

12 Bankers as Buyers™

A collection of research, observations and articles about what technology, solutions and services U.S. bankers will buy in 2012 and the changing financial industry landscape



Prepared by:

William Mills
AGENCY

January 2012

Dear Readers:

I'm pleased to share this year's *Bankers As Buyers*TM report with you. As voracious consumers of financial trade media, events and insights from industry analysts, we see value in consolidating information and sources to provide a high-level overview of what to expect in technology spending and implementation in 2012.

There are a few themes that seem to consistently weave their way into the industry discussion:

- Channel Shift – the movement of investment and resources from one channel to another;
- Disintermediation – not entirely new, but we hear about non-traditional players (such as PayPal, Square, prepaid cards, and cash advance companies) making in-roads to traditional banking relationships;
- Customer Engagement – cross-selling, rewards, etc. to establish more meaningful interactions with those customers who rarely ever visit the branch; and
- Customer Experience – using input, analytics and technology to improve the overall customer experience.

Industry media and speakers gravitate toward technologies that we'd call "emerging," whereas much of technology spending is for existing platforms and services that are already well established. This year's report makes an effort to balance where the spending currently is and where it is going.

We have talked to some of the brightest, best-informed industry experts for their insights and access to their companies' research for this comprehensive view of the industry. This survey has been greatly enhanced by information provided by or originally published by:

- Aite Group - *Julie McNelly*
- Beyond the Arc - *Shaw Taylor*
- CCG Catalyst Consulting Group - *Paul Schaus*
- Celent - *Bart Narter*
- Computer Based Solutions, Inc. - *Art Gillis*
- Computer Services, Inc. – *Steve Powless*
- Cornerstone Advisors - *Michael Besselievre*

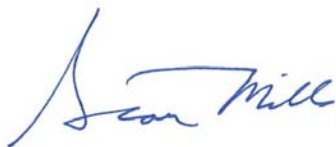
- Credit Union National Association (CUNA)
- Crone Consulting, LLC - *Richard Crone and Heidi A. Liebenguth*
- Equifax
- Federal Deposit Insurance Corporation (FDIC)
- IDC Financial Insights - *Jeanne Capachin*
- Independent Community Bankers of America (ICBA) - *Viveca Ware*
- Jack Henry & Associates - *Mark Forbis*
- Javelin Strategy & Research - *Mary Monahan, Phil Blank*
- Malauzai Software, Inc. - *Robb Gaynor*
- Movenbank - *Brett King*
- Novarica - *Matthew Josefowicz*
- Q2ebanking - *Scott Abeel*
- Safe Sytems - *Darren Bridges, Curt Frierson, Tom Hinkel*
- Sawyers & Jacobs, LLC - *Jimmy Sawyers*
- Speer & Associates
- TowerGroup - *Craig Focardi*

This year's report is without the insight of veteran financial services analyst Bill Bradway, who unfortunately passed away in 2011. He was a true gentleman to work with and great friend to WMA and will be missed. Our thoughts and prayers are with his family.

While *Bankers as Buyers* contains a great deal of information and analysis, it is a "high-level" view of the forces shaping technology spending in the financial services industry. More detailed information is available by reaching out directly to our contributors to gain more data about specific areas of interest to you.

While this material is copyright protected, you have my blessing to share this document with your business associates, clients, prospects and friends within the industry.

Sincerely,



Scott Mills, APR
 President
 William Mills Agency

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By Scott Abeel, Q2ebanking



I. Year in Review

The past 12 months saw a continuation of years of contraction as financial institutions deal with the fallout of the mortgage collapse and the economic downturn. However, there were signals that the bottom of the trough might have finally been reached.

Many of the nation's largest financial institutions continue to deal with stubbornly high mortgage delinquency rates, costs tied to some of the first elements of the Dodd-Frank Act, falling loan demand from qualified borrowers, and continuing low net interest margins.

On a more positive note, the rash of financial institution closures witnessed during the last couple of years has slowed significantly. Only 90 banks were taken over by the government by the end of November, a far cry from the more than 150 shuttered the previous year and the 140 that were seized in 2009. As a result, earnings have improved on an industry-wide basis, though they still remain below their 2008 levels.

Elevated unemployment levels nationally, weak mortgage demand and uncertainty over some of the implications of Dodd-Frank and other regulations has financial institutions being very conservative again about their technology spending plans for 2012.

"It's not looking great, but it's not looking horrible," said Jeanne Capachin, research vice president, corporate treasury and spending guides for IDC Financial Insights referring to expectations for financial institution technology spending in 2012. "We're looking for a 1.8 percent growth rate, a little lower than last year's forecast."

Uncertainty is keeping a lid on some potential financial technology spending:

- Uncertainty over policies in Washington as the Congress stays divided on most issues;
- Uncertainty over the fallout of Dodd-Frank. Lawmakers are still determining some of the rules for different elements of the law, like Qualified Mortgage and Qualified Residential Mortgage, which will affect the funds banks will be able to tap for technology and other expenses. *(One Elavon executive said at the TAG FinTech conference that only 10 percent of the rules have been written so far.);*

- Uncertainty over the health of European banks, which could have a direct effect on the largest U.S. institutions and a ripple effect on some smaller banks; and
- Uncertainty about home values and sales, which has a direct effect on the mortgage market. A December report from the National Association of Realtors revealed that home sales for the years 2007 to 2010 were overstated.

According to an Equifax research report released in the middle of the year, write-off dollars for home finance, which includes first mortgage and home equity installment loans as well as home equity revolving accounts, were still climbing and had yet to show signs of peaking. The 2011 write-offs were expected to surpass the 2010 total of \$304.6 billion. By contrast, the *combined* total for 2006 and 2007 was \$126.7 billion.

Equifax data also shows severe delinquencies among these loan vintages have remained nearly constant since the first quarter of 2010. As of May 2011, there were approximately \$319.7 billion in 2006- and 2007-originated first mortgages that are in the initial foreclosure process – many of which may be written off. Financial experts generally expect the resolutions to continue for another couple of years.

Consumers still seem to be comfortable in taking on debt, according to Equifax there is \$2.38 billion in consumer debt as of October 2011. Yet, home equity debt and credit card debt continue to decrease, meaning that consumers are turning more to non-bank credit cards and other non-financial services forms of financing.



II. Spending Outlook

A. Market Size

According to FDIC and Credit Union National Association September 2011 data, the depository landscape is as follows:

Number of:

Commercial Banks	6,352
Savings Banks	1,084
<u>Credit Unions</u>	<u>7,321</u>
Total	14,757

This represents a 3.5 percent decline from last year's total, a smaller contraction than was reported in last year's *Bankers as Buyers* (5.7 percent), largely due to the slowdown in government seizures.

Community banks, though exempt from many of the requirements and expenses of the Dodd-Frank and Basel III rules, are facing higher relative costs for compliance than their larger counterparts, which will drive some consolidation in this end of the market, according to Darren Bridges, president of Safe Systems, Alpharetta, Ga. Government seizures are expected to drop further from their 2011 levels.

"The good news is that the number of failed institutions is slowing down. Mergers and acquisitions have returned to their normal levels, not ones induced by failures," said Mark Forbis, vice president and chief technology officer for Jack Henry & Associates, Monett, Mo. "Now, there is a general calmness and comfort level with the future. Bankers are looking hard at solutions for efficiency and ROI."

On the other side of equation, de novo institutions are scarcer than they were only a few years ago, Forbis added.

TABLE III-A. Third Quarter 2011, All FDIC-Insured Institutions

THIRD QUARTER (The way it is...)	All Insured Institutions	Asset Concentration Groups*								
		Credit Card Banks	International Banks	Agricultural Banks	Commercial Lenders	Mortgage Lenders	Consumer Lenders	Other Specialized <\$1 Billion	All Other <\$1 Billion	All Other >\$1 Billion
Number of institutions reporting	7,436	18	5	1,552	3,854	713	71	363	801	59
Commercial banks	6,352	15	5	1,545	3,450	185	52	335	715	50
Savings institutions	1,084	3	0	7	404	528	19	28	86	9
Total assets (in billions)	\$13,807.7	\$532.0	\$3,665.3	\$208.5	\$4,171.1	\$800.1	\$98.8	\$54.0	\$136.4	\$4,141.5
Commercial banks	12,559.9	503.8	3,665.3	207.8	3,703.0	228.3	42.3	47.8	112.4	4,049.3
Savings institutions	1,247.8	28.2	0.0	0.8	468.1	571.8	56.5	6.2	24.0	92.2
Total deposits (in billions)	10,000.1	263.5	2,454.0	172.6	3,221.7	580.3	85.0	42.9	113.1	3,066.9
Commercial banks	9,077.0	245.4	2,454.0	172.0	2,889.3	149.9	35.1	38.3	94.3	2,998.9
Savings institutions	923.0	18.1	0.0	0.6	332.5	430.4	50.0	4.6	18.8	68.0
Bank net income (in millions)	35,317	4,056	9,761	657	7,991	1,541	507	280	361	10,163
Commercial banks	32,695	3,733	9,761	656	6,985	662	243	160	290	10,205
Savings institutions	2,622	323	0	1	1,006	879	264	120	70	-42

Source: FDIC

U.S. CU Profile

Demographic Information	U.S. Credit Unions					Asset Groups - September 2011			
	Sep 11	2010	2009	2008	2007	< \$5Mil	\$5-\$20	\$20-\$100	> \$100 Mil
1 Number of CUs	7,321	7,486	7,708	7,966	8,268	1,744	2,000	2,147	1,430
2 Assets per CU (\$ mil)	131.6	123.8	116.3	103.7	93.1	2.1	11.1	46.6	585.6
3 Median assets (\$ mil)	19.0	17.6	16.5	14.5	13.1	1.9	10.5	41.0	255.0
4 Total assets (\$ mil)	963,373	926,610	896,824	825,802	770,100	3,630	22,290	99,979	837,474
5 Total loans (\$ mil)	577,322	575,664	582,791	575,814	539,546	1,746	10,727	53,484	511,364
6 Total surplus funds (\$ mil)	351,520	317,415	282,027	217,870	199,252	1,849	11,007	42,545	296,119
7 Total savings (\$ mil)	830,082	797,303	763,341	691,766	646,820	3,041	19,218	87,975	719,849
8 Total members (thousands)	92,646	91,760	91,157	89,914	88,497	1,023	3,949	13,444	74,230

Source: Credit Union National Association

Dallas-based financial services consultant Art Gillis of Dallas, Texas, who publishes the *Automation in Banking* report, tracks IT spending by institution size. In his latest report, large banks account for 82.9 percent of the North American spend on technology.

