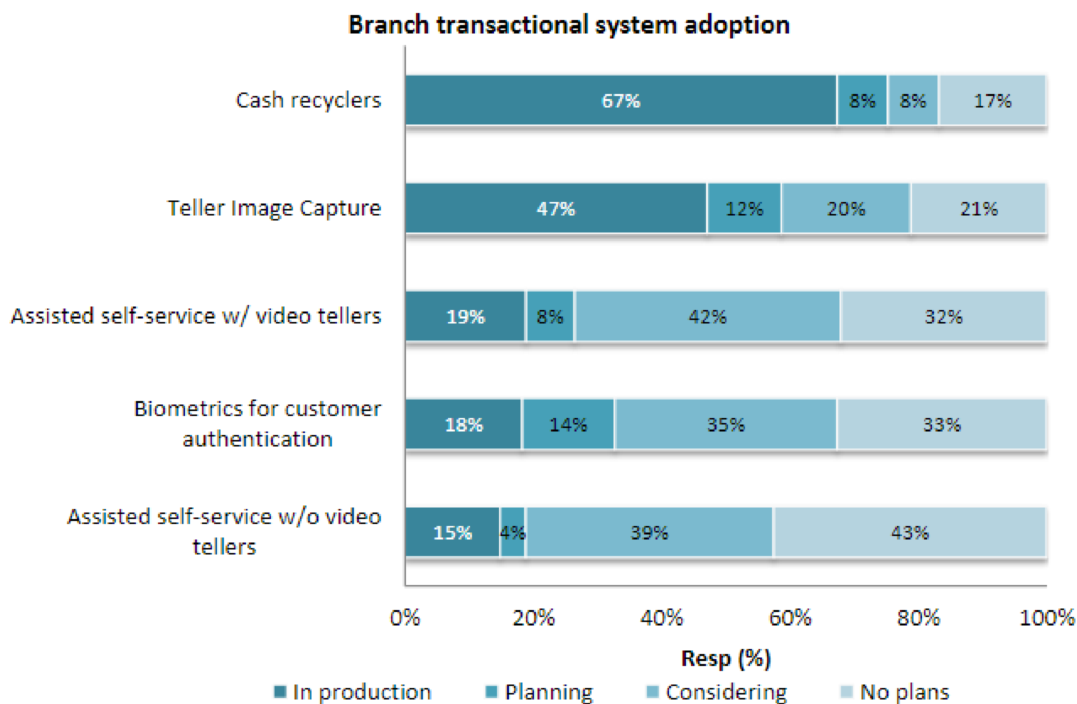
Cash automation, cash recyclers (replacing cash drawers) and automation of teller services are popular, though there are arguments on how much assisted self-service is beneficial for the branch.

The branches themselves continue to trend toward an open concept, some including a concierge, though such a position is costly to staff with foot traffic in branches continuing to decline. The open concepts are resulting in tablets replacing desktops, giving customer service representatives better mobility.

“Mobile is continuing to grow, but the branch is not going away,” said Meara.



Source: Celent

XI. Community Banks

Community banks will continue to seek more digital capabilities from their core providers, says Jimmy Sawyers, co-founder of Sawyers & Jacobs, LLC. “They are dependent on the core providers for their systems. Open APIs remain a goal, but community bankers will find those harder to execute than they’ve been led to believe. For open APIs to work, there must be cooperation between core and third-party

providers, but the core providers are not motivated to do that. They have no desire to let others in there. It's a real conundrum for bankers."

Sawyers expects community banks, much like their larger brethren, to focus much of their technology spending on mobile to cater to mobile-only and mobile-predominant customers.

Another technology area that community banks will focus on in 2018, according to Waupsh, will be data analytics, with the prices of many of the related technology dropping to the point where they are affordable. Yet the hard work – data cleansing – will still be up to the community banks.

With larger banks aggressively expanding their footprints, smaller banks will also seek to protect their customer bases by investing in new tools to engage with customers, Banks says.

Community banks will get some help in paying for these technologies when the new corporate tax rate takes effect next year, Sawyers adds.

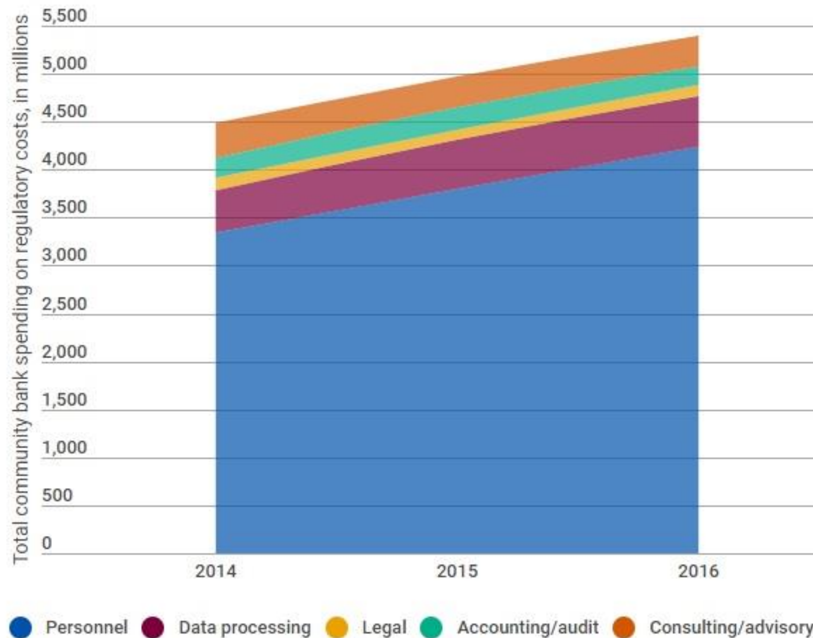
One area where Sawyers sees both community and larger banks trying to expand their mobile offers by adding person-to-person payments. Banks are lagging in this area due to onerous customer onboarding, and other friction in the process, according to Sawyers.

If banks don't get this right, they will continue to lose payments business to Venmo, Facebook and other non-bank payments providers. Zelle, the payments offering by 50 banks as well as a couple of card issuers and payments processors, is still suffering from low usage, Sawyers says.

Sawyers adds that community banks might see benefits from a promised easing of regulations, but could also see additional competition if regulators move forward with allowing industrial bank charters for fintech companies.

Community Bank Compliance Costs Leap 20 Percent in Two Years

Growing personnel costs boosted the amount that community banks spend on compliance to $5.4 billion—about a quarter of community banks' net income in 2016.



Source: Fed/CSBS, Community Banking in the 21st Century, 2017

Source: Fed/CSBS via ABA Banking Journal

The annual Federal Reserve survey on small business credit found that small firms were more satisfied with community banks than with other types of financial institutions. Community banks had an 80% satisfaction score, compared to only 46% for online lenders. Additionally, only a scant 5% of approved small business bank borrowers were dissatisfied with their experience.

XII. Lending/Risk Technologies

Financial institutions that are using all of the tools at their disposal are experiencing the "golden age" of risk analytics, according to McKinsey & Company analysts.

Financial institutions are combining machine learning with vast amounts of data to finely hone their lending decisions. Banks are utilizing not only their own customer

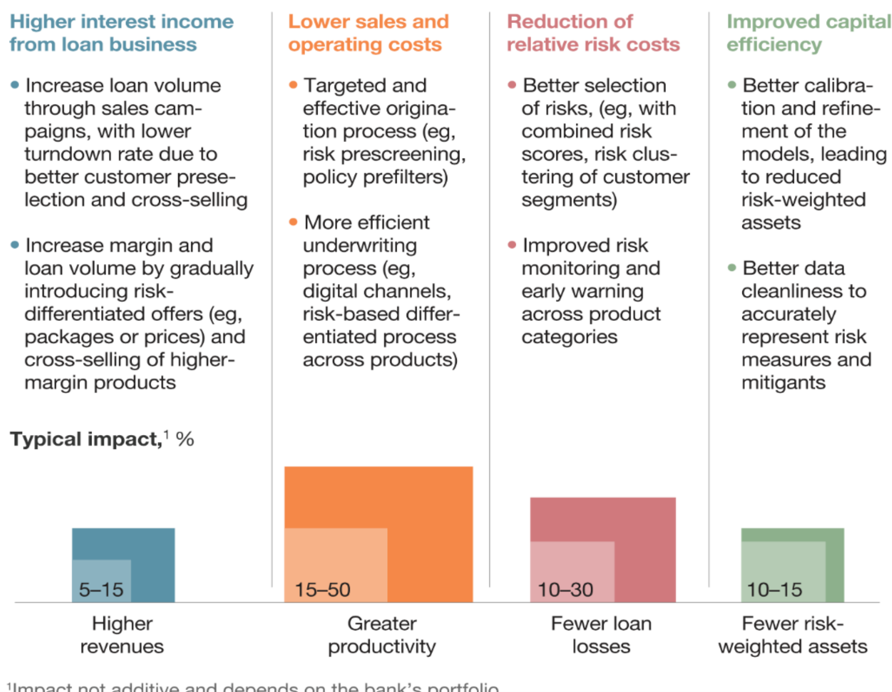
information, like transactional and behavioral data from multiple sources within their organizations, but also credit bureau reports, market information and unconventional sources like government data and customer data from utilities.

According to McKinsey analysts, banks are combining internal and external data sets in unique ways, such as by overlaying externally sourced map data on the bank's transaction information to create a map of product usage by geography.

Armed with this information, they have a better idea when to approve conventional credit with risk-based pricing and when they can safely approve non-conventional loans such as non-qualified mortgages (non-Fannie Mae or Freddie Mac loans).

Automated manual processes – such as data capture and cleansing – help with the creation of reports in near real time, as Nicastro mentioned earlier. This means that risk teams can increasingly measure and mitigate risk faster and more accurately.

Deploying risk analytics in this fashion is helping leading financial institutions enjoy higher interest income from loans, lower sales and operating costs, reduction of relative risk costs and improved capital efficiency, according to McKinsey.



Source: McKinsey & Company

However, McKinsey adds that while leading institutions are enjoying these benefits, most banks are still striving to achieve such results. Many financial institutions are struggling with out-of-date technology, data that is difficult to clean, skill gaps, organizational problems and unrelenting regulatory demands that are slowing risk analytic advancements.

XIII. Future Innovation

A. DevOps

Some of the largest financial institutions have started to develop technology that could find its way into more mainstream use – at least at the larger banks, late in 2018 and increasingly in future years.

DevOps, a set of practices that automates the processes between software development and IT teams so they can build, test, and release software faster and more reliably, is moving from technology and telecom industries into banking, according to Marshall. “The use of this capability will significantly improve the speed of developing all customer-facing, mobile, web and contact center applications.”

DevOps is becoming a reality as financial institutions move more of its operations into the cloud, says Marshall, adding that one of the largest North American banks has already moved its core banking into the cloud, with others expected to follow suit in the next few years.

As many as 15 of the largest banks were moving into the pilot stage of various DevOps capabilities at the beginning of 2018, Marshall adds.

B. Artificial Intelligence

While not new to banking per se, since some elements have been used for risk mitigation, and customer targeting will be moving deeper into financial institutions.

Banks will be using artificial intelligence for enhanced judgment, enhanced interaction and to develop intelligent products, Marshall says.

Enhanced judgment will evolve as artificial intelligence capabilities augment human interaction with the customer, according to Marshall. “It will support the growth of banks by augmenting human decision marking – machine learning-driven signals will be used to improve unsecured underwriting. The artificial intelligence engine will sift

through complaint data to determine the sentiment and the nature of the complaint for more rapid feedback."

That means more rapid notification to bank management – important when complaints are from high-value customers – and is one element that will help provide improved customer interaction, according to Marshall. Capital One and Bank of America are already using artificial intelligence and personal virtual assistants like Google Home and Amazon Echo to enable customers to request money movement, request information and to interact with the bank in other ways.

"This will continue to be an area of improved customer service," said Marshall. "The improved level of interaction will be far different than what you are seeing today."

Artificial intelligence will drive development of new, intelligent products, providing financial institutions to craft products down to the customer level, including customer loan and deposit products, according to Marshall. He expects much of the development to center around the personal wealth area, enabling customers to benchmark their portfolios against certain performance metrics. "There are a lot of possibilities," said Marshall.

He adds that artificial intelligence will help banks keep and enhance customer trust in the organization by helping to identify money laundering attempts and other suspicious activity, while also helping to generate reports for institution executives and regulators about suspicious activity in easily digestible, written formats.

C. Interactive Assistants

Some larger financial institutions, particularly those with credit card operations, have already adopted digital assistants to help with transactions, balance transfers and other basic questions.

In last year's report, we discussed how Capital One had incorporated the banks app into the Echo voice commands. Some other banks and credit unions have followed suit with various personal digital assistants, with others likely to enable customers to conduct basic transactions and obtain balance information and ask rudimentary questions.

But that is only the first step for this technology, according to Aite. Banks are experimenting with chatbots and interactive assistants now on a small scale, but with

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more sophisticated data and machine learning they may be able to help with budgeting, spending and more complex financial needs.

An NTT DATA Services study found that 27% of respondents were willing to share personal data for more financial guidance and for a more personal digital financial assistance. Nearly half of those willing to share their information would be willing to use virtual assistants such as Siri and Alexa to interact with their financial institutions.

2018 BANKERS AS BUYERS

Contributed Articles

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Three Ways to Engage Consumers in a Changing Landscape
By Keith Brannan

No longer are the past behaviors of consumption the law of the land.

From the massive growth of social media to the domination of search, consumer behavior is changing rapidly before our eyes. Though many financial institutions are aware of these shifting behaviors, it's easy to underestimate their impact on business. Today's digital environment influences everything from how often a consumer interacts with a mobile app to how they feel about a brand.

As technology continues to empower behavior changes with no sign of slowing down, it is important for banks to understand the actions of their target markets so that they can better communicate with them. So what can be done to more closely align your activities with what consumers want to see?

To better engage with current and prospective account holders, follow these three tips that will help position your bank as a fan favorite.

Optimize Your Website for Mobile

With the surge of mobile popularity, people no longer sit down at their desktops when they research financial institutions. They are now putting their smartphone to the test instead. After the dot com boom, if a consumer was planning a vacation they might have sat down at a desktop computer to do an hour of research on best resorts and flights. Now, a smartphone user may plan a vacation in snippets while on the subway or while waiting in the check-out line at the supermarket. In fact, as of Q3 2017, more than half of website traffic came from mobile (53%), according to Statista, and that number continues to grow. But the concept of higher mobile use doesn't just apply to online shoppers and vacation goers. Consumers are likely to look at prospective banks on the go as well.

The intricate nature of desktop sites does not support mobile browsing, and many banks would be surprised to see how defective their home sites appear on a mobile device. Banks can even check the mobile-friendliness through Google's test site. Also, Google penalizes non-mobile friendly sites by placing greater emphasis on mobile-friendliness as a ranking signal. If the site is optimized for mobile, the site ranks higher in Google searches.

Next time your financial institution considers updating its website and mobile apps to reflect this new shift in consumer behavior, try having the web designer show you mock-ups, wireframes and other designs on a mobile interface. Artistically inclined developers expect to be able to showcase their work on a laptop because it gives them more room to show off an aesthetically pleasing site, but if the website is designed with mobile experience at top-of-mind, then ease of use and simplicity will be ensured for the customer.

Make Peer Feedback Easy to Find

Today's consumers are accustomed to being able to get a quick read on the reputation of a particular brand, experience or place to go. For example, in the restaurant industry Yelp is the gold standard of review sites as customers go here to see what their peers think about a particular restaurant's quality and service. Not only do consumers use specialized sites to see what their friends think, but they now reach out on social media in a big way. Facebook has even recently added an option for users to mark their posts specifically as asking for recommendations.

Now, some brands are trying to take peer-to-peer to the next level by implementing information on their own website. The idea is that when a consumer visits the site, they leave feeling like they received feedback from local customers on what their likes and dislikes are about a brand. It may seem counterintuitive to include negative comments on your own website, but this can even cause a customer to appreciate a brand more for its authenticity.

Financial institutions should brainstorm how to incorporate feedback into their website or make it easy for customers to find reviews online. At the very least, the institution should monitor social media activity, so they are aware of their reputation among account holders and prospective account holders within the community.

Manage Customer Expectations and Take Charge of Service Delivery

According to industry hotel veteran Chip Conley, there is an emotional equation for a customer's disappointment: disappointment equals expectations minus reality. An easy example of the disappointment equation is in the food industry. When a restaurant goer is disappointed in a steak they ordered, there are generally two reasons why. Either the

diner's expectations were too high or the reality of the experience delivered was too low. Maybe the restaurant patron expected to have the best steak they'd ever eaten, and while the steak was cooked well – it did not quite meet their expectations, so they left disappointed. Alternatively, maybe they expected an average steak cooked medium rare, and they were delivered a steak well done.

Banks and credit unions must manage both customer expectations and the delivery of a good customer experience. It is easy to fixate on only improving the delivery of the experience, but financial institutions need to be mindful of ways to adjust customer expectations. One way to do this is to match your product marketing with the preferences of the target demographic. For example, according to a recent study by JD Power, "Less than 40 percent of baby boomers feel their bank data is very secure." Thus online banking may not appeal to boomers, whereas millennials demand it, so featuring messaging about an easy-to-use online banking platform will be more impactful for the younger generation.

Once you tackle these three tips for keeping up with the changes in consumer behavior, your bank will be well prepared to target specific groups of consumers and turn them into account holders. Keeping up with shifts in how consumers use technology also allows you to better serve your current user base, where you'll retain more customers and increase revenue.

Keith Brannan is Chief Marketing Officer of Kasasa, a financial technology and marketing technology company committed to driving results for community financial institutions by attracting, engaging, and retaining consumers*. For more information on Kasasa, visit www.kasasa.com, or visit them on Twitter @Kasasa, @KasasaNews, Facebook, or LinkedIn.*

Venmo, Apple Pay Cash Race to the Point of Sale Ahead of Banks and Zelle
Beyond P2P: Why Merchants and Banks Want Social Payments
By Richard Crone and Heidi Liebenguth

The mobile phone revolutionized Person to Person (P2P) payments, taking the online technology for transferring funds from individuals' checking and credit card accounts mainstream: out into the world where transactions actually happen.

For many years the P2P function was mostly ignored by traditional financial institutions hampered by the need to upgrade their legacy wired desktop Internet banking platforms to support native mobile banking apps. It was a value proposition that originally spawned PayPal's founding, enabling P2P transfers between Palm Pilots.

The market has evolved into a number of P2P categories with such examples as international remittances (e.g., Western Union, MoneyGram, Xoom, etc.), privately initiated between parties through financial institutions or third parties (e.g., Zelle, PopMoney, Square Cash, etc.) and socially through Venmo, Facebook Messenger or iMessage with Apple Pay Cash.

Up to this point, financial institutions through Zelle, PopMoney, etc. have not offered a social payment option and restrict the request and transfer of funds to only private scripts and instructions.

Venmo, a PayPal company, invented a whole new P2P payment type with the option to request and post payments to the Venmo social ledger. Users can choose how to post their payment message to the Venmo public social ledger, selecting visibility to only the payee, to friends only, or the entire Venmo universe. Today, Venmo is the only true totally public social payments provider, though semi-social options exist through Facebook Messenger and iMessage with Apple Pay Cash.

Both private P2P and social payments are killer apps for virally building an enrolled user base for mobile wallets and whole new payment types. However, social payments have far more upside in creating new value propositions and revenue streams for all the stakeholders in the payments space.

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Venmo: The Whistle You Cannot Hear

Venmo as a brand has evolved to be both a noun and a verb. The phrase, "just Venmo me the money," epitomizes acceptance of the innovation by new and existing users alike.

What existing players in the payments space and especially financial institutions tend to miss is that Venmo is also a social network. And one of the byproducts of having a social network is having a marketing platform for monetizing the social interactions that come from facilitating communications among the active users. This is the business model employed by Facebook, Google, Twitter and every other network seeking to stimulate the enrollment of an active online user base. Social networks are more than social, they are marketing platforms.

Payment is always a part of bigger picture, a series of events, before, during and after, and that is where the innovation and new value creation lies for those seeking to maintain or create their new place in the space.

Financial institution-supported P2P services such as Zelle, provided by Early Warning Services, and originally formed through a consortium of banks known as clearXchange, doesn't provide a social payment option and thus misses all the upside that comes from providing a social following and marketing platform.

This missed opportunity is illustrated by the release last year of "*Pay with Venmo*," a feature allowing users to use Venmo to buy things online from merchants as a new tender type.

Social followings of all types resonate with brands, retailers and anyone seeking to gain a network effect and following for their offerings. Managing social media is a cornerstone to all marketing and promotional campaigns. Word of mouth, peer-based endorsements are more credible, highly trusted, and when they spread virally through social media, far more valuable than traditional advertising.

Every Consumer Packaged Goods (CPGs) brand, product manufacturer, retailer and even the local yoga instructor or street vendor want to create a social following from their customer interactions. *Pay with Venmo* social payments tap into the power of personal referrals and do this as a byproduct of the payment process.

What could be a more convincing than your friend's endorsement of a retailer, brand or food truck by actually buying something and making it a social payment on Venmo?

Venmo and *Pay with Venmo* set a precedent for a new kind of business and a new kind of banking. Call it social banking, social retailing, social branding, where every service interaction or customer touchpoint represents a share point and "post point" to a social network with its subsequent following, peer group endorsements and the like.

This is what financial institutions need to tap into and why they need an embedded social payment strategy.

For example, say a bank customer applies for a loan, the bank *customer shares*; they get the loan, *they share*; they buy the car, *they share*; they get the extended warranty, *they share*; they make the car payment, *they share*; if they get in an accident they take a picture in the insurance app to make a claim and *they share*.

These are all big life events; they are getting posted to social media now but the brands, retailers, banks, product and service providers that stimulated the feed are not in the thread.

Link to social, and at minimum link to social payments or social banking or retailing, and you have a new lifelong, continuous connection to the customer and their dynamic and ever-growing network of trusted friends!

Venmo and this idea of complete transparency, where the customer can choose to share parts of their payment and financial experiences socially is the whistle most financial institution executives cannot hear.

What's engaging is not payment itself, it is what you are buying, the experience and how what you bought affects and enables life. That is the premise of social payments. For financial institutions to play in this, they need an embedded, mobile and social payment strategy.

How Financial Institutions Are Helping Build Apple Pay Cash

Apple's P2P funds transfer service known as Apple Pay Cash is a plus one feature for Apple Pay and only works for registered pre-authenticated users of Apple Pay.

But it is more than just another use case for Apple Pay; Apple Pay Cash is really a new tender type. Apple Pay Cash, for all intents and purposes, is a Private Label

Prepaid Debit (PLPD) account; except the issuer here, instead of being a merchant, is Apple. And as such, Apple is the merchant of record for funding this account (and Green Dot is the issuer processor behind the scenes, just as FIS or Fiserv are the core processors behind the scenes for financial institutions).

Apple Pay Cash is a hybrid PLPD account because it is also open loop, because your Apple Pay Cash is not just for P2P payments, but accepted anywhere Apple Pay is, making it open loop PLPD. This would be like Walmart Pay, Target Wallet or Kohl's Pay gift cards being accepted at competing merchants.

Again, Apple Pay Cash is a whole new tender type. And this new tender type has its own debit network as announced by Discover in its press release dated December 5, 2017 titled, “Discover Network Enables Payments for Apple’s Newly Launched Apple Pay Cash.”

Discover will provide the network, processing rules, pricing, etc. for the new tender type (Apple Pay Cash).

Discover will charge the merchant for accepting Apple Pay Cash, and generate revenue from a whole new tender type for Apple, Discover and Green Dot; not Apple Pay issuing banks that funded the Private Label Prepaid Debit (PLPD) account in the first place.

In fact, the Apple Pay issuing banks are actually contractually obligated to help fund the Apple Pay Cash account, because their contracts call for paying a portion of their interchange to Apple for every Apple Pay transaction. Since Apple acts as a merchant for the PLPD funding, the financial institutions are essentially donating a portion of their own proceeds to fund a competing payment account, namely Apple Pay Cash.

This is one of the unintended consequences of financial institutions’ commitment to Apple Pay, since they do not participate in any of the downstream revenue from merchants when Apple Pay Cash is used to pay merchants directly.

Apple Pay Cash acceptance also drafts the acceptance momentum of NFC at the physical point of sale, giving it even more of a push at the physical point of sale than the bank-sponsored P2P services such as Zelle, PopMoney, etc.

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We don't know what they are charging merchants to accept Apple Pay Cash, but we can assume the proceeds from this new tender are used to compensate Discover, Green Dot and most assuredly, Apple.

Just as Venmo and *Pay with Venmo* fuel the growth of new accounts and active use for PayPal, so will it be for Apple Pay Cash: a driver of viral, customer-funded incentives for fueling new enrollment and active use for Apple Pay.

The Venmo and Apple Pay Cash user base are the ones creating the incentives for enrollment and active use. For example, when you send your friend Michelle $30 using Venmo or Apple Pay Cash, she now has a $30 incentive to activate and use Venmo or Apple Pay Cash. The consumers, the users of Venmo and Apple Pay Cash, are paying the bounties for incenting the use of Venmo and Apple Pay Cash. This is a sweet deal for Venmo and Apple for building enrollment and active use.

Regardless of what you hear about Apple Pay, Venmo or *Pay with Venmo* adoption, there is still much more disruption and upside from innovations in P2P and mobile payments in general. Your leading indicator is the massive user base of Alipay and WeChat in China, numbering more than 500 million in less than five years and driving a mobile payments revolution in all purchase venues, virtual, physical and P2P.

Public (Social) vs. Private P2P Payments

Venmo no doubt is a fully social payment option. But Facebook Messenger and Apple Pay Cash too are initiated inside a social thread. Currently, there is a two-party restriction for Messenger and iMessage, so the social aspect is not as wide and deep as Venmo. Apple Pay Cash is what we would call semi-social.

In contrast, Zelle is anti-social allowing only private interactions. By being anti-social they restrict their market potential to those that want only private transactions.

Financial institutions need to have more than a mobile P2P offering, they need a social payment AND social banking strategy with a clear vision for embedding payment into every purchase, transfer and value creation event when serving customers.

Financial intuitions must actively choose for themselves; they cannot depend on their mobile banking or core vendor alone for defining their own course of action because waiting is not a strategy.

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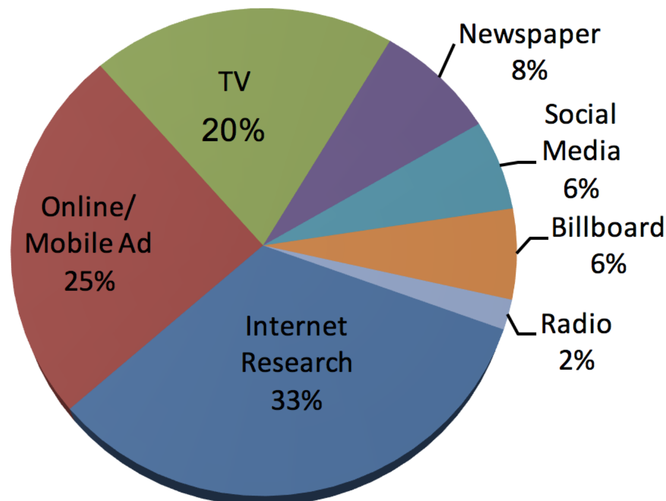
Richard Crone and Heidi Liebenguth lead Crone Consulting LLC, an independent advisory firm specializing in mobile strategy, smart check-in/checkout and payments. Crone Consulting has helped define the mobile commerce and payments strategy for all sizes of financial institutions, large merchants and specialty retailers, restaurants, recurring billers, core processors, payment networks, telcos, consortiums and investors. The firm's payments optimization services have achieved 10 to 30 percent cost reductions and revenue increase through innovative self-service, alternative and mobile payment strategies. Richard and Heidi can be reached at www.croneconsulting.com.

Driving Forces of the Financial Services Industry in 2018
By Karl Dahlgren

As financial services continue to evolve at a rapid rate, leaders in this industry need to have a clearer understanding of their customers' perspective. BAI conducted its research study, the BAI Banking Outlook, which consists of 2,000 consumers across different generational segments and 556 financial services leaders representing organizations ranging in size from community banks to large mega banks, to determine the key trends in consumer banking. BAI breaks down some of the top trends that will affect the financial services industry in 2018.

How customers find their primary financial institution and why it matters
New customer acquisition was one of the top business challenges for the financial services industry in 2017. Yet, the BAI Banking Outlook found disconnect between how financial services organizations (FSOs) are spending their dollars and how consumers are finding a new primary financial institution (PFI). More than half of consumers find their PFI through an online channel, but banks reported only allocating 33 percent of their advertising budget to digital channels.

How consumers find their PFI



Source: BAI Banking Outlook

The contrast between how consumers find their PFI and how FSOs allocate their

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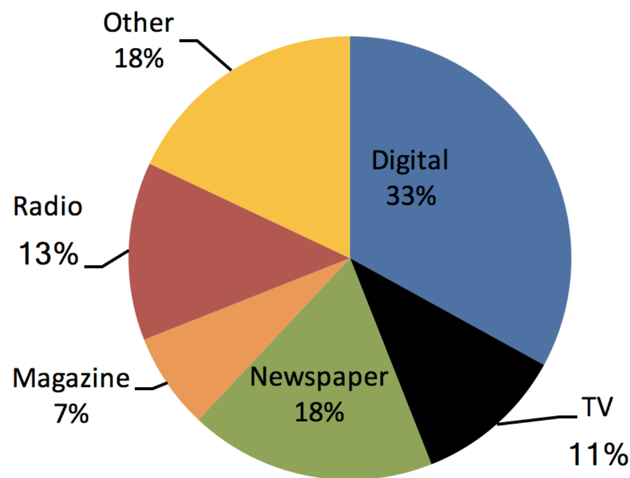
marketing spend is a clear disconnect between organizations and their potential customers. This disconnect could have a negative impact on new customer acquisition. In 2018, the industry can expect to see a shift in advertising budgets toward more digital channels.