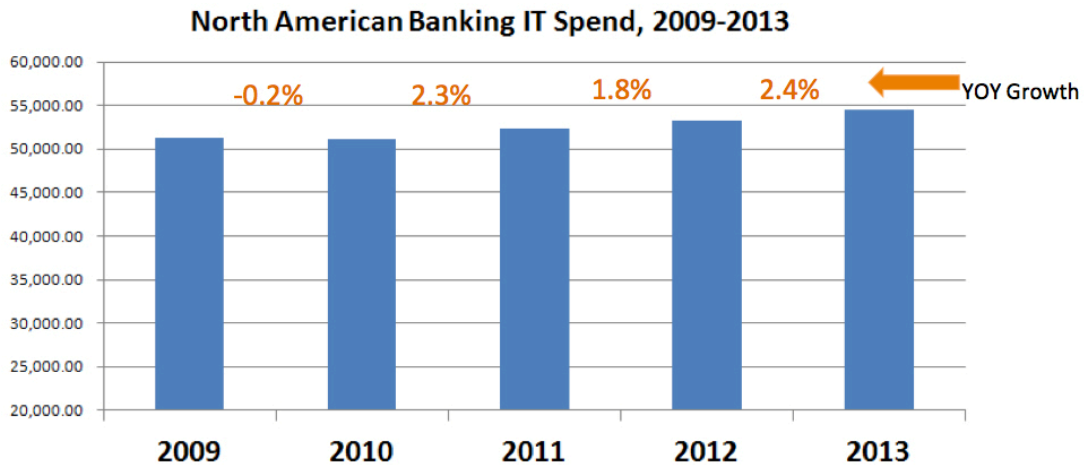
IT Expense by Size of Banks

2010		
Large Banks	\$82.00 billion	82.9%
Mid-Tier Banks	\$11.15 billion	11.3%
Small Banks	\$2.23 billion	2.3%
Credit Unions	\$3.49 billion	3.5%
Total	\$98.87 billion	
2009		
Large Banks	\$58.85 billion	77%
Mid-Tier Banks	\$11.38 billion	15%
Small Banks	\$2.27 billion	3%
Credit Unions	\$3.55 billion	4.7%
Total	\$76.05 billion	
2008		
Large Banks	\$55.60 billion	78%
Mid-Tier Banks	\$10.92 billion	15%
Small Banks	\$2.20 billion	3%
Credit Unions	\$2.99 billion	4%
Total	\$71.71 billion	

Source: *Banking in Automation*, Art Gillis

B. Spending Projections

IDC Financial Insights expects North American financial institution technology spending to increase by just under two percent in 2012, to about \$53 billion, representing what in the past might have been considered a poor year but the growth rate is now considered as a new normal.



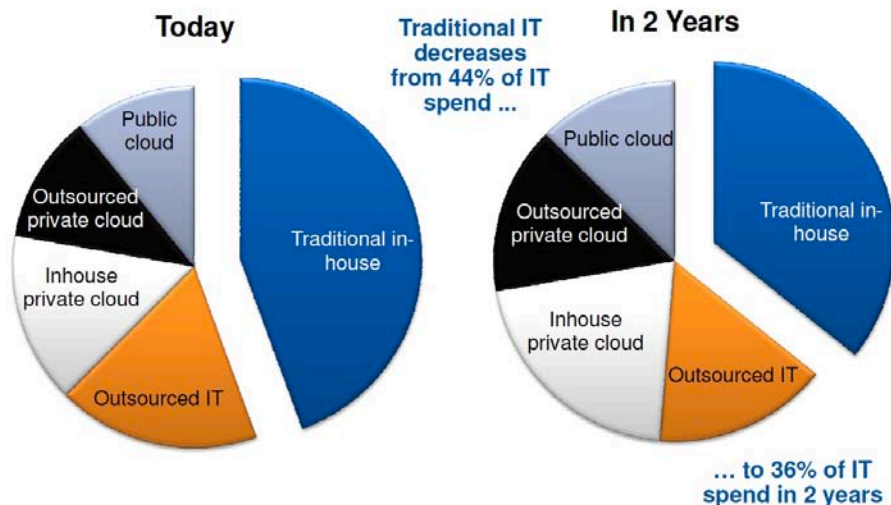
Source: IDC Financial Insights

Mobile banking will have much of the focus for the technology spending, though it will likely fall behind in terms of absolute dollars spent on compliance/regulatory technologies and security/fraud prevention. IDC predicts that financial institutions will also attempt to eke out more efficiency by focusing on technologies and processes that help reduce costs.

“Financial institutions will be looking to more BPO (Business Process Outsourcing) and other outsourcing to lower their costs,” said Capachin.

Steve Powless, CEO of Computer Services, Inc. (CSI), Paducah, Ky., cites pent-up demand over the last several years that he says will be the driver for a three percent increase in growth in financial technology spending. “Banks will be driven by the need to increase efficiencies to drive down costs.”

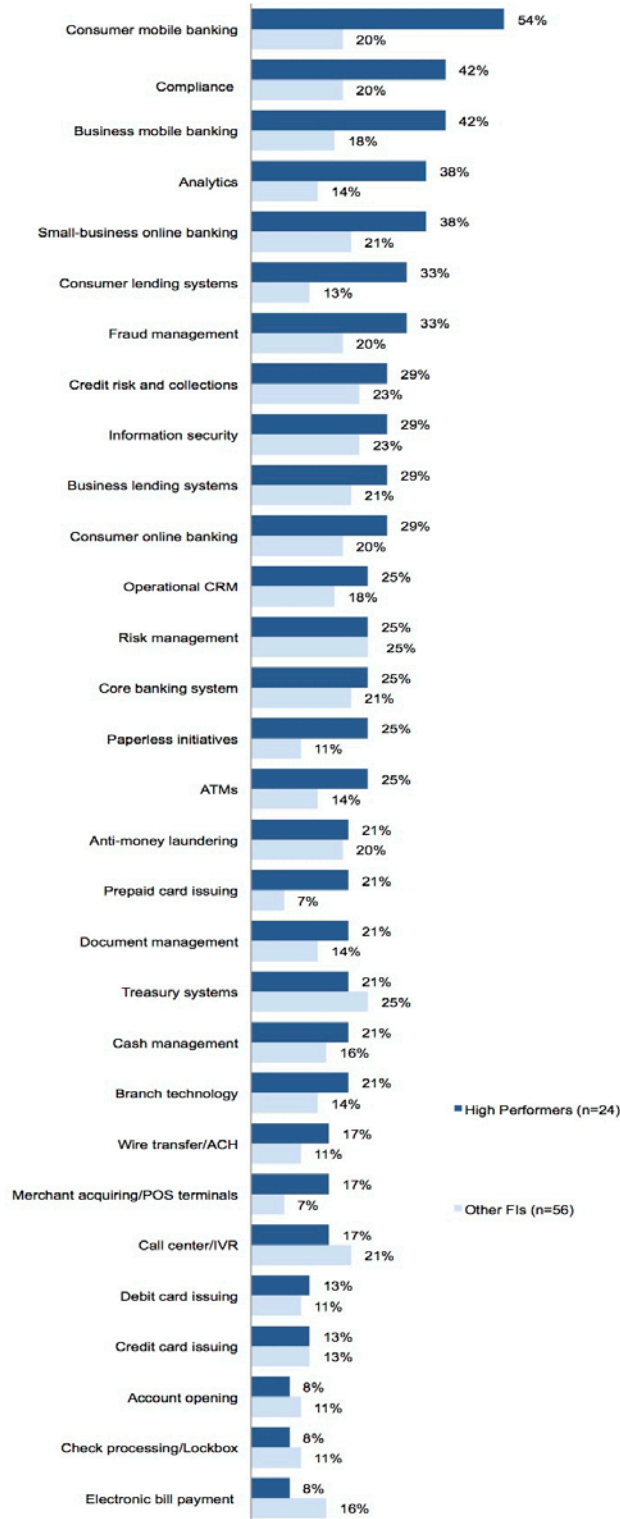
IT Spending – The Shift Begins



Source: IDC Financial Insights

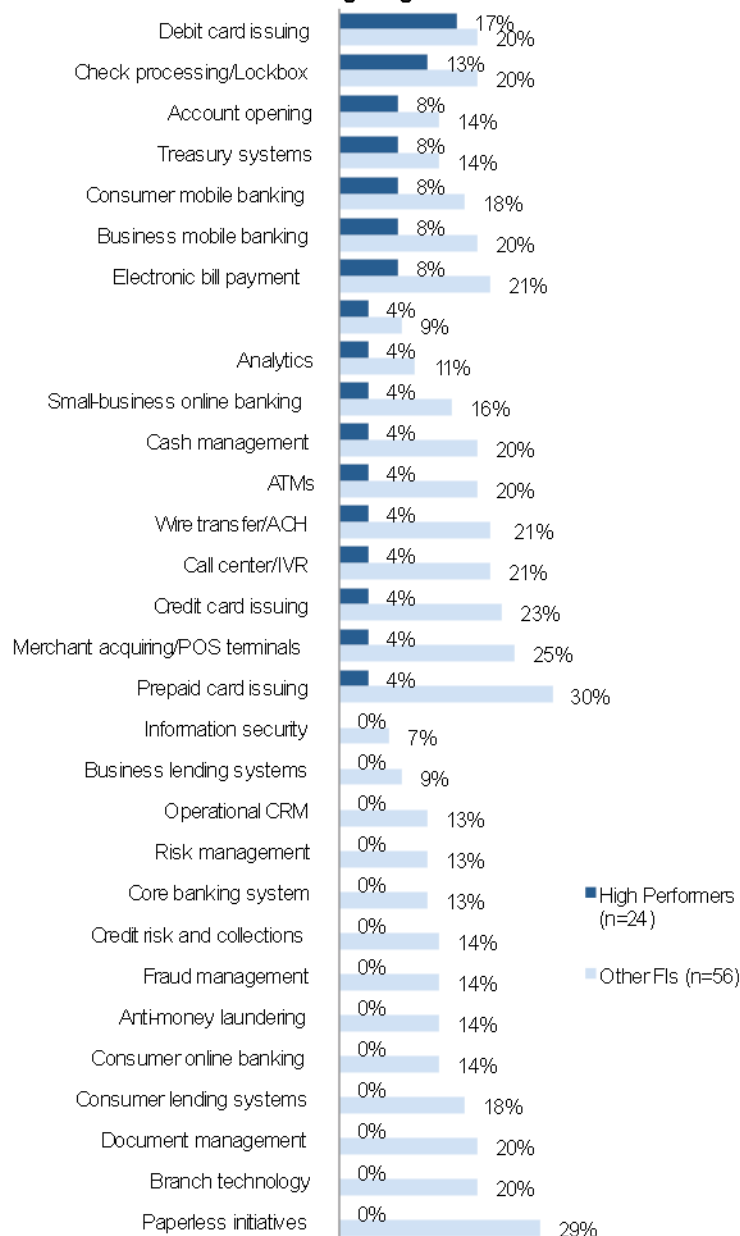
Other efforts will include providing a more consistent customer experience across all channels and technologies that help enhance sales opportunities across various channels.

Percentage of Financial Institutions That Will Increase IT Spending for the Following Categories Over the Next 24 Months



Source: Aite

Percentage of Financial Institutions That Will Decrease IT Spending in Following Categories



Source: Aite

Other experts see a similar small increase in financial institution technology spending. One notable exception is Gillis, who expects 2012 financial institution technology spending to be no better than it was in 2011.

“Banks have to hunker down and not expect anything good to happen. Any manager of any technology at a bank has to cut spending down to the bone,” said Gillis. Yet,

spending on current systems that financial institutions want to maintain rather than mothball will require a seven percent increase just to keep them operating, according to Gillis. “Some won’t do that; some won’t spend anything. Others will spend more if they can make a business case for it. Even in the worst of times, some spend more than the seven percent. I don’t think there will be a sense of optimism [about bank technology spending] for several years to come.”