Advertising budget allocation by percentages



Source: BAI Banking Outlook

When it comes to reasons why consumers actually choose their PFI, historically the most important aspect was the branch network. However, the reasons why consumers initially chose their PFI are no longer the reasons for selecting a new PFI. Now, the top reasons why consumers would move to a new PFI are:

1. Extensive ATM/No fee ATMs (24 percent)
2. Reputation/Recommended (20 percent)
3. Cash/Incentives/Rewards (18 percent)
4. Extensive branch network (16 percent)
5. Innovative online/mobile (12 percent)
6. Available knowledgeable staff (12 percent)

While an extensive branch network is still a key consideration, it is not one of the top three reasons why a consumer would choose a new PFI. FSOs need to take this into consideration when strategizing for 2018 or risk missing out on new customer acquisition.

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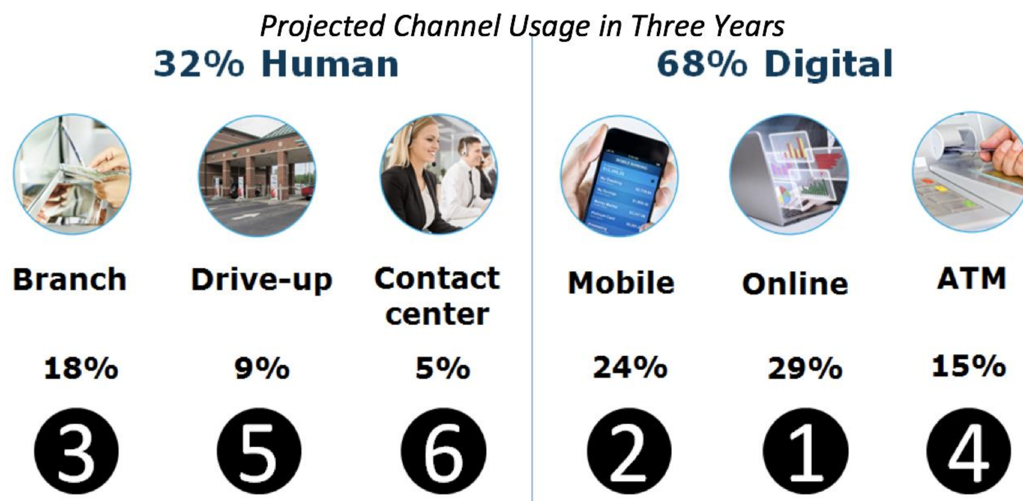
Technology takes banking to new heights, leaves room for improvement

Digital is rapidly becoming an integral, necessary component of modern banking. Currently, 64 percent of channel usage falls under digital. Consumers reported that in three years, 68 percent of all interactions with their PFI will be done digitally.



One of the more alarming findings from the BAI Banking Outlook is that while 70 percent of FSOs believe their banking applications (app) meet the needs of their customers, more than half of millennials said they would change FSOs for a better banking app. Meaning, organizations have room for improvement in their mobile banking app but believe that it meets the needs and helps the organization remain competitive. As fintechs enter the space at a rapid rate, FSOs should look to partner with these solutions providers to offer an unparalleled mobile banking experience.

And, while ATMs play a large role in consumers determining their PFI, remote deposit capture (RDC) is rapidly growing among all generations. When surveyed, 42 percent of millennials and 38 percent of Gen. X reported using RDC as their primary deposit method. Baby boomers and the silent generation reported branch or drive-up as their primary deposit method, however, RDC was the second preferred method. As consumers continue to shift toward digital, we anticipate RDC capabilities becoming a more important aspect of mobile banking in 2018.

Similarly, FSOs need to focus some attention on person-to-person (P2P) platforms and their impact on the industry. In the last 12 months, 93 percent of millennials, 81 percent of Gen. X, 62 percent of baby boomers and 49 percent of the

silent generation used a P2P platform more than once and non-banks remain the leading P2P platform providers. FSOs need to continue to innovate and improve on the digital channel capabilities to keep up with the consumer shift of moving into digital.

Regulatory Compliance Training

Regulatory compliance remains the top business challenge for FSOs. Of the 556 banks surveyed, regulatory compliance ranked one of the top three investments over the next two years. As part of that investment FSOs of all sizes anticipate hiring additional personnel over the next two years and attribute anywhere from 14 to 25 percent of all these individuals within their organization specifically brought in to address new regulations.

Source: BAI Banking Outlook

In 2018, FSOs will need to find ways to streamline regulatory compliance training. One trend making its way into the financial industry is role-based training, a new way of training employees on the specific regulatory and compliance knowledge they need for their day-to-day activities.

Building relationships through digital channels, technology enhancements and effective regulatory compliance training are the key subjects that will shape the financial industry in 2018 and financial services leaders need to listen to the direct feedback from their customers and make decisions powered by data in order to stay competitive in the market.

Karl Dahlgren is Managing Director of Research for BAI, a nonprofit independent organization that delivers the financial services industry's most actionable insights.

2018: Raising the Bar on Innovation and the Commercial Banking Experience
By John M. Deignan

When fintech companies first emerged in the banking industry, most financial institutions viewed such organizations with skepticism. However, after witnessing the capabilities of these agile, tech-centric companies, financial institutions have realized they need to seriously revamp their systems and processes, more recently for commercial banking customers, or risk losing significant market share. According to Accenture, full-service banks in North America could lose up to 35 percent of market share to new digital competitors by 2020.

As we approach 2018, an increasing number of institutions are shifting their perspective, recognizing the potential for collaboration with fintech companies in order to improve their competitive stance within the market. In fact, several large banks, including JPMorgan Chase, Bank of America and Wells Fargo, have teamed up to launch an organization, called TruSight, that will help other financial institutions vet fintech partners.

Additionally, according to a 2017 Capgemini report, nearly 60 percent of banking executives agree that fintech companies are setting the bar higher and 78 percent state that fintech companies provide opportunities for partnerships.

Collaborating vs. Competing

Naturally, we can expect a growth in successful bank and fintech partnerships, resulting in a more conducive environment for innovation, which will help financial institutions keep up with evolving customer expectations, both on the retail and commercial side. As bank and fintech partnerships become more common, the strategies for collaboration will take different forms based on the objectives each party is trying to accomplish. For some banks, investing in a fintech company may be the best route. For larger banks, acquisition may make the most sense, and for others, an integration partnership might be the best bet. In short, the industry will see more productive collaboration between fintech companies and banks.

Although many banks have a high-level understanding of the value in fintech partnerships, it can be challenging to determine where to even begin the process. For this reason, banks will more frequently source technology services from fintech firms to

identify the solutions that can best help them become more agile and improve their performance. Similar to how banks have sourced IT services from companies like IBM, banks will begin to use this sourcing process to better understand and assess fintech solutions. This process will ultimately help banks identify the ideal partner and engagement model. As a result, banks will be able to provide new value through innovative technologies with faster time to market, significantly enhancing the customer experience.

Modernize the Commercial Banking Experience

When considering fintech solutions, more banks will prioritize services and products that modernize the banking experience for commercial customers. Most fintech companies and financial institutions have traditionally focused their innovation efforts on the retail banking side, leaving business banking products and services stuck in the past. However, more SMB owners and commercial account holders have grown to expect the same level of technology on the business side that they receive for their personal bank accounts. Therefore, in 2018 and beyond, there will be more of a push to revamp and improve the business banking experience. In fact, in 2016, North American institutions spent $855 million on commercial solutions and by 2020, that number is expected to jump to $985 million, according to research from CEB TowerGroup, which was acquired by Gartner earlier this year.

Today's commercial banking customers increasingly demand faster and simpler solutions that address their industry-specific pain points. At the same time, banks are striving to manage more commercial assets with fewer employees in an effort to reduce operational costs and drive profitability. In 2016, the FDIC revealed that U.S. banks managed approximately $16 trillion in commercial assets with less than two million employees compared to 2010, when banks managed just over $12 trillion with two million employees. Essentially, banks are challenged to do more with fewer resources so technologies that help address these challenges will prove valuable. For example, banks that streamline and automate the commercial loan origination process, like how Marquette Bank has done with Baker Hill, can gain substantial efficiencies in the lending process and enhance the customer experience with faster turnaround times without adding staff.

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Banking on the Cloud

To do more with fewer resources, many banks will also move to public cloud services to cut infrastructure costs and digitize their business. Since the cloud allows banks to deploy an IT infrastructure without the headache of investing in their own physical infrastructure, using the cloud is becoming an effective cost-saving option. Beyond cost-savings, the cloud supports more agility and flexibility within a bank's back office so the bank can truly modernize its business from end-to-end, instead of just focusing on the consumer-facing front end.

Additionally, as both retail and commercial customers continue shifting toward digital channels, the data generated from these interactions increases in volume and complexity. The power of cloud computing will help banks derive more relevant and valuable insight from that data to make better decisions to ensure customer expectations are fulfilled. This will ultimately evolve into the adoption of artificial intelligence (AI) and cognitive banking, where the AI system is able to learn by analyzing various types of data and then suggest to the bank the appropriate course of action. Such technology will prove useful not just for customer-facing interactions, but also for back office tasks like data entry and managing policy compliance.

Ultimately, 2018 will see the continued rise in both retail and commercial customer expectations and banks will make more investments in infrastructure upgrades, whether that involves moving to the cloud, updating from a legacy system or establishing a partnership with a fintech company. Regardless, the industry as a whole must prepare to adapt and embrace new opportunities to provide value to customers.

John M. Deignan is president and CEO of Baker Hill, a leading provider of technology solutions for common loan origination, risk management, relationship management and smart data analytics. For more information, please visit www.bakerhill.com*.*

Understanding Key Vendor Negotiations and Agreements
By Brad Downs

A Pair of Threes can be a Winning Hand in Vendor Negotiations

In a card game like poker, players often make split-second decisions to check, raise, or fold. Most of the time, these calls only impact the player for the duration of a single night. However, when financial institutions partner with vendors providing mission-critical services, they are making long-term commitments which can last for months, years, or even decades.

The typical bank or credit union agreement is often negotiated for terms of between three to five years, though some systems such as core processing may feature terms that stretch out to seven or more years.

The many detailed decisions associated with these contracts, such as choice of vendor, type of pricing model and service levels, will impact a bank or credit union (and the individuals handling the negotiations) well into the future. And though every negotiation has its risks, vendor negotiations should not be a gamble. In the case of vendor contract negotiations, the following pair of threes constitutes a very strong hand.

Three Advantages Vendors Enjoy

Vendors have certain advantages over the banks and credit unions during negotiations.

1. ***It's the vendor's contract.*** Most commonly, the vendor contract under consideration is written by the vendor's business and legal teams. The vendor representatives participating in the negotiation most likely understand the purpose of every clause and can negotiate the complexity inherent in such an agreement. No matter how often the financial institution has negotiated similar contracts, the vendor maintains the advantage of knowing how the contract has evolved, what has been revised, and why.
2. ***Vendors negotiate contracts for a living.*** Vendors earn their keep by delivering products/services that financial institutions need to serve customers and members. From their perspective, a contract is the gateway to establishing the relationship. Therefore, vendors are very good at negotiating contracts because if they were not, they would not be in business.

    In addition, many vendors negotiate literally hundreds of contracts a

year. In other words, they have a lot of opportunities to see what works and what doesn't when finalizing a contract. Usually, the person representing the bank or credit union does not have this level of experience. Most vendors negotiate more contracts in a single month than bankers negotiate in their career.

3. ***Vendors know information is power***. It is difficult to know precisely what you do not know. Often in the relationship between a financial institution and a vendor, the vendor knows things that the bank or credit union does not; e.g., how the deal the institution is getting compares with the current fair market pricing for the service. A contract may seem to be a "win-win" when in reality there was money left on the table by the party that does not have the market data required to evaluate the offer. This is not to say that vendors are trying to trick anyone, but it is important to remember that it is the vendor's job to get the best deal for their company, too.

Three Strategies to Level the Playing Field

There are several best practices that financial institutions can put into play to help level the playing field when negotiating longer term contracts with vendors. For the purpose of this article, the discussion will be confined to three practices that can be implemented immediately.

1. ***Make contract negotiation a priority.*** Such advice may sound rhetorical as many banks and credit unions feel that they are already doing so. However, the vast majority approach vendor contract management as a project that can be handled adequately by a person with the skill level of a good project manager. This approach to negotiations heightens the potential for information gaps and lost opportunities, particularly when it is an exercise that the individual only addresses every few years. There are tales of harried, inexperienced managers pressed for time who simply hand a current invoice to vendors asking, "Can you beat this price?" Too many times, even pricing that looks attractive may only represent a portion of the savings that can be gained.

2. ***Understand the "how and when" associated with contract renewal.*** When a contract approaches the date of expiration, bank and credit union vendor contracts typically require formal notice of the intent to terminate as much as 90-180 days, and in some cases a whole year, in advance. This requirement applies even when the intent is simply to renegotiate terms, not to change vendors. Miss the deadline, and most agreements will be set to automatically renew for 24 months. We recommend that financial institutions begin evaluating their contracts a minimum of 18 months in advance.

   Many banks and credit unions are aware that these deadlines exist in their vendor contracts, but certain details often slip through the cracks. Vendors, on the other hand, closely track these details, and many of their sales representatives or account managers certainly aren't going to bring them to the attention of their client. Since current pricing for technology services is on a general downward trend, with a few exceptions, vendors are probably more than happy to let agreements auto-renew under existing terms, which are in all likelihood above prevailing market rate.

3. ***Take a look around.*** Incumbent vendors hold a significant advantage during contract renewal, especially given banks' and credit unions' aversion to conversions. The potential customer impacts, resource commitments, fear of the unknown, and a host of other possibilities that accompany changing vendors make it very tempting to stick to the status quo. Nonetheless, if it is clear that an institution is unwilling to entertain even the notion of a change, it will severely limit or, in some cases, eliminate negotiating leverage. To prevent this kind of position, institutions should always get bids from other providers – even when satisfied with the incumbent vendor.

We also recommend that a financial institution establish a list of conditions that would make it worthwhile to move to a new provider. This list can include price, savings, revenue improvements, support levels or functionality. Naturally, the happier a bank or credit union is with its incumbent provider, the more incentives it will need to make the move to another provider.

There is a key point to remember in all this: successful vendor contract negotiations do not have to end with a change in providers. The goal of approaching other vendors for pricing and terms can be about getting the best possible price and terms from the incumbent. It is not atypical for financial institutions to realize an additional savings of 10-20 percent when they solicit bids, simply by neutralizing some of the incumbent's advantages. However, unless a financial institution takes the time to, at a minimum, request pricing from alternative vendors, this level of savings is unlikely.

In closing, there are many nuanced ways to optimize the value of vendor contracts, especially for financial institutions who are willing to commit to the process. The "pair of threes" provided will help banks and credit unions that are looking for ways to stack the deck in their favor when negotiating contracts with vendors.

SRM (Strategic Resource Management) specializes in aligning financial institutions' third-party expenses with industry benchmarks to help them identify opportunities for bottom line enhancement. For more than 25 years, SRM has applied its expertise from continuously testing the market to negotiate more competitive vendor contracts for its clients.

Revitalizing the Payments Experience in 2018

By Fran Duggan

This coming year holds the potential to be the year of new digital experiences in the banking industry, and payment experiences will be critical to retaining customer relationships. Financial institutions have already embraced faster payments through ACH throughout 2017, and the industry is poised for new innovations that will improve payments' speed and reinvent the customer experience as we know it. For much of the last several years, financial institutions have approached the payment experience with a "check-the-box" mentality. Up until recently, it had been acceptable to keep pace with other financial institutions' payment solutions, instead of keeping a wary eye on the competition outside the industry. In 2018 more than ever, however, financial institutions are waking up to the threat of alternative payments providers, such as Venmo and PayPal, and looking to deliver a payment experience to consumers that is better, faster and smarter than what is currently available today.