III. Spending Breakdown

A. Mobile Banking

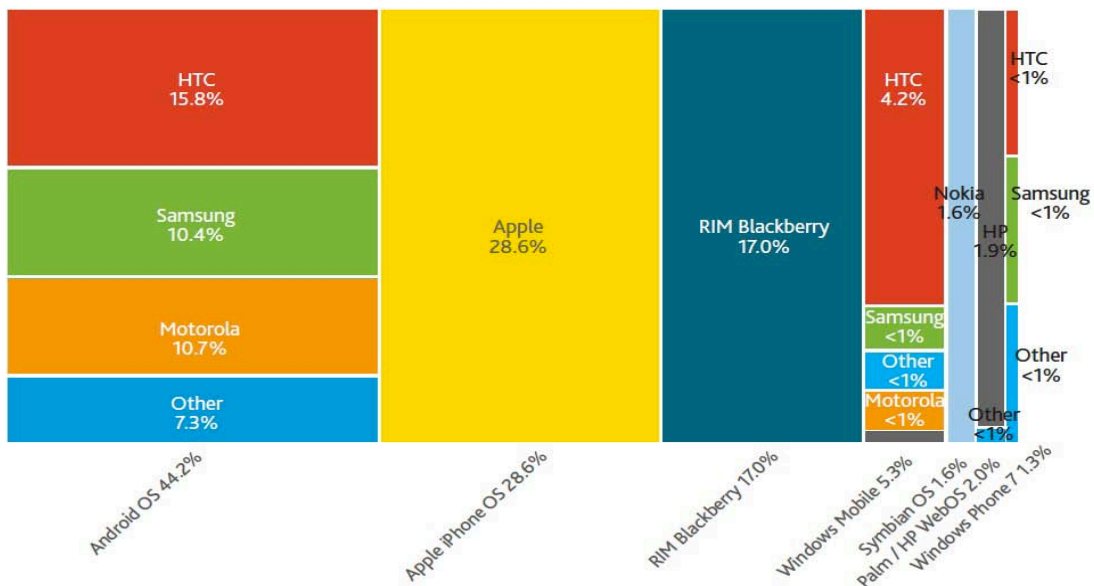
One area where several banks and banking experts say a business case can be made is mobile banking. Mobile banking is the item getting the most buzz in terms of financial technology. Javelin Strategy & Research suggests the technology has moved from the “nice to have” to the “must have” category. It is a major subject of financial institution conferences, has created benefits for many of the financial institutions that have already implemented it and promises to further increase revenue through mobile payments and decrease expenses through mobile capture.

According to Javelin survey data, after two years of flat growth, consumer mobile banking adoption jumped from 19 percent to 30 percent in 2011 due to continuing financial institution implementation and growth in consumer smart phone ownership.

Mary Monahan, Javelin managing partner and research director, said half of smart phone owners conduct mobile banking. These users are more likely to appreciate the benefits of mobile banking and spend more time completing mobile transactions. 51 percent of mobile phone owners now own a smart phone.

Manufacturer operating system share-smartphones

Aug-Oct 2011, U.S. Mobile Insights, postpaid mobile subscribers



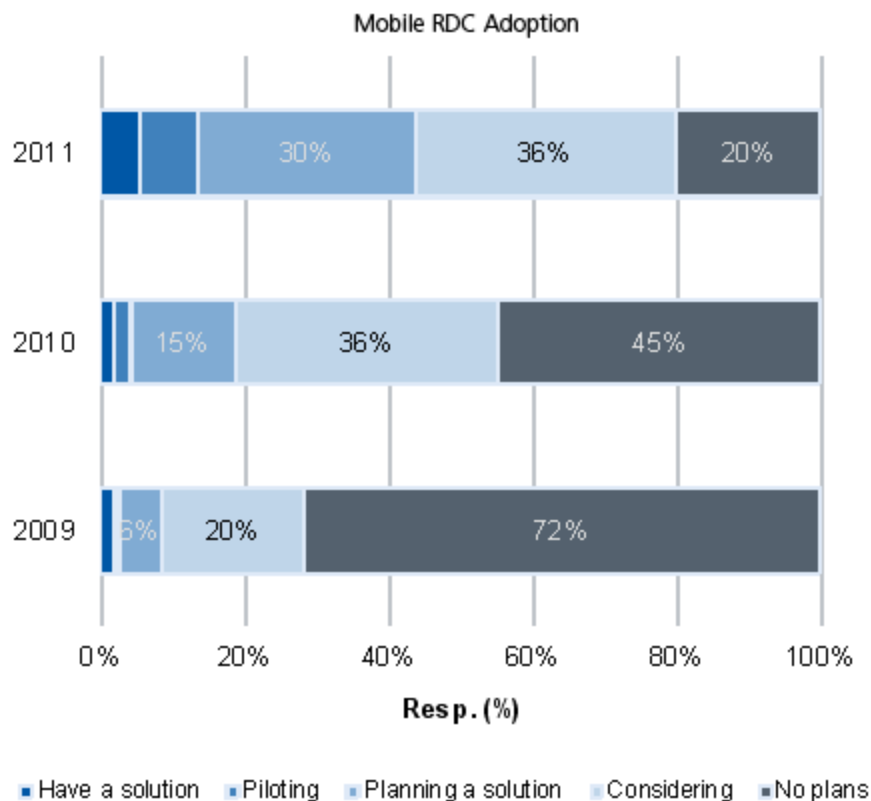
Source: Nielsen’s “State of the Media: The Mobile Media Report”

“We’ve been hearing a lot about mobile for the last three or four years, now it’s finally beginning to gain traction,” said Michael Besselievre, senior director with Cornerstone Advisors, Scottsdale, Ariz. “One of the killer apps is mobile deposit and mobile capture. They provide convenience and enhance the customer experience.”

Mobile deposit enables the customer to take a photo of a check and email the image to the financial institution for immediate processing, saving the bank the expense of processing the payment via the branch network.

“It costs a lot for banks to process a deposit through the branch system,” said Besselievre. “It’s in the banks’ best interest to facilitate this.”

Interest in Mobile RDC Doubled (Again) Over the Past Year



Source: Celent survey of US financial institutions

Source: Celent

The nation’s largest banks are already offering mobile deposit capabilities and are advertising the capability on television. Besselievre expects regional and some smaller banks to begin adding this capability in 2012.

“Even if the customer prefers ATM or branch transactions, he wants the option of using the mobile channel,” said Besselievre. “Generation X and Generation Y customers, in particular, are attracted to banks that offer the mobile deposit capabilities.”

Going hand-in-hand with mobile banking is the business of mobile payments, according to Richard Crone, Crone Consulting LLC.

“The investment in mobile banking is going full force,” said Crone. “There are 200,000 people a day connecting to their financial institutions via their mobile applications. Within two years, there will be more people connecting with a mobile device than through the wired Internet.”

The number of smart phones shipped now exceeds PC shipments, adds Jimmy Sawyers, founding member of Sawyers & Jacobs LLC, Memphis, Tenn.

“If a bank’s Internet banking provider is not providing a mobile banking application, the financial institution should be looking for another provider,” said Sawyers.

Crone points to Starbucks, which launched a mobile payments app earlier this year. In 30 days, there were more than one million transactions, and in less than a year there were more than 26 million, representing about 25 percent of all store transactions.

“It was the most successful launch in history,” said Crone. “They’ve captured one to two percent of all transactions with no investment in hardware.” These will be lifelong customers, Crone added.

The critical advantage of mobile applications is the revenue from advertising – an unregulated source of income. Today banks earn \$140 per year from DDA accounts and \$330 a year from consumer credit accounts. The potential advertising revenue can be \$300 to \$500 per year, according to Crone.

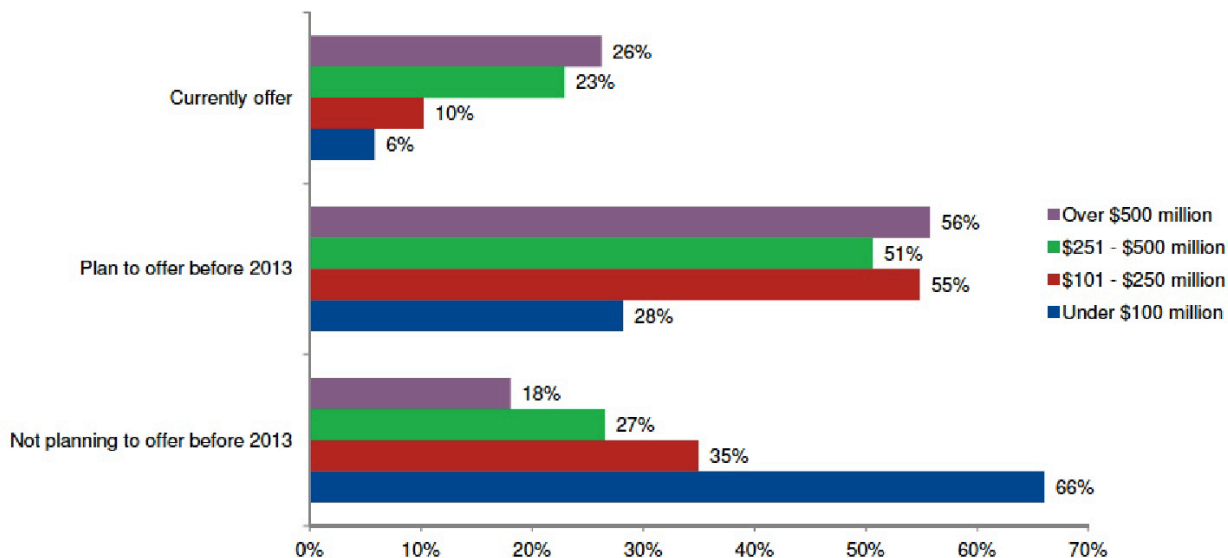
Additionally, banks eliminate the interchange fees of the credit cards, a significant expense for merchants. If banks don’t do this, Google or another non-financial services company will seek to grab this business, and take these customers from the banks, according to Crone.

Despite enthusiasm around mobile banking, more than 90 percent of the respondents in a Speer & Associates of Alpharetta, Ga. online opinion poll of financial services industry professionals said it would be three years before mobile payments transitions to a mainstream payment option for consumers. Just over half (51 percent)

of respondents gauged their institution's participation in mobile payments to be a high priority, while 33 percent said it was a moderate priority.

Independent Community Bankers of America (ICBA) expects about half of its members with more than \$100 million in assets to offer mobile payments before 2013.

ICBA Member Survey – Mobile Payments



Source: Independent Community Bankers of America

Mobile banking and mobile payments are similar for financial institutions today to Internet banking of the mid-1990s. “Many of those who didn’t make the investment in Internet banking then aren’t in business today,” said Crone. “Those that are still in business have customers whose average age is dramatically higher than those who did make the investment in Internet banking then. Their fastest growing accounts are deceased. Their customers are dying – if banks aren’t reinvesting in their business, then they are liquidating it.”

IDC Financial Insights’ Capachin adds that, similar to Internet banking, financial institutions shouldn’t look to the channel as a solution in and of itself, but consider and budget for it in context of how they can deploy it as part of a comprehensive banking business.

The amount that financial institutions need to spend to make mobile banking and payments viable options are far less than they needed to get started with Internet banking, Crone added. The Internet banking platform drives mobile banking. So, banks can deliver mobile banking and payment applications to their customers via software – a much less expensive option than adding new hardware at the bank.

Matthew Josefowicz, managing director of Novarica, a division of Novantas LLC, New York, agrees that financial institutions can no longer count on customers' loyalty just because they are banks. If banks don't provide convenience and low-cost services, consumers will opt for peer-to-peer payments and other non-traditional financial services, leaving the banks out of the loop. So banks need to follow the lead of retailers such as Starbucks and pay close attention to the actions of Google and other potential non-traditional competitors.

B. Analytics

Analytics will be an important element in several areas for financial institutions. It will be an essential element of mobile, branch and other technologies as financial institutions seek to obtain a larger share of wallet from their customers and replace revenues lost to declining mortgage volume and declining income from debit card fees.

"Larger banks will be looking more at KPIs (key performance indicators) and will be buying more data," said Paul Schaus president of CCG Catalyst, Phoenix, Ariz.

"The key to analytics is the ability to understand where and when a customer needs a product or service," said Brett King, author of Bank 2.0 and founder of Movenbank, New York.

Capachin agrees, predicting that financial institutions will look to data warehouses for improved data mining in obtaining a total view of the customer's financial products and services and potential needs.

Powless expects to see increased investments in systems to analyze customer behavior and optimize delivery channels. "There is a wealth of data management tools to better analyze a customer's product portfolio. PFM (Personal Financial Management) and rewards programs are gaining importance with customers and becoming essential for customer relationship management."

In a report on data mining and analytics, Javelin research pointed out financial institutions are well positioned to access their PFM data and incorporate search and location data to provide their mobile and ready-to-buy customers with personalized financial services and offers. By doing so, financial institutions can establish an advantage in data mining and reap the benefits of closer customer relationships and new revenue opportunities.

Analytics will also be essential elements for monitoring mortgage risk and fraud of all types, as financial institutions seek to protect themselves from losses.

C. Compliance

Compliance technology spending continues to be significant due to regulators' demand for better analytics and more frequent reporting, according to Capachin. "The biggest issue is liquidity reporting, management reporting and reserve monitoring. Banks are trying to improve their reconciliation processes so they know where their cash is. Those who were already part of Basel II are already in the game."

Capachin adds that some of the compliance requirements for Basel III and for Dodd-Frank are "sucking the life out of innovation for financial institutions."

Compliance spending is one of the first areas of the budget that financial institutions address, particularly after any industry slowdowns, because this area where there is no questioning the necessity and budgetary approvals are relatively easy to obtain, said Tom Hinkel, director of compliance for Safe Systems. "Increased reporting is an area they will have to deal with for several years."

Beyond simply "having to do it" due to regulatory concerns, compliance systems are important to protect the financial institution from reputation risk if something were to go awry, Hinkel adds.

Darren Bridges, president of Safe Systems, adds that regulators are paying closer attention to disaster recovery plans. "It is no longer good enough simply to show the financial institution has a disaster recovery plan in place. Now regulators want to see proof that banks have a compliant and detailed plan for recovery, complete with test results," said Bridges.

D. Security/Fraud Prevention

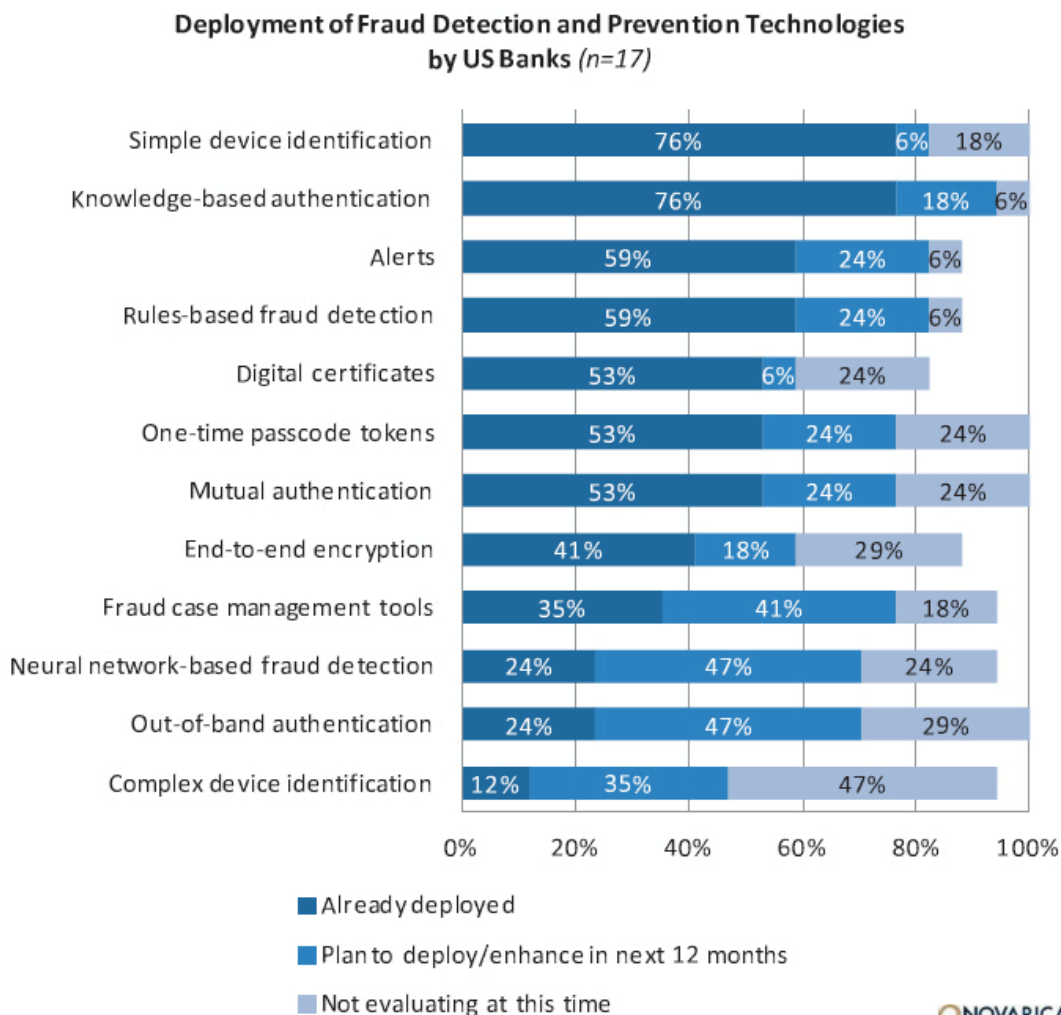
Financial institutions will increase their security spending slightly over each of the next several years in order to attempt to stay ahead of hackers and social engineers, who are continuing to become more creative in the ways they attempt to compromise accounts, said Julie McNelly, senior analyst for Aite Group, Boston, Mass.

In a survey of large and mid-sized institutions representing more than 50 percent of the accounts in the U.S., Aite discovered that business online fraud is of particular concern. Unlike consumers, business customers are not always protected in the event

of phishing and similar schemes that can enable the fraudster to drain the account, according to McNelly. There have been several cases in which businesses have seen their accounts compromised, then the money withdrawn via ACH or wire transfers. Aite projected that North American businesses lost \$210 million in 2011 from corporate bank account takeovers.

“The trend line of malware is alarming,” said McNelly. “In 2010, there were more than 20 million malware attacks, and the growth is continuing at a 26 percent annual pace.”

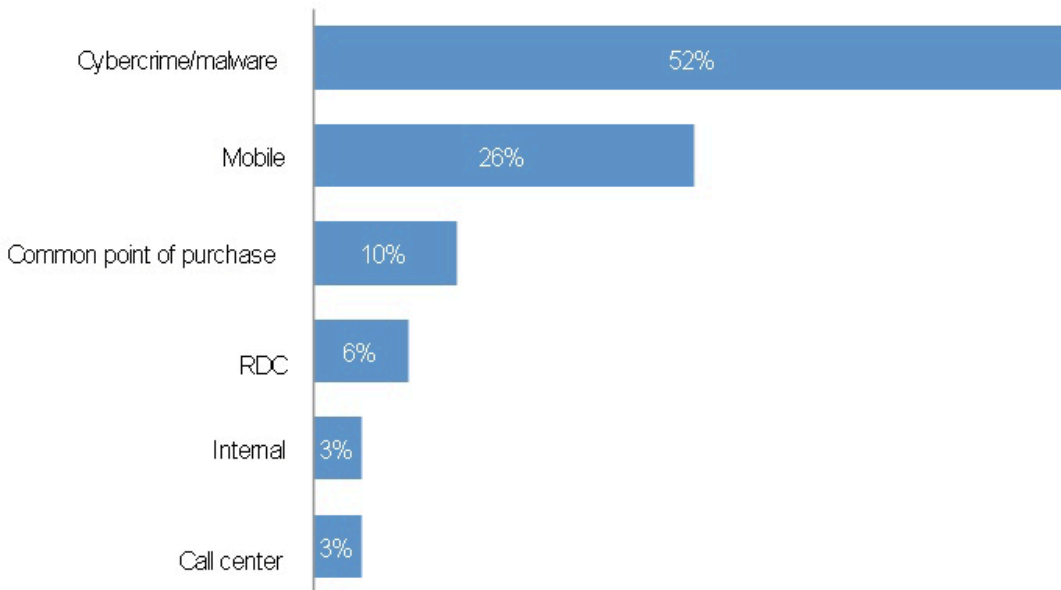
Yet, business customers are mostly complacent in assuming their banks have adequate protection, according to an IDC Financial Insights survey of corporate treasury managers. The businesses see financial institutions as trusted partners, so they look to banks to determine what controls to use and expect the banks to maintain appropriate security levels.



Source: Novarica

Large banks continue to be the primary targets due to the sheer size of their customer base, providing the fraudster with additional targets, but community banks and their customers are seeing an increasing number of spearphishing attacks (targeted phishing), according to Sawyers.

Q. What are the emerging types of fraud that will cause the most pain over the next two to three years? (N=30)



Source: Aite

Among the newest schemes is “smishing,” phishing via SMS. Another scam that emerged near the end of 2011 were fraudulent e-mails appearing to come from NACHA – The Electronic Payments Organization claiming that an ACH transaction had failed. The emails contained malicious links and were blamed by the FBI for an undetermined number of corporate bank account takeovers.

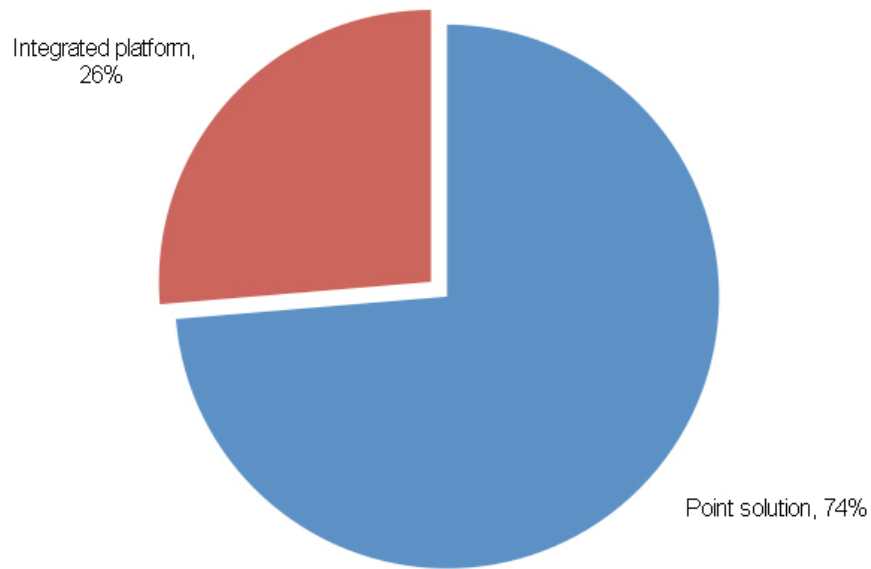
For consumer banking, the FFIEC recommended financial institutions have layered security technology and multifactor authentication to go beyond the simple questions because fraudsters can find the answers to the “What is your mother’s maiden name?” and similar questions through Facebook and similar sites.

Additionally, the FFIEC’s requirement that financial institutions “promote security in electronic banking” includes formal assessments that are to start in January, making technology spending in this area a high priority.

However, the FFIEC’s guidance stops short of recommending any specific technology.

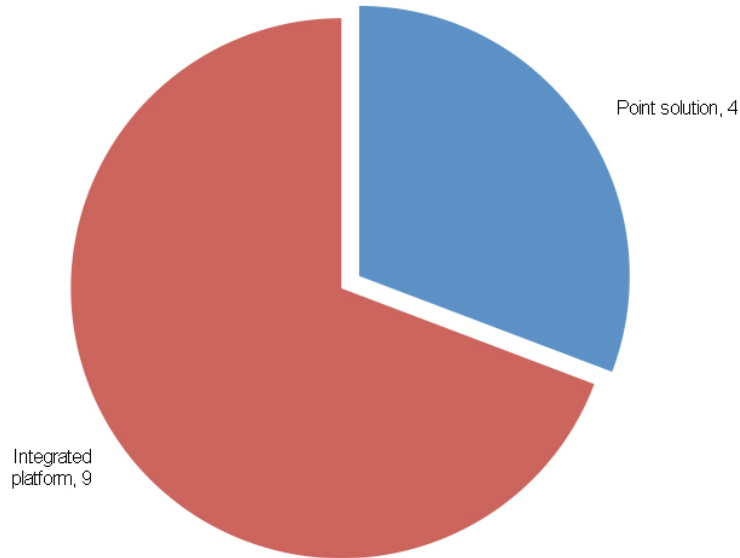
For business accounts, banks are upgrading technologies to include behavior analytics, complex device identification, secure browsing and “out of band” authentication, observed McNelly.