Developments in Consumer Payments

The financial services industry is slowly becoming aware of the huge discrepancy between the user experience it offers and that of other consumer-facing industries, especially as it relates to payment experiences. Understandably, financial institutions have a history of being slow to adopt new solutions because of the cost and lack of innovation in what is offered by the current providers. However, as consumers are becoming more accustomed to automated, intelligent solutions in other industries, they see their payment experiences with their financial provider as clunky and outdated in comparison. Many consumers have come to rely on other industries' technology solutions to accomplish tasks for them, whether delivering groceries straight to the front door or having a thermostat adjust to a household's comings and goings. This "do it for me" mentality begs the question to the financial industry: "Can you do it for me?" This is especially relevant at a time when consumers are no longer impressed by the status quo and view banks and credit unions as lagging behind. Specifically, where consumer payments are concerned, banks and credit unions are no longer just competing against other banks and credit unions; they are also being compared to every other consumer-

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service industry, and they need to evaluate how they are going to add value in the new "do it for me" world.

The Role of Artificial Intelligence in Payments in 2018

Financial institutions have identified that artificial intelligence is the next important development that will transform the industry; however, very few have adopted practical solutions that leverage this technology. Many have the view that the role of artificial intelligence is a way to internally reduce costs rather than thinking outwardly as a way to add value for their customers.

The most significant developments in artificial intelligence in 2018 need to be focused on predictive modeling and its varying uses. Many consumers pay the same bills each month and have very predictable behavior in their spending. By leveraging their access to this rich data, financial institutions have the ability to anticipate those payments, predict how much money will be in a select account, queue up the payment and notify a consumer though a push notification that the payment is scheduled and ready for approval. Taking this a step further, through predictive modeling, a financial institution will be able to proactively offer to transfer funds from one account to another to fund a payment or if there are excess balances, offer to transfer money to a savings account. Providing a better payment experience goes beyond a pretty UI, and with AI tools, banks and credit unions, will have the opportunity to deliver these types of value added services to their customers and members.

There is a famous quote by the hockey legend, Wayne Gretzky, "*To be successful, I skate to where the puck is going to be, not to where it has been."* In 2018, financial institutions need to rethink the payments experience and go where the customer is going to be. Banks and credit unions should look to develop voice recognition, chatbot interactions, and interactive push notifications to deliver services and support for customers. Many consumers have similar needs and concerns, and expect answers in real-time but they differ in where and how they want to get their answers. For example, many younger consumers will prefer to use chatbot support, and although it cannot replace human technical support completely, it can offer significant cost savings and improve response times for common inquiries while delivering a great user experience. Chatbot support can even integrate well with human technical support,

by collecting basic information about a request to determine the problem or request's general nature before connecting the customer to the best tech support department.

A focus on mobile integrations is no longer enough to provide a great user experience. There are new customer touch points that banks and credit unions will need to address. The industry has seen a few large financial institutions offer voice recognition software integrations, but this year will see more community banks and credit unions offering theses services. As Amazon Echo, Google Home, other smart speakers and wearables are becoming more prevalent, there is more incentive than ever for financial institutions to integrate with these devices to conduct simple tasks, such as checking account balances, making transfers between accounts and checking the due dates and making payments towards recognized bills. As a result, voice recognition integrations with banking apps will become more prevalent.

A Holistic Approach to Providing Solutions to Customers

Over the last several years, many financial institutions have placed an inordinate amount of attention to the millennial generation, without fully acknowledging that most generations are getting acclimated to today's technological advancements and are also demanding more solutions to simplify their lives. While the millennial market (and now Gen Z) may have inspired fintechs and financial institutions to step up their game in terms of innovation, generations across the board are now making a concerted effort to remain relevant by adapting to today's environment, and consequently are demanding a more intuitive, automated and easy-to-use experience such as those provided by Amazon's Alexa. Therefore, financial institutions must invest in technology solutions that anticipate and address the needs of consumers of all ages. This goes beyond providing just basic account information via speech recognition to actually having an interactive conversation that adds value to the user whether it is paying their bills for them or helping them to manage their cash.

In closing, 2018 is likely to be the year that the financial industry observes the most change and innovation in the payment experience. The industry has access to significant technology developments from outside industries, and has a golden opportunity to find ways to deploy this technology to improve consumers' experiences

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and add value to their customers across all touchpoints. This opportunity is especially relevant in FI-centric payments, which is experiencing increased competition from fintech players that offer a better experience for consumers. In order to remain competitive, financial institutions need to take action in the coming year to re-energize their payment experience and deliver greater value to their customers.

Fran Duggan is CEO of Payrailz, a digital payments company offering advanced bill payment and money transfer solutions to banks and credit unions. For more information, please visit Payrailz.com

Fintech and Payments Trends to Watch in 2018
By David Foss

Financial services have recently been in the national spotlight for everything from crypto currencies to data breaches – and a lot more in between. There is a shifting focus toward an enhanced customer experience, automation and security that has ushered in many new and interesting technologies. As the industry continues to keep pace with change and disruption, financial institutions must sift through the hype and pay attention to the most impactful and relevant technology movements in order to remain competitive. Below are some areas to watch in 2018.

Channel Strategy

Today's highly competitive landscape coupled with consumers' rising digital demands requires financial institutions to adopt a more comprehensive and diverse channel strategy. In 2018, digital account opening tools will become a top priority for financial institutions, and an advanced digital onboarding offering will become table stakes by 2019. Banks and credit unions will work to deliver a simple digital process that provides account onboarding as well as easy access to customer service through online agents and call centers.

The rise of self-service in banking will also persist, making digital elements even more prevalent in branches. Tablets, digital signage, and interactive teller machines (ITMs) will increase in both adoption and use cases. As self-service grows, regional and community institutions can differentiate themselves by incorporating a personal user experience in their digital services. A relationship-based experience will be driven through a more conversational workflow, allowing for more sophisticated services to be offered away from the branch.

Lending

Commercial lending continues to be an area of frustration among community and regional institutions, as their processes often remain disparate and cumbersome. This year, banks and credit unions will take advantage of new workflows and automations that enable them to offer the fastest paperless commercial lending options. Such

efficiencies will allow bankers to manage the entire life-long customer relationship, incorporating the ability to seamlessly offer new loans and services that solidify profitable relationships.

An accelerated adoption of CECL solutions will automate more lending reporting as the compliance date draws even closer. Financial institutions should strive to run their CECL solutions in parallel with their current ALLL for 18-24 months prior to their go-live date to ensure a smooth transition.

Risk and Security

As cyberattacks continue to expand in scope and sophistication, cybersecurity will remain a major area of focus this year. Financial institutions will place heavy emphasis on multi-factor authentication and their cyber resiliency and breach protocols to better protect customers. Institutions will invest in new solutions to mitigate risk such as early incident detection solutions. Also expect to see financial institutions conducting more thorough and consistent incident response testing in conjunction with business continuity plans.

To make these cybersecurity efforts manageable, more financial institutions will augment information security officer positions through outsourcing. It’s often challenging and costly to find the talent necessary for such a critical role; by outsourcing the position, banks and credit unions will be able to benefit from top expertise more easily and cost effectively. Institutions that require information security officers to wear multiple hats, including managing IT, will lead the early majority.

Real-Time Payments

Both P2P and real-time payments will continue to gain momentum in 2018. The Clearing House will keep expanding its RTP network, nearing the point of critical mass. Zelle will also gain momentum and begin to demonstrate results for its partners in the P2P payments space. Expect to see Zelle grow beyond just P2P and provide valuable new use cases in B2C and C2B. Financial institution-based P2P payments will become more user friendly and socially engaging to compete with non-bank competitors such as Venmo, Apple Pay, and Facebook.

As real-time payments make significant progress toward reaching ubiquity within the next two years, the industry will start to adapt a real-time banking infrastructure. Consumers don't only expect instant service from payments, but all aspects of their banking experiences. Savvy financial institutions will provide capabilities that are well aligned with the evolving expectations of financial institution clients and how they want to do business.

Innovation

As technology continues to advance, we'll see institutions experiment with new, innovative ways to bank. Artificial intelligence (AI) capabilities will move from the planning stages into deployment. Financial institutions will likely first explore engaging with customers in a more impactful way such as using bots for conversational commerce. Fraud prevention will lead the way from a cost savings perspective.
There will be an increase in use cases for distributed ledger technology this year as financial institutions collaborate with various tech companies and networks to develop permissioned blockchain. Common examples will include cross-border payments, smart contracts, and loan onboarding and decisioning.

To support these evolving areas of financial services, more banks and credit unions will partner with financial technology companies to help them successfully navigate the changing waters. There are simply too many shifts occurring and initiatives building for most institutions to handle on their own; it will be critical in 2018 and beyond to find trusted partners that can help institutions strategize, remain relevant and successfully compete.

David Foss is president and CEO of Jack Henry & Associates, Inc.® (NASDAQ:JKHY) is a leading provider of technology solutions and payment processing services primarily for the financial services industry. Its solutions serve approximately 9,000 customers nationwide, and are marketed and supported through three primary brands. Jack Henry Banking® supports banks ranging from community banks to multi-billion dollar institutions with information processing solutions. Symitar® is a leading provider of information processing solutions for credit unions of all sizes. ProfitStars® provides highly specialized products and services that enable financial institutions of every asset size and charter, and diverse corporate entities to mitigate and control risks, optimize revenue and growth opportunities, and contain costs.

The Disruptive Power of the Platform: Talk or Transformative?
By Eric Hathaway

Pundits are decrying traditional banking as outdated, inefficient, and out of touch with today's consumer. They cite the rise of fintechs as evidence of the need for legacy financial institutions to change their strategic direction.

Even regulatory agencies have chipped in their opinions, with the Office of the Comptroller of Currency reportedly saying, "Making strategic moves to innovate with new technology-based banking involves assuming unfamiliar risks, but banks may face heightened risk if they do not innovate."

There is a clear push in the industry for innovation and technology advancement, but the question is, how? The financial industry has lately seen broad-based discussion about the transformative power of the platform. Is that the next innovative tidal wave to affect our industry?

What, Exactly, is a Platform?

Many software and service providers actually refer to their offerings as "platforms", but in the context of a strategic direction one of the most succinct definitions comes from Sangeet Paul Choudary, "A platform is a plug-and-play business model that allows multiple participants (producers and consumers) to connect to it, interact with each other and create and exchange value."

This is critical to understanding the disruptive nature of platforms: they are predicated on open structure that enables all participants to derive value. Successful platforms are more than a connection, though. Successful platforms attract the right customers because they provide the services those customers desire, and they make it easy for consumers to engage with producers.

Where is the Value?

In the traditional financial model, the customer is receiving value from the bank in the form of products and services that are secure, protected and meeting a need that the individual has. In exchange, the bank receives value from the consumer in the form of interest income or fees associated with services.

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But beyond that interest income or fee income, banks aren't really positioned to bring in new revenue streams without a shift in strategy. That shift? Platform development.

In the platform model of banking, the key elements of "plug and play" and consumer/producer value exchange are the drivers of success. Banks that adopt the platform approach must provide an open environment where third party specialists can share their products/services with consumers.

The value for consumers lies in that uninhibited access to a network of solution providers. That access saves time and effort, and prevents redundant data entry requirements. Customers get superior experiences through the choice and flexibility of offerings on the platform, without having to manage numerous different relationships with different companies.

The value for the banks that develop and maintain the platform comes from consumer feedback and non-interest, non-fee based revenue streams. By opening platforms to those third-party producers, banks can create revenue-sharing agreements that are not reliant on the traditional models of interest and fees.

For producers on the platform, value comes from both sides. They get the value of a bank's brand and reach, as well as potential customer acquisition with less risk and costs. From the consumer, they will get value in fees and tool/service utilization. They also get the value of consumer feedback, enabling producers to refine and iteratively enhance their product to meet the most pressing need(s) of their audience.

Is the "Platformification of the Industry" Really Happening?

Consumers have enthusiastically adopted platforms in a number of industries. Telecommunications saw major platform disruption when Apple introduced the iPhone and its App ecosystem; retail saw the same shift as Amazon moved from an online bookseller to the premier one-stop-shopping destination for millions of consumers.

Is banking ready for the platform shift? Yes and no. There is certainly conversation around the platformification of the industry, but the realities of that strategic transition pose challenges for all FIs. In a recent whitepaper, Cornerstone Advisors identified some major challenges to the platform strategy, of which these three stand out:

- Becoming a platform is hard and time consuming.

- Few FIs have the resources to build a platform.
- The regulatory environment is not supportive.

There has been movement towards a platform approach, albeit slow. One notable example of a platform-esque approach has been in the mobile payments space by Zelle®. This mobile payment application is available through many major retail banks, and is meeting the high consumer demand for an on-demand, immediate mobile peer-to-peer (P2P) payment option.

Competitors in the space, like Venmo and Square Cash, were capitalizing on consumer demand. Zelle saw a market opportunity and accelerated the payment timeline by partnering directly with the FIs where consumers held their accounts, dropping payments processing times.

The partnership play for Zelle comes in through bank apps. The individual retail banks who are working with Zelle are making the payment app available as an integral part of their larger mobile offering. This reduces customer friction, increases adoption and improves experiences. Just like a platform is supposed to do.

Other examples of the shift to platform strategy include:

- BBVA's API Market
- Citi Global API Developer Hub
- Capital One Developer Exchange

The Customer has Spoken

The shift is slowly happening. Banks and other heavily regulated FIs have a responsibility to themselves, their customers and their shareholders to proceed with a measured pace, weighing the implications of platform development against the benefits and potential detriments of the shift.

But FIs also have a responsibility to continue innovation, and consumers have clearly shown they are embracing platforms that offer them increased flexibility, speed, and convenience. Elements of the platform shift are already underway, and there are certainly more initiatives in development at leading FIs. How far they extend remains to be seen.

Strategic shifts, like the transition from traditional financial institution to platform provider, will take time, resources, energy, and a new mental paradigm. FIs that move

forward and take action towards the financial platform of the future will be those who thrive in the new model.

Eric Hathaway is the vice president of marketing at Zoot Enterprises, a global provider of advanced origination, acquisition, and decision management solutions. He has more than 20 years of global experience in strategic marketing, product marketing, and marketing strategy across the financial services, technology and telecommunications industries.

Establishing a Successful Partnership Between a Financial Institution and a Fintech
By Matt Johnner

Our society associates financial institutions with stability and trust, while fintechs typically epitomize change and innovation. These two opposing forces may seem to have very little in common, but that does not mean they can't successfully work together to achieve a common goal.

According to PricewaterhouseCooper's (PwC) 2017 Global Fintech Report, over 80 percent of financial institutions believe business is at risk to innovators. That may be true if the innovator is attempting to stand alone or replace financial institutions altogether. However, by partnering with a financial institution, innovators can work with a bank or credit union to solve an issue or meet a need.

Additionally, PwC reports that 82 percent of financial institutions expect to increase partnerships with fintechs in the next three to five years. This shows that financial institutions are willing to explore the innovative world of financial technology in order to provide better service to their customers, or scale a product outside of their traditional market.

Benefits of Partnerships between Financial Institutions and Fintechs

By partnering with a fintech provider, financial institutions improve upon the things they are already doing well. Technology can be used to solve an issue, update an existing process or enhance customer interactions. Fintechs have a lot to offer financial institutions, such as advanced, forward-looking technology and a fresh, outside perspective.

Of course, the partnership is just as beneficial to the fintech provider. Fintechs may hope to disrupt the industry by creating an unparalleled user experience, but solely focusing on this is not enough to be successful. A fintech provider without a financial institution to serve often ends up biting off more than they can chew.

With the implementation of a fintech service, financial institutions can differentiate themselves from other lenders in the space. By automating services and providing consumers with an innovative and efficient tool to make their lives easier, the financial institution becomes more competitive while also broadening their market. And,

customers receiving a positive user experience from their bank or credit union will likely choose to stay with that bank or credit union.

A successful fintech partnership can also provide an additional revenue stream for the financial institution. Some fintechs can offer financial institutions modern, user-centric services that fulfill consumers' needs while simultaneously charging a small fee on transactions that goes straight back to the financial institution. Think about how many paper checks still exist in unique industries or processes.

Tips to Create a Successful Partnership

Let's start with an unsuccessful partnership; this is one that is created with the purpose of looking for a problem rather than solving one. A successful partnership begins when a fintech and a financial institution see a solution to an existing problem and need each other's help in bringing that solution to life.

A smart fintech understands that a financial institution's brand is extremely important to its success and cannot be jeopardized. Fintechs must approach potential partnerships with a thoughtful, conservative mindset. A failed fintech reflects poorly on the financial institution and its brand.

An equally important factor in a successful partnership is the financial institution ensuring its fintech provider has a strong background in banking. While fintechs offer unique, outside perspectives, they should also understand the fundamentals and the complexities of banking. The best fintechs have established bankers as part of their team or board of directors who understand the banking industry and the sanctity of its brand, needs and technology.

In addition, fintechs should leverage the financial institution's existing products if speed to market and velocity is important. The solution must seamlessly integrate into the existing landscape and utilize the financial institution's pre-existing product or distribution to solve a problem.

Lastly, open communication between the financial institution and fintech provider is key. The two should take part in an open discussion at the beginning of the partnership to determine goals and expectations. As previously mentioned, each party has a very different way of thinking, so it is imperative to discuss the definition of success early in the relationship.

It is important to remember that fintechs and financial institutions should not be competing with each other; they should be supporting each other. The best partnership is one in which both the parties achieve a goal that helps improve processes, reduce costs and enhance the user experience.

Matt Johnner is president and co-founder of BankLabs, a national provider of innovative, mobile technology products that help community banks improve efficiency, increase time for relationships with customers and create marketplace options that expand business opportunities. BankLabs believes that community banking is a way of doing business, not a size. For more information, visit www.banklabs.com*.*

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The Danger of Defining Digital by Devices Alone
By Mark Medlin

Leaders in the financial services industry are bombarded daily with suggestions, recommendations and theories about digital strategies. Too often, however, the definition of digital is limited to devices, such as laptops, smartphones, or tablets. Digital is not a single type of interaction confined to a particular device, but rather an overall experience. Approaching digital in this way requires that every financial services organization, and especially every financial institution (FI), evaluate their customer-facing services with the understanding that digital is how we live rather than a single part of our lives.

For example, consider payments. With the advent of credit and debit cards came the vision of a cashless society. When the hype around mobile wallets began to build, this same vision emerged again, yet cash still remains king for many consumers around the world. Recent research published by the United States Federal Reserve confirms that cash remains the most frequently used payment instrument in America. This trend is unlikely to weaken in the near term as millennials (25 to 34-year olds) generally have a preference for cash and an aversion to credit.

The predictions of a cashless society were not made without merit or by individuals that lacked experience in the industry. The same can be said about those who heralded the death of cards and cash at the hands of the Three Pays (Apple, Samsung, Google). The mistake in both cases was thinking of the technological revolution in a singular way. Digital is now dynamically defining the world, and that definition includes cash, cards, branches, virtual and logical customer interactions, and every single element of consumers' lifestyles.

The same nearsightedness that prompted the false predictions of a cashless society can be found in discussions about the branch. The branch is not going away because the world now has more smartphones than people, but instead the branch is being digitally transformed along with everything else in our lives. Interestingly, the evolving relationship FIs have with their ATMs provides evidence that banks and credit unions are beginning to understand that digital transformation is more than online and mobile delivery of financial services.

In the digital world, the dated user interfaces of the “cash and dash” ATMs have become detrimental to the overall brand position of FIs, prompting many institutions to revamp these machines altogether. In the place of ATMs, many banks and credit unions are deploying Interactive Teller Machines (ITMs), also known as Virtual Teller Machines or e-Tellers, which represent the mainstream effort to digitize the physical delivery of financial services. FIs that have taken the steps to deploy ITMs along with other digital interfaces in their physical operations understand that the forecasts about the “death of the branch” are a red herring. These organizations know that they shouldn’t focus on diminishing branches, but rather on how they can enhance the branch to best meet consumers’ digital needs. The new generation of ITMs is a step toward better serving a wider audience.

Though there are more financial service organizations that understand digital as context rather than content alone, too many still operate their IT infrastructures – and particularly their testing environments – the same way they did last century. Their legacy testing processes remain centered on the desktop workstation, which results in senior testers spending far more time manually running tests than designing them. This inefficiency is further exacerbated by repetitive processes, limited collaboration and ineffective utilization of resources.

The Evolution Of ATM Fraud

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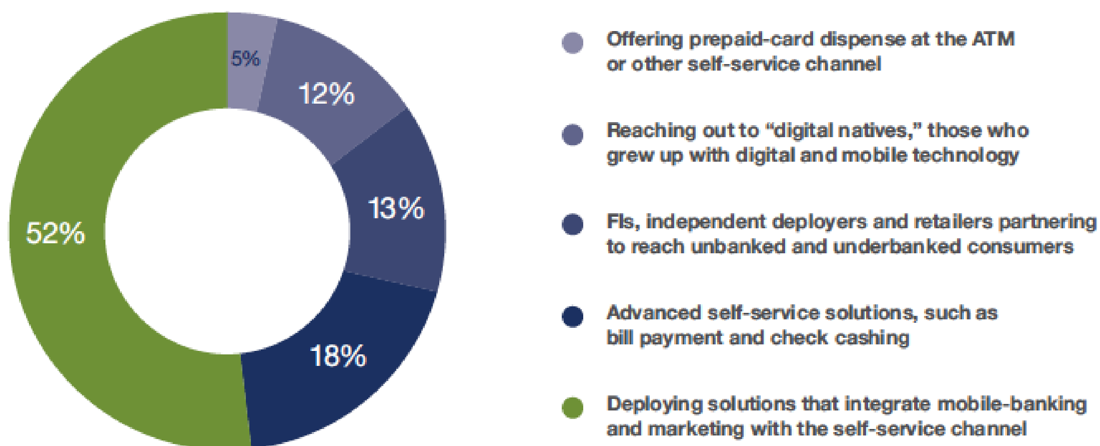
As digital continues to redefine the industry, financial service organizations must redefine how they approach testing or risk significant brand and reputational damage. Continuous testing must become the norm as development models continue to evolve in order to bring new services and products to market faster. Enterprise testing platforms that incorporate automation and virtualization are being implemented at some of the leading global financial services brands to support this new normal. Those that achieve this first will have a considerable advantage over those that arrive later.



Dawn Haynes of Software Yogini paraphrased the opportunity nicely, saying, “There’s no such thing as doing more with less. You do less with less. But when you can be more efficient by reducing redundancy or automating effectively, the benefit received from…may cost less in terms of time and expenditure. There’s the real story.”

Mark Medlin is the chief technology officer and co-founder of Paragon Application Systems, the leading independent testing services provider for the financial services industry. As co-founder, he has held many positions within the company and is currently responsible for aligning the company’s products and solutions for clients’ strategic initiatives.

M&A Consideration: Politics or Efficiency
By Phil Moore

With the start of the New Year, many businesses are catching the "merger-bug," and none more so than the financial services industry. Banks and credit unions across the nation, especially with the recent passage of the tax reform bill, are looking at their economic forecasts and considering what investments they can make to drive long-term, sustainable growth. And, what better way to do this than by expanding operations through a merger or acquisition?

Once the merger-bug sets in though, most financial institutions have a tough time executing the process quickly and efficiently. Based on our own experience guiding clients through the process, we have seen that some of the most successful mergers are the sole result of diligent pre-planning, thoughtful identification, good communication and being open to learning from other's experiences.

Planning For Success

The first step towards executing any successful merger and/or acquisition (M&A), in addition to having the buy-in from all the involved parties, is to ensure both institutions have their internal operations efficiently running *before* the merger takes place. This is artfully important for organizations within such a highly regulated industry as financial services. Before a bank proceeds with a merger, they should not only confirm that their processes and systems are in good order, but that their team also has the capacity to handle the additional workload that accompanies combining two financial institutions.

The demands required during an M&A can range anywhere from handling increased customer transaction volume to the ability to rationally determine what processes or systems should remain and which ones should be let go. Consider that for a moment. Not only will employees be required to handle an increased workload of "new" customers coming into their branch, they'll also be operating within an entirely different organizational and (potentially) technological framework. If planned properly, however, current and incoming teams will be well-prepared to handle the work *and* organizational changes before they are executed.

Understand & State Your Goals

Before planning and executing an M&A, it's important for bankers to have a concrete idea of what they are looking for, as well as what they are not. By narrowing one's goals, bankers create a base-line for their initial search and discovery of potential targets, eliminating poor fits early on in the process.

Along with lines of business, geography, financial compatibility, workforce composition and customer expectations, a comprehensive assessment of the cultural alignment between two organizations is critically important. Attempting to combine two mismatched cultures is a steep challenge to overcome, and not one to be taken lightly. Not only does it add to the workload of executive leadership, but it significantly diminishes the value of the effort. Having similar mindsets with regards to governance processes, compensation and even customer service philosophies and feedback define the successful integration of two organizations, and serve as difficult barriers to overcome if differences exist.

Open Communication Delivers Long-term Success

No different from any other relationship, interpersonal, corporate or otherwise, open channels of communication directly between both parties is critical to a successful M&A. Sincere, honest dialogue is the foundation for any M&A, and establishes the trust and rapport necessary for executives to address any potential issues, bumps or hurdles that naturally occur along the way.

And that's not only during the due diligence process. It's also necessary for bank leadership to be candid and honest throughout the entire arrangement, even during initial talks. Keep in mind that an M&A is a stressful experience for both parties as emotions are high amongst leadership and employees. Some parties within the organization may not be as open to the M&A as others, so keeping lines of communication open ensures both parties remain on the same page and can work through key details as they become agreed upon and documented.

Efficient Execution Top to Bottom

An effective M&A starts with having the courage to make tough decisions, coupled with the right amount of patience and compassion to set the pace and expected level

of change for any given situation. Employees will look to bank leadership to set the tone for any M&A right from the beginning, and as mentioned earlier, requires that bankers identify their goals early in the discovery process. Employees will respond to these cues and their reactions will define how operations are conducted throughout the entire process. Following the agreed upon plan helps set appropriate expectations, and eliminates inconsistencies, which brings value by eliminating uncertainties that inevitably arise throughout the M&A.

Make Operations Decisions Early & Often

Even though bankers must establish specific goals early in the M&A process, that must not complicate other important organizational and technological considerations. Combining two operational teams and technological infrastructures requires that in-depth analysis and evaluations occur throughout the process. Having leadership make decisions based on which team is acquiring the other or simple internal politics is a counter-intuitive approach. Bankers should instead focus on making the best decisions for the institution they are targeting to become – taking the best of both organizations and ensuring the most useful systems and processes are carried over.

Surround Yourself with the Right Partners

Perhaps the most important step towards a successful M&A is to leverage any relationships you might have with those who have previously been a part of a similar process. The financial services industry is filled to the brim with individuals who have been through an M&A, particularly within the past few years, and their experience is a perfect sounding board for any current initiatives. Having a trusted resource to field thoughts, concerns and ideas off of is *invaluable*, and identifying that resource early in the process can be a game changer for any bank.

Keep in mind that this will require an open mind on the part of the current bank. One must be able to listen and learn to truly utilize any feedback partners have to offer. Doing so though will ensure a smooth transaction for any financial institution.

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Active Authentication: Perfectly Balancing Security and Customer Experience
By Gerhard Oosthuizen

It's been two years since the U.S. migrated from magstripe to EMV chip cards. While this step has, according to Visa, brought down credit and debit card fraud levels, it has also led to an increase in card-not-present (CNP) fraud. The challenge for bankers is that the implementation of stronger security measures is often at odds with the delivery of a smooth and efficient digital banking experience for customers. This has a bottom-line impact for banks, as false declines cost US online merchants $8.6 billion last year – $2 billion more than the value of the fraud that risk-based systems helped prevent, according to BI Intelligence estimates.

So what's the answer? Financial institutions must identify ways to design a secure banking environment for customers without disrupting the user experience and risking transaction abandonment. The most effective mobile banking solutions are found at the intersection of customer convenience and security.

The long-term benefit of this balance is that with the right level of user-friendly security in place, banks can do more with their digital platforms. The more digital services a bank offers, the more customer touchpoints it gains. However, these services need to be secure, and visibly so.

Seeing is Believing

The best way to achieve visible security is to introduce active authentication, which requires a real-time response by the user to a push notification sent to their mobile phone every time they wish to log into their online banking, do a transaction, or perform another sensitive action. Active authentication means that users are engaged and feel in control during transactions, which gives them a sense of empowerment. This empowerment builds trust, leading to more transactions. After all, research by RSA has shown that most customers prefer to be involved and engaged in the authentication process.

Another benefit that arises from active authentication is that these more frequent interactions with customers ultimately increase loyalty. In the simplest terms, more customers who are more engaged mean a better bottom line for financial institutions.

Building their applications on the right digital security platform will enable financial institutions to innovate faster, which in turn results in a competitive edge in the market. When security is assured, financial institutions can focus their time on developing more features to enhance the customer experience. This can be turned into a distinct revenue advantage with the right strategy – including more aggressive marketing – since competitors with substandard platforms will not be able to offer the same services at that level.

More transactions drive greater returns, and reduce costs by empowering its customers to interact with their bank in different ways. In short, a better user experience means customers will do more with the bank. Providing customers with new capabilities on their mobile phones – especially ones that competitors don't have – leads to higher engagement, and higher profits.

The Secure Cure

In determining what type of mobile security to offer, bankers should understand that trust and intimacy with customers are essential, but will only generate meaningful ROI if the user experience is a low-friction one.

In Europe, the Revised Payment Services Directive (PSD2) dictates that industry players must implement Strong Customer Authentication (SCA), which requires banks to authenticate users via a device ("something you have") plus a PIN ("something you know") or biometric feature ("something you are") when making mobile payments. In the U.S., the National Institute of Standards and Technology (NIST) has also issued recommendations to government agencies and private businesses for selecting, implementing, and using centralized management technologies for securing mobile devices. Furthermore, the Federal Financial Institutions Examination Council (FFIEC) provides guidance regarding mobile banking and payments for its examiners to use in their assessments of financial institutions' mobile security measures. These examples offer beneficial best practices to help financial institutions more easily identify customers and ensure that sensitive financial data remain secure.