Preferred Approach to Incorporating Online Fraud Mitigation Solutions Among Top 35 North American FIs (n=19)



Source: Aite

Preferred Approach to Incorporating Online Fraud Mitigation Solutions
Among Midsize North American FIs (n=13)



Source: Aite

“Authentication is not just a first-line defense against fraud, which last year totaled \$37 billion,” noted Phil Blank, managing director, security, risk, and fraud at Javelin. “It’s also a way to increase an FI’s customer base. Almost half of consumers in 2011 indicated that robust identity verification methods are compelling features when choosing a new FI. FIs can incorporate messages about successful authentication methods into marketing materials to attract new customers and retain existing ones.”

E. Social Media

Social media is becoming an essential, low-cost way of acquiring and retaining customers, though many financial institutions are still determining how to use social media to accomplish those goals, said Shaw Taylor, head marketing consultant for Beyond the Arc, Berkeley, Calif.

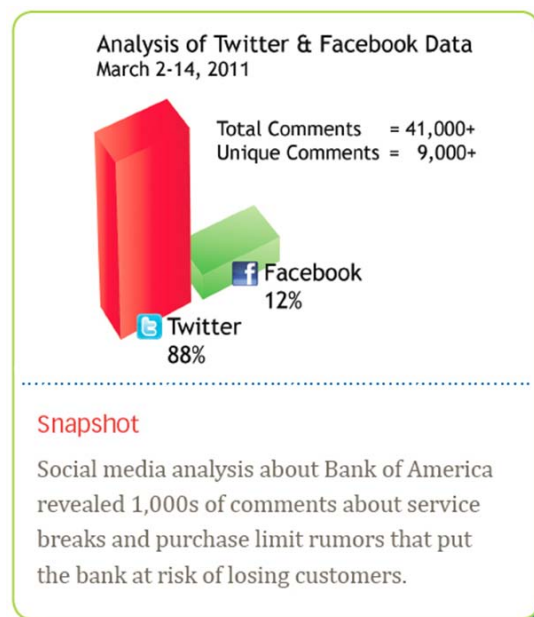
A few financial institutions are already showing success with social media campaigns. For example, Chase leveraged social media and corporate charity events to build brand awareness. The bank established a Facebook page for the event and

encouraged people to “like” it. The bank engaged these customers and prospects before and after the event, promoting different products and services throughout the campaign.

Other banks successfully use Twitter to keep customers engaged. Wells Fargo has two full-time staff solely devoted to monitoring and responding to tweets about the bank, said a source. The bank proactively reaches out to the individual if there appears to be an opportunity to add value. Customers complaining about long lines at the branch or a malfunctioning ATM, for example, are likely to receive a direct response and action by the bank. Wells Fargo also uses Twitter feeds to improve staff morale, for example, by forwarding positive tweets about a personal banker to that staff member.

Similarly, Citibank has gone as far as to develop a dedicated social and mobile media team, according to King. “Social media represents a significant shift in bank technology spending. Banks have been accused of being out of touch,” said King. “Social media is the easiest way to address those concerns.”

“Banks need to budget for and listen to social media,” said Taylor. “They need to collect the data and respond to their customers. It’s a two-stage approach. They need to monitor and then analyze the comments.”



Source: *Beyond The Arc*

King agrees, saying that financial institutions need to monitor consumer comments made via social media in order to address complaints quickly, and to ward off any mushrooming of negative sentiment.

Sawyers adds that bank-branded YouTube videos are excellent, inexpensive ways of engaging customers and prospects.

Social media can be a critical element in winning a customer's loan business, analyst Craig Focardi of TowerGroup said at the 2011 Mortgage Bankers Association Annual Convention and Expo in Chicago.

"Social media isn't how the lender closes the loan," Focardi stressed, but is instead how the conversation gets started on the loan – and the loan doesn't get made at all until the conversation gets started. Another advantage of social media is that it builds trust, a very important element for bankers today after the banking industry's problems of the last few years. Focardi's comments occurred about the time a couple of hundred Occupy Wall Street protestors were demonstrating outside of the convention.

"Longer term, we believe that banks will find other ways to leverage their engagement with social media, going beyond the approaches currently being undertaken," said Josefowicz. "Risk management, high net worth customer acquisition and credit decisioning are among the areas that may benefit."

Shaw believes social media provides valuable insights across lines of business and is a component of valuable information and insights which exist from other bank sources, such as CRM platforms, customer surveys, referral sources and notes from relationship managers.



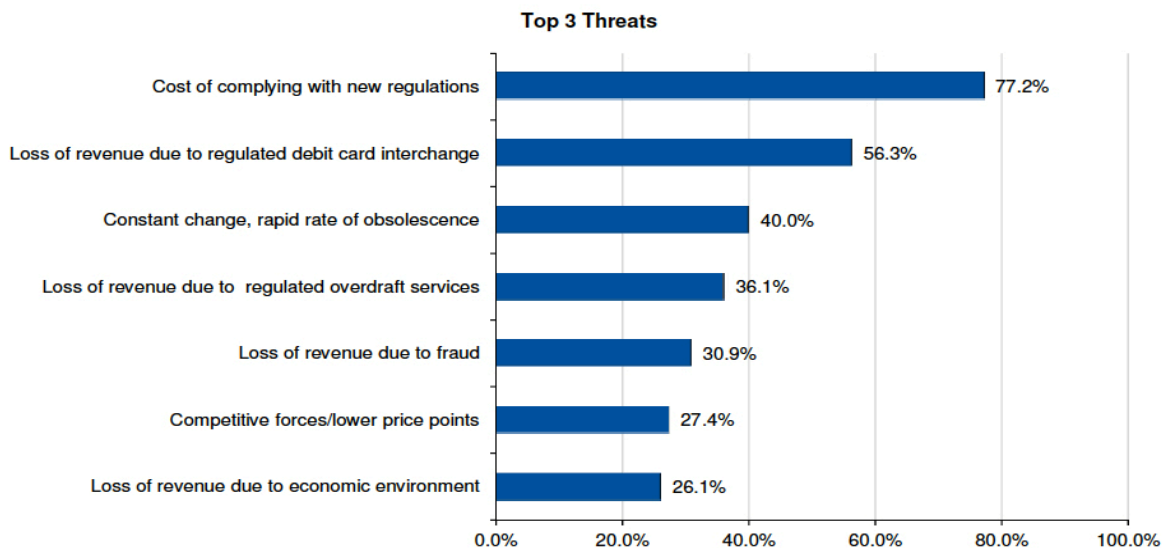
Source: *Beyond The Arc*

F. Community Banking

Community financial institutions face higher relative compliance costs than do larger institutions, even though many of the smaller banks are exempted from some of the Dodd-Frank rules, many experts agree.

Challenge of Regulatory Compliance

What are the biggest threats to your bank's payments strategy?

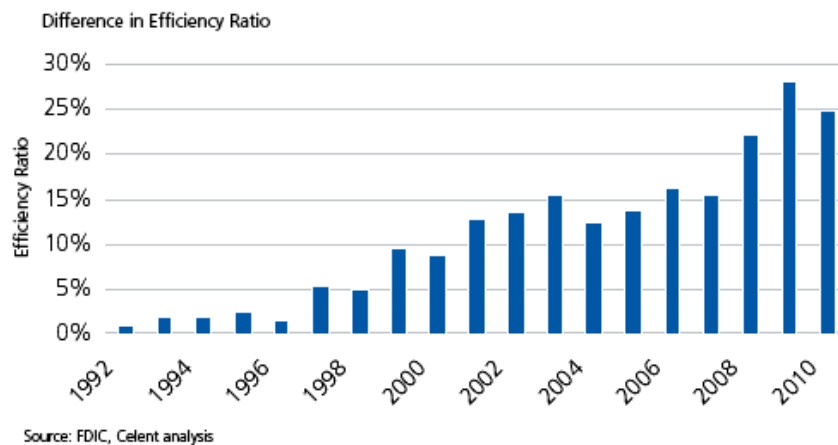


Source: *ICBA*

Community banks also tend to have lower efficiency ratios, and data indicates that they have lost deposits to the nation's largest banks. According to a report from Celent, banks with more than \$10 billion in assets have a 35 percent share of deposits today, up from 11 percent in 1992.

“The difference in efficiency ratios between the smallest banks and the largest has grown from just about nil to about 25 percent,” Celent senior vice president Bart Narter said in the report.

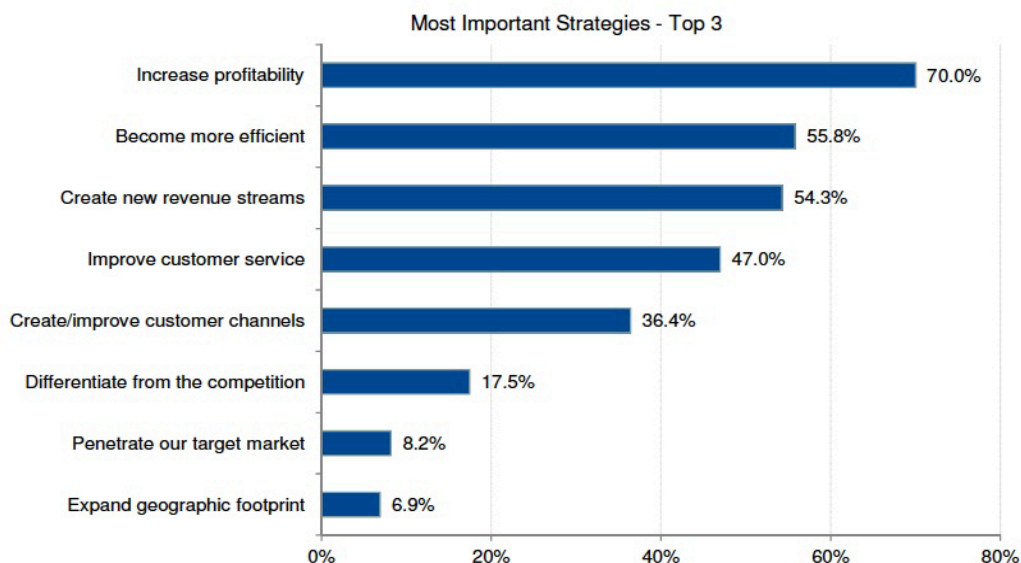
The Difference in Efficiency Ratios Between the Smallest and Largest Banks Is Still Increasing



Source: FDIC, Celent

Commitment to Payments Strategy

Please rank the importance of the following strategies to your community bank.



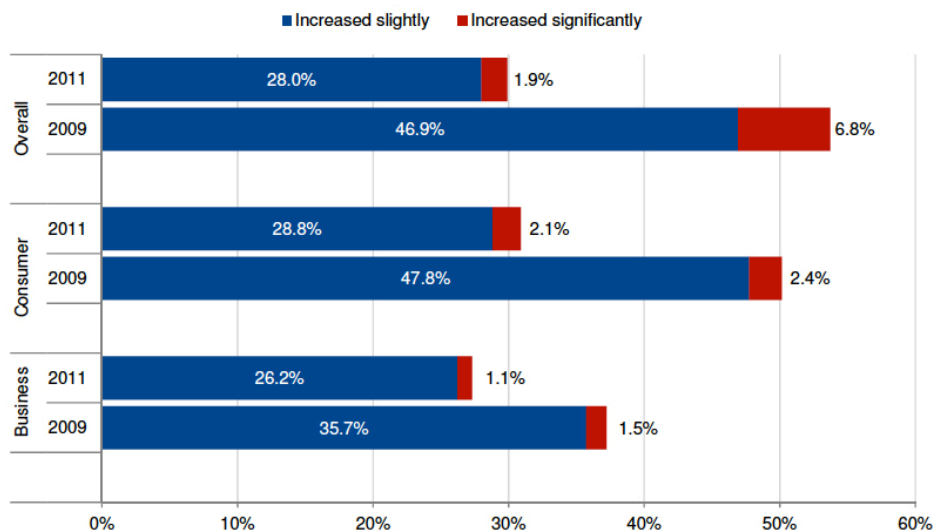
Community banks' payments strategies are challenged by increased fraud and compliance costs, according to a nationwide survey released by the ICBA. The 2011 ICBA Community Bank Payments Survey, conducted every two years, revealed that more than 25 percent of respondents ranked compliance costs as their top threat and 75 percent cited it among their top three.