With strong, multi-factor authentication in place, a mobile banking customer feels comfortable with the interaction and knows the bank will provide confirmation. Behind the scenes, cryptographic algorithms confirm that a transaction could have only been

completed by the person in question. The customer is able to simply tap “accept” or “reject” to confirm or deny the transaction.

According to Mastercard, 39 percent of customers abandon a card after a false decline, while a quarter decrease their usage of that card. Many card-holders will avoid transactions altogether because of security concerns. By creating a smoother, more predictable process, financial institutions are able to lower their transaction abandonment rates. Banks must strive for enhanced security, greater efficiency and broader offerings, including new products such as value-added services.

To boost a bank’s bottom line through a better digital platform, it all begins with the right balance of convenient service and secure digital customer identity.

Gerhard Oosthuizen is the CIO of Entersekt. Gerhard provides the organizational and operations heft to turn vision into reality. His role at Entersekt represents the CIO function in its purest and most exciting form. Entersekt’s purpose is, after all, to design and build high-performance, market-leading software and support systems for an international customer base with extremely high expectations.

2018: The Year of "Compliance First" Innovation & Tailored Customer Experiences

By Suresh Ramamurthi

Each year, consumers expect more from their financial institution, demanding faster and more innovative services, similar to what they experience with other companies, whether that's Google, Amazon or Netflix. The financial industry realizes this, as 89 percent of financial services executives believe it is important for their business to catch up to industry technological advances over the next year, according to a recent LinkedIn survey. Yet, several factors have made it difficult for financial institutions to accomplish that. Factors such as, a lack of conducive culture for innovation, constraints posed by legacy systems and a lack of clarity on where to innovate have hindered innovation efforts for traditional institutions, according to Capgemini.

However, in 2018, many financial institutions will overcome those challenges by leveraging technology that supports improved risk management techniques and greater insight into customer needs. This will result in faster and more focused innovation by traditional financial institutions.

Using Machine Learning for Real-Time Risk Management

Given the proliferation of digital banking channels, today's institutions have access to vast amounts of customer data and more institutions will begin harnessing the insight that data provides in their risk management efforts. To do this, banks and credit unions will have to ensure they can access data in real time and from there, promote real-time monitoring of that data. This means that disparate systems and siloed data repositories should be eliminated, as financial institutions need to have a comprehensive view of their customers in order to analyze potential risks.

Centralizing systems and enabling access to a unified, real-time view of data will be necessary for supporting scalable, real-time risk-scoring. Over the next year, more financial institutions will harness the potential of real-time data to analyze financial activity within seconds and identify any possible concerns. Leveraging this knowledge, banks will begin designating risk levels for specific types of activity based on pre-determined criteria, opening the door to machine learning capabilities.

Using large data sets, machine learning can identify complex, nonlinear patterns within the data set and create accurate risk models that only improve their predictive power over time. This scalable approach to risk management will help financial institutions improve operations, making them more efficient, cost effective and compliant. Ultimately, banks will take this “compliance first” mindset using machine learning-enabled regulatory technology, or “regtech,” and develop new products and services with compliance already built in. In short, machine learning will empower banks to innovate while alleviating certain regulatory burdens.

Anticipating Customer Needs with Machine Learning

Furthermore, access to real-time data offers banks unprecedented insight on their account holders, revealing things like customer spending behavior, payment history and even online-browsing activity.

In 2018, the industry will likely see more financial institutions use machine learning to gain even deeper insights into data and leverage the technology’s predictive power to anticipate customer needs. As a result, financial institutions will be able to better focus their innovation efforts and provide relevant value to their customer base. This will be crucial, as more than 20 percent of traditional financial institutions lack clarity on where to innovate, which holds them back from implementing new technological capabilities, according to Capgemini.

Before long, financial institutions will start incorporating artificial intelligence (AI) within systems to continue improving the customer experience while capitalizing on new revenue opportunities. As financial institutions hone their machine learning capabilities, they can feed that data into AI systems for even deeper learning and offer personalized suggestions or new product and service recommendations to customers. For example, a bank that uses AI can determine that a customer spends hundreds of dollars on flights each month and from there, the system could present options for credit cards that offer airline or travel rewards. Or, perhaps a customer receives a large tax return. AI can present options for the customer to invest those funds based on his or her unique risk profile. Over the next 12 months, a growing number of financial institutions will deploy AI for simple customer interactions, but eventually, applying AI effectively to enhance and personalize the customer experience will be necessary to compete in the marketplace.

Many of the efforts put forth by financial institutions in 2018 will be focused on finding new ways to provide value for customers. While machine learning and AI technologies will play an important role, application programming interfaces (APIs) will also be vital.

Faster Innovation through Standardized APIs

As mentioned above, machine learning will help financial institutions anticipate customer needs. Yet, instead of wasting product development efforts, time and money on a solution that addresses a specific customer need, financial institutions will start using APIs to assemble various solutions from multiple vendors to ensure customer needs are quickly met in the most seamless way possible.

The entire industry will also make significant progress toward standardizing APIs, which means that developers and vendors will have to follow a certain set of guidelines when creating APIs. With a common standard for APIs, each organization that integrates them would use the same interfaces, streamlining the deployment of APIs. As a result, integrating new solutions is faster and less costly, making it easier for financial institutions of all sizes to innovate.

Finding new ways to make customers' lives easier and delivering a truly tailored banking experience will help drive customer satisfaction and loyalty into 2018 and beyond. The availability of innovative technology like AI and APIs makes it possible to expand the value financial institutions can provide to customers and will play a critical role in helping institutions remain competitive long-term.

Suresh Ramamurthi is chairman of CBW Bank and serves as its CTO as well. He leads CBW Bank's initiatives to support and foster innovation including working with financial services start-ups. He is also founder and serves as CEO of Yantra Financial Technologies, a fintech company focused on designing, developing and managing banking and electronic payment systems.

Digital Banking Needs More Strategy
By Ruth L. Razook

What should the number one challenge be for financial institutions in 2018 and beyond? Facing disruption! Sure, FI's have started tipping their toe in the water, talking about the disruption to the financial industry, however few have ventured into it. What do we mean?

Global investments in FinTech more than tripled in 2014, reaching more than $12 billion. In comparison, banks spent an estimated $215 billion on IT worldwide in 2014, including hardware, software, and internal and external services. Established Financial Service providers are starting to engage with FinTech providers to provide the emerging innovations. Banks must embrace change. And that change right now is the digital revolution, not merely preparing for the regulators and waiting for the next interest rate hike.

RLR Management Consulting performed a nationwide survey in 2017 of over 50 Financial Institutions (FIs) to determine the knowledge, readiness and strategic thoughts of the financial institution marketplace. In this survey, we asked participants to share insights into where they saw challenges and opportunities for their FI moving forward. Results from that survey included:

- 72% of FIs have their Online Banking Product provided by their core provider, while 26% have Online Banking provided by a third party, and 2% created and managed by IT staff (scary)
- 65% of FIs have their Mobile Banking Product provided by their core provider, while 33% have Mobile Banking provided by a third party, and 2% created and managed by IT staff (scarier)

We saw a slight increase in the number of third party organizations outside of core providers for online and mobile banking solutions. The increase was between 5% and 10% in both areas. FinTech providers are consistently trying to provide products and services that decouple the digital experience from the cost. There are several new entrants to the space over the last twelve months.

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Question: How differentiated would you say your online and mobile banking interfaces are versus those of your competition?

- 6% use the same platform as their competitors
- 63% said our functionality is basically the same as everyone else
- 27% said our functionality is a little different than everyone else
- 2% said our functionality is markedly different than everyone else
- 2% said our functionality is vastly different than everyone else

Some common platform challenges the FI have were noted:

- FIs find it difficult to differentiate themselves from a service perspective as they move towards a more outsourced and ASP service environment for their core services
- Transaction per item fees make up an increasing percentage of core providers monthly revenue (transaction activity can make up as much as 50% of the invoice from core providers)
- FIs can be dissuaded from unique solutions by high interface fees or potential degradation of service

The digital experience continues to increase in importance:

- Traditional old school payment methods show decline over the last 5 years
- Use of card payment types, both debit and credit, continue to increase dramatically
- Electronic payments are still a minority but show nearly 50% growth over the last 7 years
- New technology payment capabilities continue to enter the marketplace and compete for share

Question: Does your FI have a specific strategy related to online commerce and shopping via the Internet?

- 23% said yes
- 77% said no

Not good. Banks need an online commerce and shopping transaction strategy!

- There has been a “bricks to clicks” shift in consumer and commercial behavior:
    - 75% of retail growth has been online since 2000
    - 8% of all retail sales have been online
- Consumers (especially millennials) will trade off location tracking for a 20% coupon at their favorite restaurant during happy hour
- A strategy offers a convenient one-stop-shopping experience that responds to the shoppers’ path to purchase
- Blend the offering between commercial and retail clients

Question: How concerned are you regarding emerging third party and alternative transactions providers?

- 60% said somewhat
- 23% said very
- 11% said not too much
- 6% said extremely

While some FinTech and alternative transaction providers are increasingly looking to partner, others are trying to displace FIs in the marketplace.

Disruptors are trying to build a case for the “Open Bank Movement” – they are trying to push the “archaic financial institution framework” by encouraging the adoption of more digital technologies. The Open Bank Project is an open source API and App store for Banks that empowers FIs to securely and rapidly enhance their digital offering using an ecosystem of 3rd party applications and services

Bottom line for FIs – you need to get with the program and consider developing your strategy to become part of the Digital Revolution.

Ruth L. Razook is Founder & CEO of RLR Management Consulting, Inc., a nationwide consulting firm for community and regional banks, assisting financial institutions in the areas of Operations, Technology and Regulatory Guidance. For more information visit www.rlrmgmt.com.

Top Ten Trends Impacting Bank Technology for 2018

By Jimmy Sawyers

"Far better is it to dare mighty things, to win glorious triumphs, even though checked by failure…than to rank with those poor spirits who neither enjoy much nor suffer much, because they live in a gray twilight that knows not victory nor defeat."
– Theodore Roosevelt

As the economy booms into 2018, driven by low unemployment rates, tax reform, record stock market gains, and a rise in consumer sentiment not seen in over 10 years, bankers will be emboldened to blaze new trails and invest in new technologies. Talk turns into action. Plans degenerate into hard work. Projects enjoy investments designed to improve bank performance at all levels of the organization and to give customers the tools and experience they demand. Inevitable as the rising tide, technology and change will advance, and banks and the customers they serve will benefit.

To rally bankers to charge the hill of opportunity and innovation, I offer ten predictions.

Prediction #1 – Cybersecurity Preparedness Gets Deeper and Broader as Bankers Scrutinize Their Providers

The battle to thwart cybercriminals continues in 2018 as threats evolve and bankers become smarter on how they approach this critical issue. Critical thinking will be applied as bankers step back and assess what the bank has done to protect customer funds and information and what must be done in the future to be responsible stewards of customer trust.

A bank's cybersecurity preparedness strategy should not be delegated to the lowest spot on the org chart or outsourced to a host of "we're the hammer, you're the nail" tech providers who are selling their solutions and not necessarily what the bank needs or requires. This multi-layered issue will demand a multi-layered assessment of the bank's enterprise environment with credible recommendations for practical solutions.

Limited external vulnerability scans and weak, redundant phishing tests from practitioners with questionable resumes will not cut it. Bankers must take a more in-

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depth, sophisticated approach to cybersecurity. Otherwise, they will spend a lot of money but leave their banks exposed to intrusions. If a bank has not had a truly independent assessment of its cybersecurity posture by a qualified firm, the management and board of directors has put the bank at risk and could pay the price, financially and reputationally, when a security breach occurs.

Making the critical choice of who is allowed access to banks' most sensitive systems and information, bankers will note that "Section 19 of the Federal Deposit Insurance (FDI) Act prohibits, without the prior written consent of the Federal Deposit Insurance Corporation (FDIC), a person convicted of a criminal offense involving dishonesty, breach of trust, money laundering, or who has entered into a pretrial diversion program, from participating in the affairs of an FDIC-insured institution." Additional weight is applied with FDIC Financial Institution Letter 46-2005 (FDIC FIL-46-2005), Pre-Employment Background Screening: Guidance on Developing an Effective Pre-Employment Background Screening Process. As a matter of national security, regulators will wake up and ban those convicted felons, the companies that employ them, and the firms that resell their services, from performing cybersecurity work for banks.

Further noting FDIC FIL-46-2005, "Institutions should verify that contractors are subject to screening procedures similar to those used by the financial institution. Consultants should be subject to the financial institution's screening process." Bankers who have wittingly or unwittingly engaged convicted felons will review their personnel policies, vendor management programs, and codes of conduct to determine where the breakdown occurred.

In 2018, high-performing banks will recognize cybersecurity as a business issue critical to the bank's reputation and future. Accordingly, investments will be made in first determining the bank's current cybersecurity preparedness before additional investments are made in the solutions necessary to mitigate cybersecurity risk.

Challenge Question – Has your bank purchased cybersecurity solutions before assessing your enterprise cybersecurity preparedness and vetting the providers?

Prediction #2 – Cryptocurrency Mania Gives Way to Sobering Reality

The hype surrounding cryptocurrency investments and the wild market fluctuations are unprecedented. Case in point, Dogecoin, a cryptocurrency originally created as a joke based on the Shiba Inu dog meme and one that hasn't released a software update in two years as of 12/31/17, had a $1 billion market cap as of year-end 2017.

The cryptocurrency market is changing second by second and will remain volatile throughout 2018. Bankers should continue to study the impact of cryptocurrency and the benefits of the blockchain while also understanding that the biggest cryptocurrency advocates are trying to supplant banks. Why is cryptocurrency popular? Because of the technology and the hope of a better, faster payments system? Or because cryptocurrencies are pseudonymous, favored by anarchists and those who deal in black markets, engage in illegal activity, and despise the central authority of any government because they don't want to be monitored or taxed?

At a recent cryptocurrency conference, several participants wore masks to avoid facial recognition technology. Can you imagine going to a banking conference and seeing bankers wearing masks? This conference also had exhibitors selling postcards of Edward Snowden. One can tell a lot about a group of people from their heroes.

Expect "pump and dumps" to continue in 2018 as a cryptocurrency gets hyped on social media only to tank as investors unload it after a short run-up. Quasi-insider trading abounds. Regulators face a steep learning curve and will be stumped as how to handle this problem. In an ironic twist of fate, the Consumer Financial Protection Bureau (CFPB) will be inundated with complaints about delayed funds transfers and settlements at cryptocurrency exchanges, among a host of other problems.

What is one founding principle that makes America great? The rule of law. It's difficult to know who will make the rules or who will enforce the laws with cryptocurrencies. And, for that reason, bankers should remain aware but skeptical. Cryptocurrency may be cool and represent a newer and better way to pay, but it might also represent a threat to capitalism and the end of our meritocratic society as we know it. Trustworthy adult supervision is needed and will be required in 2018 for cryptocurrency markets to stabilize and succeed. ***Challenge Question – Has your bank weighed the opportunities and threats of cryptocurrency?***

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Prediction #3 – Bankers Learn to Serve the Mobile-Only Customer

According to ComScore, users spend on average 69% of their media time on smartphones. This should come as no surprise as global users of mobile surpassed desktops way back in 2014. With 80% of internet users now owning a smartphone, the emergence of the "mobile-only" customer is a reality. This is not to say that the branch is dead, but wise bankers will realize that a significant segment of their customer base wants to use the mobile device and couldn't care less about traditional online banking via their PCs. Sadly, most bank technology providers are not supporting this trend.