"The 2011 ICBA Community Bank Payments Survey confirmed that increased fraud losses—coupled with overly-burdensome regulation—is of serious concern to Main Street community banks," said Viveca Y. Ware, ICBA senior vice president, regulatory policy. "Compliance costs also represent a large threat to community banks' payments strategies. Policymakers need to realize that regulation, especially when dealing with revenue streams, will impact Main Street."

As a result of increased fraud and increased regulation, community banks are reporting declining payments revenue. In fact, 40 percent of respondents indicate that their consumer payments revenue has decreased over the past year, with 10 percent reporting a significant decrease. All the while, debit card and check-fraud losses continue to escalate.

Declining Payments Revenue

Which of the following BEST describes the annual gross revenue of your bank's payments products and services this year as compared with last year?



Source: ICBA

The recent Occupy Wall Street movement and consumer complaints about large financial institutions provides community banks with the opportunity to put forth a positive image by showing they can fulfill customers' financial needs while avoiding the missteps of larger financial institutions, according to Sawyers.

He sees social media and other marketing technologies as critical in this effort, pointing to a bank's social media strategy as a key element in promoting a positive image.

Beyond social media, community banks are continuing to make inroads in mobile banking, according to Sawyers. "Mobile remote deposit will take mobile banking to the next level," said Sawyers. "It will breathe new life into remote deposit capture for banks' business customers."

Sawyers added that core providers have added features and services that enable community banks to enter the mobile banking and mobile payments arena for a relatively low cost.

Vendor management is another hot issue for community banks, according to Sawyers. "Bankers want to make sure that they are conducting proper due diligence in their initial vendor selection and then monitoring related risk on an ongoing basis."

G. Branch Technology

Financial institutions will add technologies to help transition the branch to provide better sales and relationship marketing capabilities and will de-emphasize transactions as they continue to move to mobile and Internet banking transactions, according to Josefowicz.

Crone said that banks are starting to recognize the sharp decrease in branch transactions over the last several years, as evidenced by a slowdown in sales of teller and branch platform technologies. Crone says banks hadn't until recently recognized the decline in branch transactions relative to the increase in transactions via other channels.

One of the improvements banks will make at the branch in 2012 is better visibility into a customer's entire banking relationship to better see cross-sales opportunities, Capachin adds.

Like many other experts, Powless expects to see branches transition away from existing transaction centers and evolving into sales centers.

Banks are carefully rethinking their spending on the branch channel as branch transactions drop more than 10 percent per year, observed King. The declining transaction trend is not new, but banks were still expanding branch networks until recently, which King blames on inertia. He expects to see banks repurpose some branches and close others in 2012.

By contrast, one of the top branch technologies of the last few years, remote deposit capture, has reached maturity, with only a 10 percent increase in new adoptions in 2011 and little in further growth expected in 2012, according to Celent.

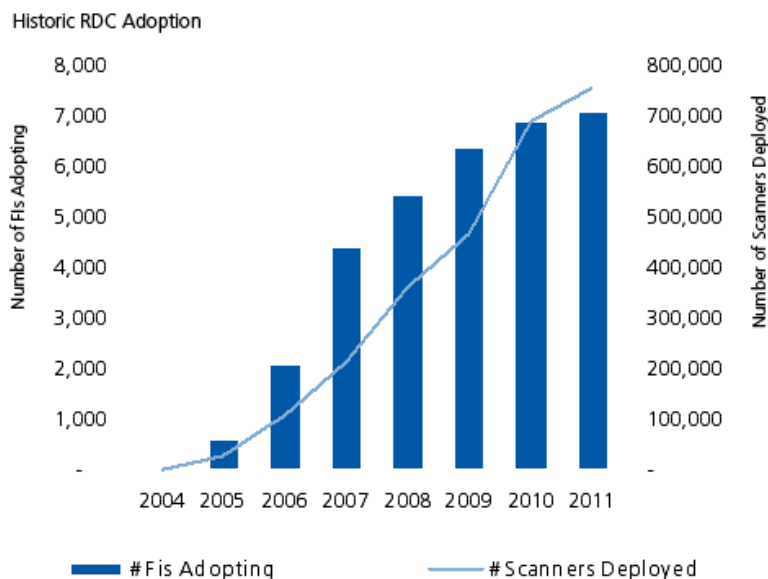
“Banks are closing more accounts at the branches than they are opening,” Crone says. “The new frontier is online account opening.”

“By encouraging customers to use online account opening and mobile deposit capture, the banks can further drive down the costs of branch operations while also providing better service to customers,” said Crone. Mobile deposit capture for business checks is particularly intriguing, Crone says, because the majority of small business branch transactions are for the deposit of a single check – a relatively costly transaction from the bank’s perspective.

Crone says that mobile applications can also be used to help identify the customer (via app on the cell phone) as he comes into the bank, enabling the teller to greet the customer by name and have account information ready.

Similarly, Powless expects to see a decrease in brick and mortar branch spending as financial institutions recognize the preferences of Generation X and Generation Y customers, some of whom may never go into a branch. So banks will invest in technologies that help them engage customers on a remote basis, including an array of customer-facing technologies like smartphones and tablet devices, Powless explained.

Lowest Client Growth Rate in Six Years



Source: Celent

H. Cloud Computing

While cloud computing is all the rage in retail and many other industries, banks are for the most part, playing catch up, according to CCG Catalyst's Schaus. They are behind because banks were in survival mode the last few years and were not looking too far ahead in terms of technology. Now, however, banks that have survived the downturn are looking to better control costs, and many of the concerns about cloud computing in terms of safety and reliability have been answered.

As part of improved cost management, Powless expects banks to increasingly outsource compliance and other non-core competencies, taking advantage of the efficiencies and expertise offered via the cloud and outsourcers.

Helping to alleviate those fears, according to Schaus, was the movement of long-time trusted industry core providers such as Jack Henry & Associates starting to sell cloud-based products featuring Microsoft 365 and similar solutions.

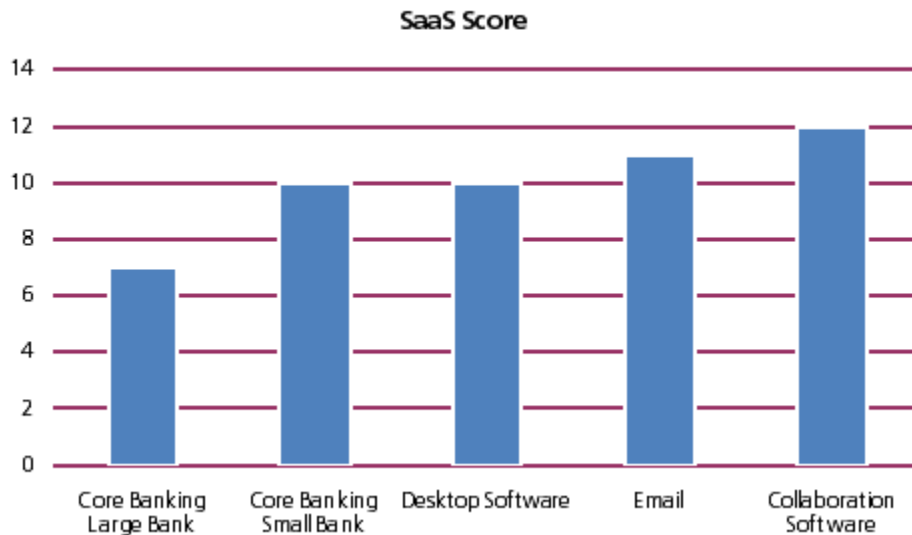
Forbis said his company has generated growing interest in cloud-based solutions.

With those concerns addressed, banks are moving to public clouds for non-sensitive materials and to private clouds for more sensitive data, much like the movement in other industries.

Gartner's 2010 CIO survey identified cloud computing as the second most strategic technology investment for CIOs globally.

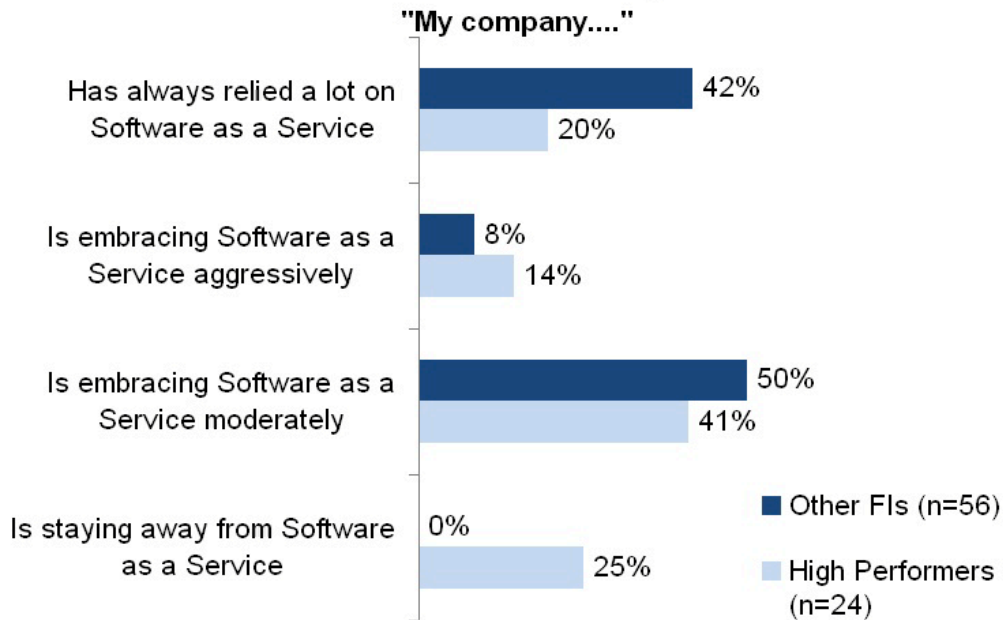
In a report on cloud computing and Software-as-a-Service (SaaS), Celent's Bob Narter said, "In many ways SaaS on the cloud can offer superior service in areas such as archiving, disaster recovery, business continuity and availability."

Collaboration Software Scores the Highest for SaaS



Source: Celent

Q. Which statement best describes your institution?



Source: Aite

Schaus expects cloud computing to continue to grow among financial institutions as they look for ways to cut costs, and expects most of the growth will be through private clouds because security and compliance concerns will keep financial institutions from using public cloud capabilities.

I. Small Business

Small business will provide financial institutions with the opportunity to make up some of the deficit in earnings from lower first and second mortgages and reduced fee income as a result of the Durbin Amendment, according to Josefowicz.

Schaus adds that many banks are still using the same technology systems for small businesses that they did 20 years ago. Josefowicz believes small business technologies had taken a back seat to more pressing needs the last few years, but the need to generate additional revenue makes 2012 a year for additional investment in this area. "You can't do everything at once," said Josefowicz. "Consumer and commercial had sucked all of the air out of the room the last few years.

Capabilities like straight through processing and online account opening, which are well entrenched on the consumer side have yet to be instituted for small business by most financial institutions, according to Josefowicz. Electronic underwriting is another area that could see some investment in 2012.

Banks will be investing in electronic data capture, internal processing and electronic underwriting for business loans and on technologies to streamline account opening on the deposit side, according to Josefowicz.

J. Other Technologies

A few financial institutions are starting to use telepresence to enable customers to consult with centralized experts for mortgages, retirement planning and other services. Telepresence generally refers to a set of technologies that enables people to give the appearance of being present at a place other than their true location. Video is helping some of the largest financial institutions reduce their staffs at some branch locations, according to Capachin.

Banks that have not already done so will be upgrading their ATM technologies in order to bring them up to Americans with Disabilities Act (ADA) standards (see Besselievre's article).

Many banks have gone without upgrading their core systems since the upgrades made in conjunction with Y2K, according to Forbis, who says some financial institutions are considering upgrading core technologies in 2012.

Financial institutions will also be looking to improve their online account opening processes. According to Javelin Strategy & Research, financial institutions lost at least \$873 million in potential revenue as 5.8 million customers attempted and failed to open accounts online. Many of these customers abandoned their efforts and took their accounts elsewhere.



IV. Featured Articles

Top Ten Trends Impacting Bank Technology for 2012

By Jimmy Sawyers

Novarica Survey Shows Banks Will Focus More on Small Business During 2012

By Matthew Josefowicz

Commercial Lending in 2012

By Jeanne Capachin

Plotting the Course in the ATM Channel

By Michael Besselievre

When it comes to Mobile Payments...

By Richard Crone and Heidi A. Liebenguth

Cloudy Days Are Here

By Mike Scheuerman

2012: Mobile Banking Reality Check Triple Play is Dead...

By Robb Gaynor

Seven Steps to Customer Mobility

By Scott Abeel, Q2ebanking

Top Ten Trends Impacting Bank Technology for 2012



By Jimmy Sawyers, Sawyers & Jacobs LLC

Back in 1979, in certain subcultures, a 14-year old boy's social status was partially influenced by his high score on popular video games. Many quarters were spent in skating rinks, bowling alleys, convenience stores, and arcades in pursuit of "vid-ja" game domination. One such game of the era was Asteroids, the subject of much of my misspent youth and misspent quarters.

For those of you familiar with the game, you will recall that keeping one's spaceship stationary was a bad strategy, resulting in certain death by colliding with asteroids hurtling through space or by being picked off by missile-firing flying saucers. To achieve the maximum high score of 99,990 points, one had to take the offensive, clearing the asteroid field down to one or two small asteroids then cruising forward in the spaceship to pick off the 1,000-point flying saucers. A miscalculation would result in the score rolling past 99,990 and back to zero, a real bummer for the bell-bottom blue jean, angel wing hair crowd of the day.

Looking back, the game of Asteroids taught some valuable lessons in business strategy. The player had to learn when to avoid threats and when to destroy them; which targets represented the highest value; restraint, to avoid the dreaded rollover to zero; how to maximize one's investment (quarter); and how to deal with new market entrants (asteroids and flying saucers) gunning for your spaceship (business).

One thing was certain: "Hunkering down" was not a winning strategy. Bankers paralyzed by the events of the past few years would do well to employ "Asteroids Strategy" in 2012.

To jump start your bank's "Asteroids Strategy," we offer our annual top ten predictions:

Prediction # 1 - Core Processing Provider Oligopoly Leads to Continued Technology Stagnation But More Outsourcing

Consolidation of core processing providers over the past 10 years has arguably stifled innovation in this sector. One reason this market is tough to crack for new entrants is that most of the current core providers have successfully segmented their products and services to meet the needs of a range of banks, from de novos to multi-billion asset banks. Core processors will continue to acquire niche players and add their capabilities in 2012. Expect mobile banking, customer relationship management, and fraud prevention as the most common add-ons. Still, don't expect any earth-shaking innovations to come from core processors, most of which will maintain a harvest mode.

One interesting trend we have detected in our recent system selection engagements is pricing designed to encourage more banks to outsource core processing. In my previous 18 years of system selection consulting, the outsourced pricing was typically much higher than in-house and normally penalized banks for growth. In the past year, providers are pricing in-house systems much higher than outsourcing in an effort to encourage more banks to outsource. Currently, among community banks, it's a 50/50 split of in-house versus outsourced banks. Expect more banks to outsource as providers' core hardware platform profit margins decrease and pricing is tailored to drive bankers to data centers where providers' significant resources can be leveraged more effectively and profitably.

However, bankers will be wise to review their core vendor relationships and perform the necessary due diligence required to ensure they are paying a fair price and getting value for their most significant IT investment. Letting such contracts automatically renew for another five years without such a review is negligent. The goal of such due diligence is not to beat the vendor into submission on pricing. Instead, the goal should be to evaluate the status of the relationship and determine if value is being delivered and if the provider can support the bank's strategic initiatives.

Challenge Question: Is your bank getting the proper value out of its most significant and costly technology provider relationship?

Prediction #2 - Bankers Learn the Calculus of Customer Potential

In 2012, bankers will continue to struggle with understanding basic cause and effect regarding customer fees. Like the public relations missteps of Netflix (price increases and Qwikster) and Verizon (charging customers to pay bills online), bankers continued to step in it in 2011. As evidenced by the number of big banks in early 2011 that were

quite certain that debit card fees must be implemented to the number that were actually charging at the end of 2011, it's evident that some bankers do just fine driving the car when looking in the rear-view mirror but crash when looking out the windshield while having to maneuver a changing competitive landscape.

Especially in the age of social media, an action or event will produce a response to the action in the form of another event. Hit customers with a fee that is perceived as unfair and the customers will hit back online and en masse. This is the Asteroids equivalent of rolling back over to zero. We sometimes forget that, as Peter Drucker advised, "the purpose of a business is to create and keep a customer"...not repel customers.

Bankers' current use of supposedly sophisticated customer profitability systems resembles a child trying to build a Lincoln Log house without the green roof planks or the red plastic trusses. It's simply incomplete. Bankers are currently taking the small share of the customer's wallet they can actually see and making bad decisions with partial information, driving away good customers in the process.

The carrot is always more effective than the stick when dealing with customers. Bankers will learn this in 2012. Smart bankers will take a long-term view and learn to assess future customer potential instead of present customer profitability. Encouraging expansion of current customer relationships will translate into increased profits and loyal, long-term customers.

Challenge Question: Does your bank assess customer potential?

Prediction #3 - Contactless Payments Take Off

Never bet against Google. The payments system will undergo continued change with wireless payments gaining traction as Google Wallet and similar systems earn acceptance. Google will use its rising Android market share as a launching pad to grab a piece of the payments market. Bankers sitting on the sidelines will suffer as their more aggressive and innovative brethren jump in the game and implement wireless payments systems in addition to P2P offerings using systems that allow the online transfer of funds using one's email address or mobile phone number.

As the payments system changes from paper and plastic to wireless, early moving bankers will take advantage of securing their payments franchise and riding the wave of innovation.

Challenge Question: Will your bank be an active participant in the wireless and P2P payments revolution or will it lose this battle to non-bank competition?

Prediction #4 – The Account Opening Process Gets Better, Faster, and Streamlined

In most banks, the current account opening processing is akin to a trip to the DMV, a messy, time-consuming process heavy on paper and short on service. Expect platform systems, largely unchanged since 1992, to integrate tablet computers and web-based services into the account opening process. Why sign paper when one can sign an iPad? Or, better yet, bankers will finally get on board with the electronic signing process (while complying with the E-Sign Act), eventually offering customers the ability to sign via the web, voice (biometric) signatures, signature pads, or mobile devices. We sign our tax returns electronically. Why should our bank documents be different? Streamlining this key business process is long overdue and today's technology makes it possible to do so.

Switching banks can be a royal pain due to sticky services such as ACH and online bill payment. That's good news for some banks but bad news for community banks that could benefit from big banks' recent mishandling of customer relationships. If banks leave it to customers to handle the switch alone, inertia will win out and customers will stay put, regardless of how poorly their big bank treats them. A "customer concierge" service for such moves would provide the hand-holding, communication, and accounting help to facilitate an account switch. The effort expended now will pay huge benefits in the future by building long-term customer relationships based on trust and responsiveness.

Challenge Question: How long does it take to open a checking account in your bank and how easy is it for new customers to switch to your bank?

Prediction #5 – Insatiable Appetite for Wireless Access Rules

According to a 2011 report from the Yankee Group, consumer demand for wireless broadband will increase sixtyfold by 2015. With most Americans having to choose

between AT&T and Verizon, we don't exactly have real competition in the U.S. wireless broadband market, a fact that might slow growth. Hundreds of billions of dollars in private investment have been made in 4G LTE (Long Term Evolution) over the past few years. In the 2009 Harvard ranking of 30 countries with broadband availability and usage, the United States was ranked number 17. South Korea was number one. Such gaps must change in the U.S. to drive economic growth and allow more U.S. citizens to participate in the global economy. Expect 4G hotspots to be big sellers in 2012.

Been reluctant to install wireless in your bank? Your employees will beat you to the punch as 4G hotspots will become the new tech accessories in offices across America, offering untethered Internet access, mobility, and convenience. Be prepared. Better to control a new technology than to ignore it.

Challenge Question: Does your bank offer secure wireless access?

Prediction #6 – Bankers Expand Their Social Media Presence

Beyond just slapping up a Facebook page, banks must move social media to the next level. The opposite of love is not hate...it is indifference. Big bank customers are doing lots of hating these days. Other bank customers appear indifferent. Why? Are banks viewed as boring entities that are necessary but not worthy of the effort required to love or hate? Have banks become the financial services equivalent of a neglected spouse? It's time that bankers light some candles and turn on the charm.

Banks that have a social media presence must continue to execute an effective social media strategy to provide updated content and to take advantage of increased consumer adoption of social media and the fact that social media is becoming more mobile as devices improve.

Facebook will leverage its 350 million mobile device users as it partners with Taiwanese mobile phone maker, HTC, to build a smartphone that will run a modified version of Android and will integrate Facebook apps. Code-named "Buffy," this Facebook phone will continue to make the smartphone a more social device.

Bankers must embrace Yelp!, Twitter, LinkedIn, QR codes, hashtags, foursquare, Tumblr, mobile apps, and YouTube, in addition to Facebook, to expand their social media presence. Don't leave Google out of this mix as it will expand how it incorporates search data in early 2012, making it very important for banks' websites to structure data

appropriately for Google to read it. An expanded social media presence also helps one's Google rankings.

Challenge Question: How innovative is your bank when it comes to social media?

Prediction #7 - Mobile Remote Deposit Increases Customer Convenience and Reduces Branch Traffic

Savvy bankers will take mobile banking to the next level by adding mobile remote deposit to their suite of mobile services. Pioneered by USAA, this convenient technology that allows customers to snap pictures of checks to deposit using their smartphones will be available to most banks in 2012.

How many retail customers visit your bank to deposit a single check? How many small business customers are using 30-90 document-per-minute (DPM) scanners to scan just a few checks each day? These are the perfect customers for mobile remote deposit. Expect branch traffic to decrease as mobile remote deposit technology becomes widely adopted.

Challenge Question: Is your bank positioned to offer mobile remote deposit in 2012?

Prediction #8 – Big Data Drives Big Decisions

The amount of data in banks continues to grow exponentially as core and imaging systems expand and as ancillary systems experience increased usage. The range of data sources, their velocity through the bank's systems, and how to capture, store, and retrieve such data will present challenges. In 2012, bankers will seek to unlock these high volumes of data and transform it into useful, strategic information.

"Big data" is the term applied to very large data sets that cannot be managed by normal software tools. Whether a bank is dealing with terabytes, exabytes, or someday zettabytes (not yet achieved on any system), new approaches will be required to deal with this rapid data expansion.