Some online banking providers are on board and now offer bankers the option to enroll customers on mobile banking only. Most providers still charge the bank twice, once for the traditional online banking channel and a second time for the mobile user. These per user costs can skyrocket quickly as the mobile channel gains popularity and bankers find themselves the victims of double-dipping by their providers. Ideally, bankers give customers one interface for all digital services and providers support this and stop the double-dipping game. ***Challenge Question – Is your bank serving its customers on the channels of their choice, even if the choice is mobile-only?***

Prediction #4 – P2P Takes Off but Bankers Continue to Lag

Person-to-Person (P2P) payments volumes will skyrocket in 2018 as consumers embrace the ease-of-use and speed of this payment service, both using the ACH and debit card rails. Bankers wanting to deepen the customer relationship and further demonstrate the utility of the checking account will offer a simple yet quick P2P service.

While Apple Pay has been a huge disappointment in terms of usage (less than six percent according to PYMNTS.com) over the past three years, look for Apple Pay Cash to jump in the game in 2018. Users are required to update to iOS 11.2 and to implement two-factor authentication. Apple Pay Cash makes the P2P transaction as easy as sending a text message. Green Dot Bank (aka GoBank and Bonneville Bank) is handling the bank accounting behind the scenes for Apple Pay Cash.

A P2P service started by a group of large banks (including Bank of America, Capital One, and Wells Fargo), Zelle (formerly clearXchange but rebranded to Zelle in August 2016) will see low adoption by banks and low usage by customers. Case in point: My bank has "partnered" with Zelle for over a year but hasn't launched the service

yet. In the meantime, bank customers flock to third-parties while banks like mine try to figure out P2P, remain stagnant, and lose critical market share.

Inexplicably, Zelle doesn't even own its simple domain name, zelle.com. A law firm of the same name does. This questionable branding decision will cause the Zelle service to suffer and will create consumer confusion. Customers look for brands with simple names followed by a dot com, logical domain names that will not take one to a law firm site. Venmo (PayPal) and Facebook will see the majority of P2P payment activity due to their simple interfaces, ease of use, and familiar processes.

Further complicating the Zelle proposition, I reviewed the registration process from a major bank's website. The instructions and related links took me from the bank's site to Zelle but then back to the bank's site, a loop with all the unnecessary notifications that I was being directed to another site. The average consumer will bail on such a disjointed registration process.

Forward-thinking bankers will adopt P2P solutions that have easy registration and use the debit card rails for transaction speed. **Challenge Question – *How does your bank's P2P payments solution compare to Venmo or Facebook?***

Prediction #5 – Banks Get Branded

When my kids were just toddlers, I was always amazed by their eagle-eyes as they could spot the golden arches from miles away. This glowing icon, combined with the lure of a happy meal toy, served as a tractor beam for our car. Nutrition critique aside, this illustrated the power of branding in a big way and showed that one has three seconds to catch the attention of the customer. Once the attention is grabbed, the linkage of the expected customer experience does the rest.

Successful banks will devote new dollars to branding across all platforms, both digital and physical, to gain brand recognition and attract customers. ***Challenge Question – Is your bank's most innovative branding now relegated to stainless steel drink tumblers or does it have a digital marketing plan?***

Prediction #6 – Archaic Bank Processes Get Re-engineered

One of the most influential books of my early career was **Reengineering the Corporation**, a classic business tome that inspired positive change in many organizations.

In my work with banks, I see many processes that, while automated, should not exist at all. Other processes are ripe for change due to technological advances. Too many unnecessary processes are being performed in the name of compliance or security, yet do nothing to add value or help the bank's compliance efforts or security posture. It's time to review all processes and challenge them as being sound. A 20-year old audit or exam recommendation might no longer be applicable.

A great example in payments is the ridiculous requirement to sign when making a purchase with a debit or credit card. That squiggle I make on the signature pad means nothing. In 2018, Discover, American Express, and Mastercard will stop requiring U.S. customers to sign. Visa, a current holdout, will bow to consumer pressure and will follow suit. This is welcome news for businesses that depend on getting customers through the queue quickly.

Bankers will pause and ask, "Where are we?" in terms of tech spending ROI. Many bankers have purchased solutions that remain on the shelf or did not live up to expectations. The next questions that require thoughtful answers are, "Where do we want to go?" and "How do we get there?"

Expect successful banks to perform operations and technology assessments to determine their current state while employing strategic technology planning to determine the path forward and the way technology purchases will support the bank's business goals. ***Challenge Question – What processes in your bank are unnecessary or in need of re-engineering?***

Prediction #7 – Fintechs Deliver or Destruct

After years of losses at some fintechs, investors will require a return on their investments or will be ready to stop the bleeding and cut their losses. Fintechs that have overpromised and underdelivered will fail in high numbers in 2018. Those that have some value but cannot exist as standalone firms will seek to be acquired or will partner with banks, those very dinosaurs they once threatened to disrupt and supplant.

One example is Billguard which became Prosper Daily. Its parent, Prosper, the online lender, pulled the plug on the app in July 2017. Belying its name, Prosper has lost $210 million in two years.

The basics of business and financial performance hold true. Still, many fintechs will spark innovation that is contagious and leads to advances in banking and new products and services at bank tech providers. However, bankers and tech providers will adapt. The strong will not be displaced. The wise will survive.

Banks that partner with unsuccessful or shady fintechs may find themselves with unwanted houseguests that are hard to evict. Wise bankers will enter into these agreements with sound exit strategies and firm timelines. To paraphrase Benjamin Franklin, fintechs, like fish, begin to stink after a few years of unkept promises and no profits. ***Challenge Question – How does your bank measure fintech stability and performance?***

Prediction #8 – Vendor Management Gets Smart

Like it or not, bankers are dependent on a host of technology services providers. Choosing the right providers and vetting them properly, before signing a contract and thereafter, will rise in importance in 2018. Corporate tax cuts combined with the best economy we have seen since 2001 will give bankers more money to spend on technology solutions and consulting services to get the most out of these solutions. However, bankers will scrutinize their providers more than ever as competition increases.

Many community bankers have been oversold on the benefits of outsourcing and now realize it still takes smart and talented people to manage the bank's IT and operations, regardless of where the hardware and software are housed. Invoices will be reviewed and meetings will be held to measure the promise of outsourcing against the results.

The concept of vendor management will be re-defined as bankers question the value of paying a provider to review relatively meaningless third-party data center review reports and opining whether Microsoft is financially stable. Such exercises in futility will be replaced by hard-hitting questions and new requirements that prove providers are managed by ethical, stable people with proven track records of high performance. Such due diligence will cut through the façade of empty rhetoric and misleading marketing.

Bankers will demand more transparency from their providers, especially those that are new. Questions will be asked about where the provider is headquartered, where the bank's data is located, and where support calls go, as the offshoring trend reverses and U.S. bankers strike a more nationalistic tone in their choice of partners. For example, India's $160 billion IT industry laid off over 56,000 workers in 2017.

Open APIs, while a worthy goal, have proven difficult to execute for some. A beneficial byproduct has been the opening of constructive dialogue between bankers and their core providers. Bankers will be pleasantly surprised at what their core providers can accomplish when they are asked for solutions and compensated for providing them. ***Challenge Question – What vendor management tasks are you doing that, upon further review, appear to be a waste of time?***

Prediction #9 – Bankers Invest in Talent

Many of today's bank CEOs are the product of excellent management trainee programs that used to be a staple of successful banking organizations. Sadly, such programs appear to be relics of the past as some bankers have unwisely cut spending on developing their people. I contend this is often one of the primary reasons that banks sell, especially in rural communities – lack of management succession.

Akin to a major league baseball team not having a strong farm system to develop future stars, banks are suffering from a shortage of talent, and bankers largely have themselves to blame. In a tight job market this becomes more apparent, as it is more difficult to attract and retain good people. In the tech area especially, some bankers have failed to develop their people as they thought outsourcing would eliminate the need for in-house management and expertise, a grossly incorrect assumption that is hurting bank performance.

To illustrate the challenge banks face in recruiting new talent, the unemployment rate in December 2017 stood at 4.1 percent. Compare that to December 2009 when the unemployment rate was a staggering 10.0 percent. In the coming year, bankers will invest in their people, sending more to banking schools and continuing education while developing stronger in-house education programs. Employing people in the communities they serve will be the goal of bankers across the nation. In 2018, bankers will focus on the continued creation of jobs, the cure for many social ills and the salve

for what often divides us. ***Challenge Question – What is your bank doing to attract, retain, and develop talent?***

Prediction #10 – Artificial Intelligence Continues to Progress

Traditional brick-and-mortar retailers had a tough 2017 as over 7,000 stores closed (Source: Fung Global Retail and Technology) and 662 retailers filed for bankruptcy (Source: BankruptcyData.com) while more shoppers opted for online channels. Shares in Amazon were up 55% in 2017 as the popularity of the Amazon customer experience grew.

Amazon dominates the virtual assistant market and increased that lead over the 2017 holiday season as its Echo line proved a popular gift. In a pricing strategy that Apple should note, Amazon offers several Echo devices at a range of price points. Priced in the $30-$50 range, Echo Dot was the best-selling device on the Amazon site as it complemented the original Echo and its spawn of Echo Spot, Echo Buttons, and my favorite gift this year, my Echo Show, a device that incorporates video into the Echo experience.

Strategy Analytics, a consumer research firm, estimates Amazon's market share at over 70 percent of the smart speaker and virtual assistant space, despite challenges by Google with its Google Home devices.

Expect such Artificial Intelligence (AI) to progress from our homes to our cars in 2018, making voice recognition ubiquitous and further enmeshed in our daily lives.

Smart bankers will realize that voice banking is the killer app for 2018 and will invest in this technology from the contact center to the mobile device, and from the home to the office. From paying bills and checking balances to helpful voice alerts for card-not-present transactions and payment reminders, voice banking will be demanded and embraced by consumers. ***Challenge Question – What is your bank's AI strategy for voice banking?***

Summary

Throwing it back to Teddy, the Rough Rider himself reminds us that "Rhetoric is a poor substitute for action, and we have trusted only to rhetoric. If we are really to be a great

nation, we must not merely talk; we must act big." These are true words from a century ago that still apply today.

Here's to 2018, a year of action and accomplishment, hope and prosperity, and innovation driven by bankers and technologists brave enough to "dare mighty things."

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Fulfilling the Need for Continuous Engagement in Banks
By Chris Siemasko

In the minds of bank customers, the bank is a single company that helps them save and borrow money. They don't think like bankers do, in terms of channels and platforms. They want continuity between digital, contact center and branch.

Unfortunately, a streamlined process like this is rarely what the customer experiences. Perhaps they start to apply for a new account online, then go to a branch with questions only to have to explain their issues to a banker. This puts the burden of continuity on the customer, which is a big reason why *The Financial Brand* recently reported that 44 percent of customers are frustrated or disappointed with their bank.

The Financial Brand went on to report that 56 percent of customers were frustrated with conducting basic banking tasks such as making deposits and paying bills in real time. This is because there is a patchwork of bank technologies that are required to complete a customer activity just behind the surface of what the customer sees. And of course, each technology has its own corresponding support staff.

In addition to support staff, frontline bankers and customer service representatives also interact with those systems, and they often have a completely different view than the customers. Not only is the data different, but so is the process. The customer may be able to use their phone to do things like open an account, but the banker uses a green-screen application for the same tasks. With each party seeing different versions of the truth, speaking in a common language becomes extremely difficult.

In this environment, it's easy to think that technology is the problem. If only the technology were better for feature A or B, the bank would be more competitive. This leads most banks to double down on technology by adding more point solutions. Unfortunately, these additions only generate more silos. Plus, those silos rest on an unsteady foundation of systems that are getting older and more expensive to maintain. In fact, according to a Celent report in *Financial Times*, maintaining these systems takes up two-thirds of a banks' IT budget.

Technology will likely always be a concern for banks, but the deeper issue is engagement. To truly live up to the customer's vision of one united bank, the bank must address more than just customer engagement; it must also focus on banker engagement and incorporating the two sides together.

By focusing on continuous engagement, banks can begin to leverage fintech instead of lagging behind it. They can quickly release new products and features across all channels at once, as well as seamlessly continue customer conversations across any channel they choose. This means less uncertainty for bankers and faster response times to customers. For customers, this means less repetitive questions as well as much less frustration.

Banks must do more than transform their branch or digitize customer channels. They must continuously engage customers and employees on a single, powerful banking platform. That continuity changes everything about how customers experience the bank, how frontline bankers work and how the bank manages its technology and data ecosystem.

By establishing continuity with the right banking platform, banks can unify the experience across all channels, dissolve the friction between bankers and customers and evolve from maintenance to innovation. When banks reduce employee uncertainty and customer frustration, they foster better banking relationships that protect against competition.

Chris Siemasko is chief product officer of Zenmonics, a global provider of omnichannel software that supports all channels in a financial institution on a single platform. Zenmonics' channelUNITED® platform is the leading open standard, omnichannel platform that can be deployed with any core system and spans all self-service and assisted channels to enable complete digital transformation. Zenmonics is committed to transforming the financial industry to ensure financial institutions stay continuously engaged with their customers. To learn more, visit www.zenmonics.com.

The Year Ahead: Digital Shall Become a Table Stake in CX
By Hrishi Talwar

Here's the scenario: Chris is a young professional who wants to impress his new girlfriend with a really nice birthday gift. However, time is not on his side, and his budget is quite strict as well. It's Wednesday and her birthday is on Friday. He first uses his mobile device to do some online browsing of a high-end retailer where he holds a credit card. After a short search, he finds the perfect gift – a bracelet. Not wanting to spend the extra money to have the product priority shipped, he searches the site to see if the product is in stock at the physical retail location – a mall about 20 minutes away. Going there would be the decision.

When he gets to the retailer, he doesn't find the exact bracelet that he found online. Instead, he finds one that he thinks she will like even better. It's more expensive, but she's worth it he tells himself. Though the final sales price of the bracelet would take him over his credit card limit, the sales clerk tells him that he may qualify for an increase on his credit card limit to complete the purchase. She gives him a toll free number and asks him politely to step out of line to make the call. Chris obliges, considering he would rather not use his personal funds for the purchase. Chris decides to browse a few other stores in the mall while he's on hold and then come back for the bracelet later after being on hold for several minutes.

You can speculate about what happens next on Chris' journey for the perfect gift for his new girlfriend. What we do know is the retailer in question did not make this an easy customer experience for him, and likely missed out on completing a transaction. What's the likelihood of Chris returning to purchase the bracelet? And if he does return, how many more transactions like this can Chris withstand before he realizes he can go elsewhere for a better experience? Not creating a seamless experience appears to be a big mistake that retailers and other businesses continue to make. Take this same scenario and make it relevant for any business that needs to simplify and streamline the digital experience for consumers as they:

- shop for products,
- apply for a line of credit,
- open a new account, pay for services,

- accept a product or credit offer,
- register for government services,
- request a ride share, find a rental property and the list goes on and on – and it applies.

From retailers to real estate, business and government agencies alike must understand that digital is not just a channel, but an experience and a key strategic component for Customer Experience (CX).

Digital devices have made consumers more on the go. Consumers expect a frictionless, consistent and user-friendly digital interaction with businesses. Businesses that have not incorporated frictionless user experience into their digital strategy are potentially being left behind. If the empowered consumer is the driver – shopping and browsing promiscuously for the best deals and services – then digital is the vehicle that gives them the ability to go where they want. Businesses cannot afford to treat digital as some ancillary channel that might add something relevant to the consumer experience.

Sophisticated businesses know why customer experience is important, with 76 percent of executives in 2015 citing it is a high or critical priority*. But fast forward to 2017 and Forrester's Data Customer Experience survey finds CX is not great nor has it improved. Here's the reason why: Customer experience without a closed-loop digital process cannot deliver the desired results for today's hyper-connected world where most transactions take place via mobile devices.

Successful businesses have generally integrated digital with their customer experience strategy, while others lag far behind, foregoing business growth and customer loyalty. The consumers have spoken and their loyalty has an expiration date, giving businesses only a short period of time to play catch up before they move on without them. To the earlier scenario with Chris, in a perfect world, he would have known via his mobile shopping experience if the bracelet was in stock in a physical location; and the store would not ask him to step aside to call some toll free number that placed him on hold. He could have been easily approved for a credit limit increase at the counter in a matter of seconds, and he would have his girlfriend's bracelet and they would live happily ever after…use your imagination.

Businesses must devise a customer experience strategy that employs unique and differentiated data sources, flexible and innovative technology and expertise in

identity resolution, credit and fraud risk and consumer experience—offer solutions for businesses that drive better digital experiences for their consumers. This will help consumers more easily and efficiently interact with a mobile application or website to complete transactions. For instance, digital authentication elements can simplify and streamline experiences for customers for a more enhanced and engaging "mobile meets brand" experience.

Businesses can help reduce cart abandonment and frustration, increase cart size, better target credit-eligible consumers and increase the number of applications likely to be approved, enable faster checkout and payment processes, and help reduce key entry errors by creating a better digital experience for consumers. Businesses can deliver an experience that is immediate to a captive audience, whenever and wherever they are.

At this very moment, businesses (your competitors) are probably thinking up ways to go even further into the future with customer experience solutions. For instance, a large retail bank that partners with a gas company for a gas card has already developed an app that allows customers to apply for a card and immediately pay at the pump. They simplified the process by authenticating consumers and prefilling their credit applications within the app. The consumer can apply, be approved, pump their gas, receive a discount and be on their way, allowing the company to capitalize on a captive consumer audience, acquire new customers and streamline the entire process.

By the time all businesses are fully up to speed on the latest digital technologies, think of where the consumer-centric organizations will be at that time.

Hrishi Talwar is the Vice President for Digital Identity and Mobile Products at Equifax. In this role, he is responsible for the overall product strategy and execution of innovative Omni-channel solutions that leverage the extensive Equifax and partner data ecosystems to help improve identity authentication, customer acquisition, retention and channel profitability for business clients and the end consumer. Hrishi is a frequent speaker at conferences talking about the value of CX and the net positive impact to organizations. Hrishi brings 20+ years of experience in building and launching enterprise and consumer product solutions from the ground-up, commercializing and creating net positive revenue and value for several Fortune 50 companies and start-up organizations.

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The Key to Banking Success in 2018 & Beyond: Flexible Technology that Enables Your Institution to Quickly Adapt

By Murthy Veeraghanta

Over the last several years, as smartphones and tablets have grown in popularity, digital banking channels have gained significant traction across demographics. In fact, according to PwC's 2017 Digital Banking Survey, banking via smartphone is now mainstream, as 60 percent of all smartphone owners use mobile banking. This is a substantial increase from the 36 percent that used mobile banking in 2013. As more consumers have come to expect the ability to access their finances from electronic devices, financial institutions have emphasized the importance of omni-channel banking, where institutions focus on deploying banking services for multiple digital channels including smartphones, PCs, tablets and even wearable technology.

No doubt, providing customers with the convenience of managing their finances from any location at any time is crucial. However, in 2018, financial institutions will need to refine this approach and instead, follow an integrated-channel strategy. Rather than implementing digital banking products from various vendors on an ad hoc basis, financial institutions should consider consolidating multiple digital banking channels into one system to deliver the seamless experience today's customers expect.

Taking an integrated-channel approach to digital banking empowers financial institutions to exceed customer demands while also benefitting the institution in several ways.

A Consolidated Platform Offers Clear, Comprehensive View of Customers

With omni-channel banking, financial institutions typically buy various products from different vendors and implement them as needed based on customer demand. While this technically gets the job done, this approach is not sustainable long term. Such an approach leaves banks with several back-end systems to manage and channel-specific services, resulting in an inconsistent and confusing customer experience.

To make it worse, implementing different solutions on each channel using various vendors creates siloes of data. Capturing and analyzing data across channels becomes extremely difficult, making it nearly impossible to form decisions backed by

data. Without data-driven insight, financial institutions are flying blind when it comes to understanding their customers' needs and how to meet them.

This can severely hinder a financial institution's innovation strategy because without aggregated data, the institution must rely on little more than guesswork to determine where to focus innovation and new product development efforts.

The Branch is Still Relevant

According to Accenture, 87 percent of consumers report that they will use a branch in the future; meaning branches are here to stay. However, in 2018, financial institutions must take steps to integrate technology and human service within the branch to provide a consistent, seamless experience between all digital and physical channels. Customers should not feel as if they've traveled back in time when they visit a branch location.

One way to accomplish this is by using the data collected from digital interactions with customers, which ensures employees understand the context and intent of each interaction when the customer enters the branch.

Flexibility in a Digital Banking Platform is Key to Long-Term Success

In 2018, the industry will likely see an increase in more unified, open-architecture systems, as this technology eliminates several common barriers to innovation. Using separate vendors for different digital banking channels and products requires multiple costly, time-consuming system integrations because today's legacy systems were not built with common software architectures. This makes introducing new products or services difficult due to the lengthy product development process involved with integrating new technology into an older system.

With a consolidated system, financial institutions can easily adapt to changing technology and shifting customer expectations, which are inevitable due to the speed of innovation that today's generation of consumers has become accustomed to. This also makes it cheaper to adapt to new technologies and ensure interoperability between channels.

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Customer Experience is Important, but so is the Employee Experience

Many of the discussions within the financial industry focus on how banks can attract and retain Millennials as customers, but there should also be an emphasis on how banks can attract and retain Millennials as employees. According to the Bureau of Labor Statistics, Millennials will represent nearly 75 percent of the workforce by 2030, which means this generation will play a crucial role in modernizing the banking industry from the inside. Consequently, financial institutions should start thinking of ways to adopt technology that is seamless and intuitive for employees, as this will empower them to provide optimal service to customers.

The financial industry has been transformed over the last decade and will continue to change. For this reason, banks and credit unions must invest in scalable, flexible technology that allows them to adapt with each technological advancement and new customer demand while ensuring a consistent and intuitive experience for both customers and employees. Financial institutions that achieve this will position themselves as industry leaders, now and for the foreseeable future.

Murthy Veeraghanta is chairman and CEO of VSoft Corporation, which offers platform-based services for the banking and financial services industry. He co-founded VSoft in 1996 and has grown the company from inception to a global company serving more than 2,200 user institutions that range in diversity from large, international banks, corporate credit unions and service bureaus to small community banks and credit unions. For more information, visit www.vsoftcorp.com.

Moving From “Catch Up” to “Catch Me”
By Mark Vipond

In 2017, Apple celebrated the tenth birthday of the iPhone. To say that this device and others like it have significantly impacted our lives would be an understatement. It’s more accurate to say that the smartphone changed the world and transformed the way people access basic services.

It is difficult to think of another industry that the smartphone has altered more radically than banking. Before the age of online banking, banks and credit unions had the power to decide which services and solutions to offer and when. Their timeline was on their own terms, but after the introduction of the smartphone, consumers began to call the shots.

Many financial institutions are still trying to adjust to this change and are still playing catch up when it comes to meeting their members’ and customers’ needs. Institutions that are still using legacy online and mobile banking products are losing clients because the experience and solutions they’re offering just aren’t modern or relevant enough. Financial institutions that have adopted a digitally-forward strategy are starting to stake out clear competitive advantages.

Set and Forget? That Ship Has Sailed

The adoption of new technology, especially technology that relates to the digital channels most consumers and businesses leverage on a daily basis, continues to accelerate. Trying to respond to this evolving technology with digital offerings built on disparate, aging systems is a fool’s errand; they’re simply not scalable, flexible or configurable enough.

Gone are the days of the "set and forget" mentality, when institutions could upgrade their online and mobile banking offerings every four to five years. Today, the only way to survive is to consistently and quickly respond to the early indicators of what customers want. The current digital customer isn’t willing to wait nine months or a year for a new solution, much less four to five years. Yet “set and forget” is a difficult habit for many banks and credit unions to break, as it has been the typical practice for many of their product and solution decisions for years.

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Because of this, when new features are introduced or existing offerings are enhanced, the improvements may seem substantial to the institution. However, consumers are often far less impressed. The set and forget mindset must be replaced with the view that innovation is not an occasional event, but rather a continuous strategy.

As If It Weren't Hard Enough

But, that is only part of the puzzle. To secure a competitive advantage, banks and credit unions must do more than bring new offerings to market quicker and more often. Institutions will also need to differentiate their digital services based on the demographics they serve. For example, Millennials (Gen Y) and, more recently, Gen Z have become lucrative targets across many industries, banking included, but Baby Boomers have maintained spending power as well, so their preferred methods of interacting with their institution cannot be ignored.

Ernst & Young's (EY) [2016 Global Consumer Banking Survey] of 55,000 people across 32 countries found that only 16 percent of customers are both financially savvy (understand products) and digitally discerning (can navigate the various digital channels), while 36 percent are neither. Do the math, and you'll find that nearly half of a bank's customers fall somewhere between wanting to simply check a balance or pay a bill and wanting to engage with their institution across all channels.

Anticipating and meeting the needs along this spectrum represents a significant challenge. According to EY, there are three such areas institutions must invest in "to restore their central place in the lives of consumers:" the ever-changing nature of the user experience, the need to be current with the technology of the day and enhancing customer understanding. This means not only should an institution's digital banking platform be nimble enough to introduce new technology quickly, but it also must include a level of configurability and detailed analytics that allow for personalization down to the individual level.

Separating the Sheep from the Goats

Nearly every vendor offering a digital banking platform claims to have these capabilities, but banks and credit unions should remember that not all digital banking

platforms are created equal. By conducting proper due diligence, institutions can better determine the validity and ability of each potential digital banking partner. Consider factors such as the tech stack being leveraged by the vendor. If it was developed using something like .Net, institutions may not be able to accomplish all that is needed – think speed and scale – to win against the competition. Instead, look for more modern, ubiquitous languages such as Java and open-source tools.

Institutions should also approach digital from a strategic, rather than a tactical standpoint. There are many solutions that decrease cost and reduce complexity to some degree. While this should definitely be on the list of requirements, these attributes alone aren't enough to successfully compete. The ability to bring innovations to market faster – not necessarily as a first mover but certainly as a fast follower – should be at the top of the list for any bank or credit union determined to move from "catch up" to "catch me."

Quick Wins with a Long View

Anyone who has been in the banking industry, especially on the IT side of the house, understands how long and difficult the journey toward change can be. However, it's one that's worth the investment of time, resources and strategy since failure to do so can have a terminal impact on a financial institution.

This doesn't have to be 'rocket science;' an institution must simply know what it's looking for and what is needed to consistently improve and adapt. There is no reason for institutions of any size to not be pursuing this course. The technology is there, but not in the usual places institutions have looked for it in the past. Some already know this, others are learning and, sadly, some will discover the truth too late.

Mark Vipond is chief executive officer of D3 Banking Technology, a provider of the industry's leading digital banking innovation platform. With more than 30 years of experience in the software industry, Vipond is responsible for the strategic direction of D3 Banking Technology as well as the oversight of sales and operations.

2018: The Year to Focus on Commercial Interchange
By Victor Yefremov

While interchange revenue makes up the second largest revenue stream outside of interest income, it is common to observe institutions that are not focused on this as a strategic growth opportunity, and instead continue on the passive path of taking whatever comes their way. It is perhaps the most unaddressed hole in the armor of many community and regional banks, and perhaps one of the best opportunities for incremental revenue gains in 2018.

Considering the aggressive cross-sell approach of some major institutions, it illustrates corporate objectives that stretch well beyond loan products alone. Clearly programs are being adopted by sales leadership to reward more than just commission points on loans written. In many cases this represents opportunities amongst core commercial audiences, where non-loan programs are used to penetrate competitor customer bases in a Trojan horse like manor.

As a focus group of one, my own personal experience has been a curious situation where I knew first hand the tight connection we maintained as a business with our regional bank. Yet in all three instances over a 15 year period, I have never been issued any corporate card other than American Express. While perhaps my experience is unique, its more likely a reflection of their intentional and successful pursuit of corporate card accounts.

There is little argument that American Express aggressively pursues the acquisition of corporate card accounts. And why not – American express demonstrates monthly purchase volume at three times the industry average. Compound this spending velocity by the fact that American Express (and commercial cards in general) hold higher interchange rates, and it becomes obvious that being strategically aggressive in this arena pays dividends.

So why does this opportunity remain a passive footnote for most community and regional banks? Perhaps it's the recognition that companies such as American Express and Wells Fargo invest heavily in technology and expense management tools that facilitates these business card services? Or maybe what is feared more than the commercial card competitors is the myriad personal cards that dominate individual spending patterns; with a drug-like addiction to points and rewards.

Selling to the Back Office

Let’s take a lesson out of the SalesForce playbook, one of the highest growth tech companies for years now. Do they sell their product because salespeople are overzealous to capture their daily activity in a journal like fashion? Do sales people attribute their sales successes to a CRM system? Nope – for most salespeople it's just viewed as a tax on their time.

SalesForce is sold to the back office. And why? In any sales oriented organization revenue predictability and accurate sales forecasts are the holy grail of the financial administrator. SalesForce is selling crystal balls – all your sales activity rolled up into dashboards that enable you to know exactly where the business stands.

So how then do we sell to the back office with card services? We make their lives easier. Take for example a commercial builder with 600 card expenses to reconcile monthly. With non-automated processes this can easily take 40-60 hours of monotonous, mind numbing, and error prone activity, every month. Alleviate this pain and you will see just how quickly company policy can be altered. The simple addition of expense management capabilities enables end card holders to capture receipts for submission and approval in a more automated way, and more importantly in a format that can be imported to accounting systems without painstaking transposition and data entry. Offer transaction synchronization for your institutions cards, and you can effectively automate the expense reporting process, eliminating the majority of manual effort involved in the expense reporting process, right down the end card holder.

When you make life this easy, you make the decision to establish a single card issuer for expenses as a policy an obvious choice. Any other path such as supporting consumer cardholder preference, reduces operational efficiency and hence introduces unnecessary financial impact.

Add the stickiness of also being the long term record holder – effectively becoming a central system of record for your customers – and you will have established a long term stream of commercial interchange revenue. This further seals that missing link in your institutions armor – hardening against competing institutions interest in establishing a card services beachhead within your customer base.

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