Big data will not be used to benchmark compared to peers, a futile exercise for most banks. Instead it will be used to look inward to the bank's productivity, efficiency, and decision-making ability to craft strategies and monitor performance unique to the bank and its markets. In response to this new challenge, expect new, more sophisticated data management solutions to be introduced in 2012.

Challenge Question: Is your bank managing its data effectively?

Prediction #9 - IT Examinations Expand in Scope

Expect regulatory exams to be tougher than ever in 2012, especially in the IT area where the scope has expanded and examiners are now more knowledgeable about network security issues. Bankers must have the proper IT audits, network vulnerability assessments, risk assessments, strategic technology plans, and related documentation to successfully pass the extensive IT examinations of 2012.

A plethora of risk assessments will be required and will grow in number with the Enterprise Risk Assessment (ERA) taking center stage as “The Mother of All Risk Assessments” in the coming year. Bankers will use the ERA to identify threats to the enterprise and mitigate risk appropriately across all banking functions, a worthwhile exercise in today’s banking environment.

Challenge Question: How Prepared is Your Bank for its Next IT Examination?

Prediction #10 – Bank Failures Continue Downward Trend as Generational Knowledge Gap Increases

As we predicted last year, bank failures peaked in 2010 with 157 and decreased in 2011 with 90 failures (as of December 7, 2011). As a result of this welcome trend, the 2012 FDIC operating budget is 15.4 percent lower than the 2011 budget and reduces employee headcount by 565 positions, with further reductions in 2013 and beyond.

Now is the time for bankers to increase continuing education investments for their people by sending them to top banking schools and industry-specific education events. The generational knowledge gap will widen in 2012 as veteran bankers retire. Many community banks’ top leaders are over 60 years of age. This creates incredible opportunities for those future leaders who are educated and capable of taking the reins and running their banks. Otherwise, many banks will be forced to sell as the resulting leadership vacuum and “brain drain” kills their ability to compete with younger, more enthusiastic, and hungrier banks who have continued to invest in their people and in turn the bank’s future.

Challenge Question: Does your bank have a succession plan to groom new leadership in the coming years?

Summary

To successfully execute *Asteroids Strategy* in 2012, remember to keep moving forward, remain aware of new market entrants, maximize technology investments, and be aggressive but do not overreach your goals and roll back to zero.

Best wishes for a successful 2012 filled with high scores and winning tech strategies.

Sawyers & Jacobs LLC helps banks in four major areas: Technology Planning, Risk Management, Network Solutions, and Business Continuity. Our mission is to help our clients use technology securely, effectively, and profitably to better serve their customers, comply with laws and regulations, contain costs, and compete. We make banks better. To learn more, visit www.sawyersjacobs.com, call 901.487.2575, or email jsawyers@sawyersjacobs.com.

Novarica Survey Shows Banks Will Focus More on Small Business During 2012



Matthew Josefowicz, Partner and Managing Director, Novarica

Small Business is gaining significant attention among banks, as they search for profitable growth opportunities in a slow economy and try to make up some of the revenue shortfall in the consumer segment.

Aside from bringing with them much higher average DDA and credit balances than personal customers, the small business owner offers banks the potential for business and personal relationships, employee account openings, and broader sales opportunities for merchant services, cash management and payroll services.

In the past, most banks have consistently underinvested in technology to support the small business segment. This is changing, however, as we discovered in a recent survey we conducted among the Novarica Banking Technology Research Council and banking clients of our parent company, Novantas. Our survey focused on small business banking and related IT plans for 2012. Of the 31 banks that participated in the survey, 12 have assets greater than \$20 billion, 12 have assets between \$1 billion and \$12 billion, and 7 have assets below \$1 billion.

Our survey indicates that more than half of banks are increasing their small-business-related IT spending for 2012, more than in any other major area. Banks are investing in technology capabilities needed to support channels (online, mobile, phone, and branch), market and customer analytics, and straight-through processing. They are also looking towards social media and other emerging technology areas that can assist them in understanding and serving their clients more effectively and productively, while attracting profitable new clients.

Priorities For the Year Ahead

The survey provides a number of insights into banks' 2012 IT priorities for the small business segment, including:

Branch Sales Tools. A recent Novantas study shows that for the majority of banks most small business revenue comes from branch-managed customers. A companion Novantas study provides evidence that, across the entire network, branch productivity has declined 34% between 2003 and 2010.

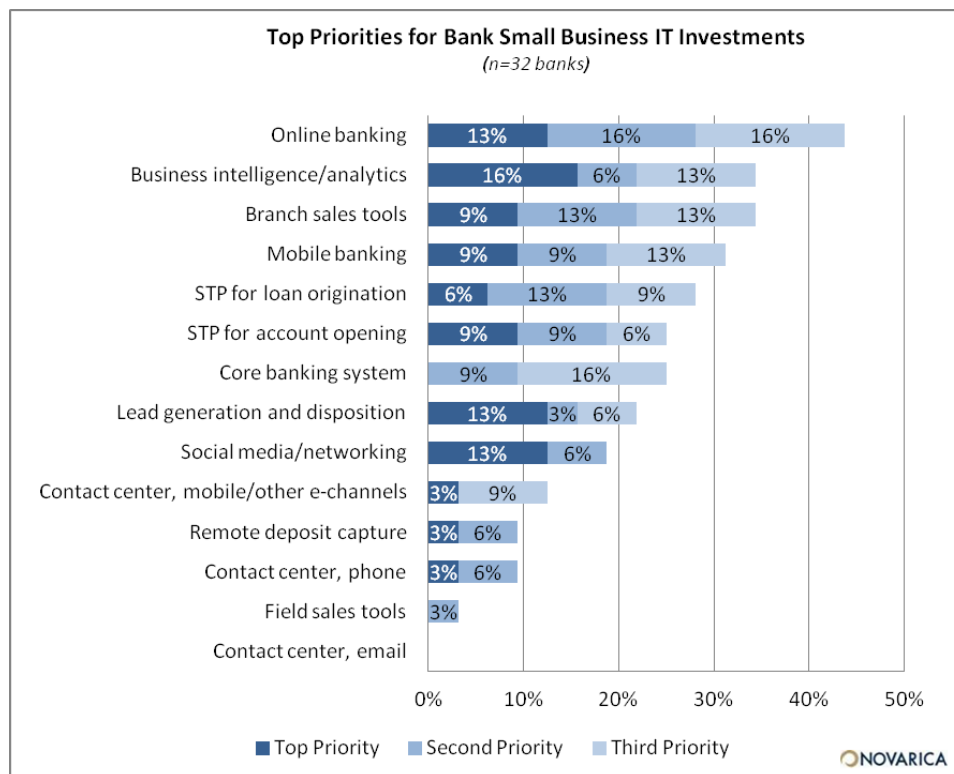
Not surprisingly, therefore, branch sales tools are a top priority for almost half of large banks next year. Overall, more than 1/3 of banks in the sample included branch sales tools in their top three priorities for small business in 2012. These sales tools will reinforce efforts to repurpose branches to become more sales-oriented. They also reflect changing staff priorities at branches, with less experienced staff becoming more integrated in the sales function, notably the Small Business Specialist (SBS) and the teller. Technology can provide valuable support to less experienced and less qualified staff tasked with supporting and cross-selling to business customers who come to the branch.

Digital Channels. Given the shift in customer transactions to the online channel, online banking is the most common high priority area for IT investments during 2012. This is despite the fact that more than four out of five banks view their online banking offering as already “acceptable” or better. Mobile banking is also a high priority for banks, as they anticipate customer usage will increase significantly over the next two years with greater adoption of smartphones and mobile banking becoming more generally accepted by bank customers.

As an interesting side note, despite the fact that larger banks (assets > \$20bn) were the early adopters of mobile banking, many remain unimpressed with their current offering for the small business customer: almost three out of five large banks see their mobile banking offering as less than acceptable. More generally, the largest banks are less happy with their current delivery channel technologies than are their smaller competitors, suggesting an impatience with the pace of customer adoption of self-service technologies and a sense of urgency in achieving the cost savings promised through automation, self-service, and non-branch channels.

Business Intelligence and Market/Customer Analytics. Many CIOs point to an inherent weakness in how their bank uses and analyzes in-house customer data, particularly for small business sales resource deployment, service, marketing, and risk management purposes. With banks facing a challenging environment, their ability to focus resources on the higher return customer and market opportunities, more

effectively deploy sales resources (both across channels and across markets), and make smarter customer and prospect decisions will gain importance and hinge on their data and analytics capabilities. More than one in three banks view this area as a small business priority for 2012.



Straight-Through Processing (STP). Banks are not content with their existing capabilities for account opening and loan origination, and many are looking to invest in technology solutions to automate more of the process in order to reduce costs and improve service. This is partly to address a perceived need by banks to deploy technologies that provide quicker decisions or responses to customers and to allow them to do more online, given the impact on customer expectations of their experiences in other sectors (online purchases, etc.).

Social Media. While most banks have actively embraced social media in one form or another for consumer marketing, few have turned much attention to the way social media can improve relationships with their small business customers. Notably, midsize banks seem to be putting more emphasis on this area (33% of midsize banks and 25% of small banks compared with none of the large banks in our survey). This

may reflect the heavy focus among community banks on maintaining and strengthening personal relationships with their small business customers.

Conclusions

Despite the challenging environment, banks are making optimistic plans for the coming year in terms of IT investments in small business banking. More than half of all banks are planning to invest more next year in technology to support small business customers.

As they develop their IT and business strategies, banks looking to succeed with small businesses would do well to consider the following:

Know the Market Opportunity and Customer. Banks need to improve their ability to identify, attract, retain, and deepen relationships (both business and personal) with the most profitable small business customers – particularly since there is evidence that a sizeable proportion of small business customers are unprofitable to the bank.

Staffing and Deployment. Deploying (or redeploying) sales staff, including specialists, in the locations of highest growth opportunity from both customers and prospects is critical in this era of tight resource budgets. Among staff that currently manage relationships with small business customers, many do not possess the right skills or experience to be effective. For customer retention, a better approach may be regular, remote contact with the small business customer in place of reliance on in-person relationship management for certain segments. Remote outreach also lowers the cost to serve as well as providing an option for the 24% of small business customers that are branch independent.

Value-Based Pricing. Relative to personal customers, small business customers are somewhat insensitive to price – they are too focused on their business. Providing the products and services that the small business needs and in a way that is most convenient for the small business customer should enable the bank to charge appropriately and serve the small business community profitably.

Data. Data on small businesses has become a big focus of credit bureaus and data vendors within the past couple of years. More effective targeting (for sales force deployment, generating quality sales leads, and specific offers) and credit decisioning will come with improved cross-referencing of individual (owner) and small business

information. Data vendors are greatly improving how they do this – and there will be an impact on small business banking as a result.

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Commercial Lending in 2012



By Jeanne Capachin, IDC Financial Insights

Leading up to the financial crisis, U.S. based community and regional banks were warned about over-reliance upon commercial real estate lending and the risks inherent in this profitable but riskier form of lending. Although these loan portfolios have not collapsed to the extent of residential mortgage portfolios, banks are re-balancing and shifting their emphasis to more traditional commercial and industrial (C&I) lending.

Despite this intention though, most institutions are struggling against slack loan demand – there are few good borrowers shopping for commercial credit as we enter 2012.

Competition for these good borrowers is strong, and funding sources remain cheap, leading to very competitive commercial loan pricing.

IDC Financial Insights and others are forecasting increased demand once a few changes occur. When rates are low, as they are now, commercial paper is an inexpensive source of liquidity for large corporations with sound credit ratings.

Access to cheap commercial paper is one of the factors that will change once rates inevitably rise. The second big factor that will change is general caution on the part of businesses – if businesses aren't making capital investment, demand for credit dries up.

Businesses have reined in expenses and have been stockpiling cash, which led to underutilized credit lines in 2011, but once the business outlook improves there will be a refocus on business investment and need for cash.

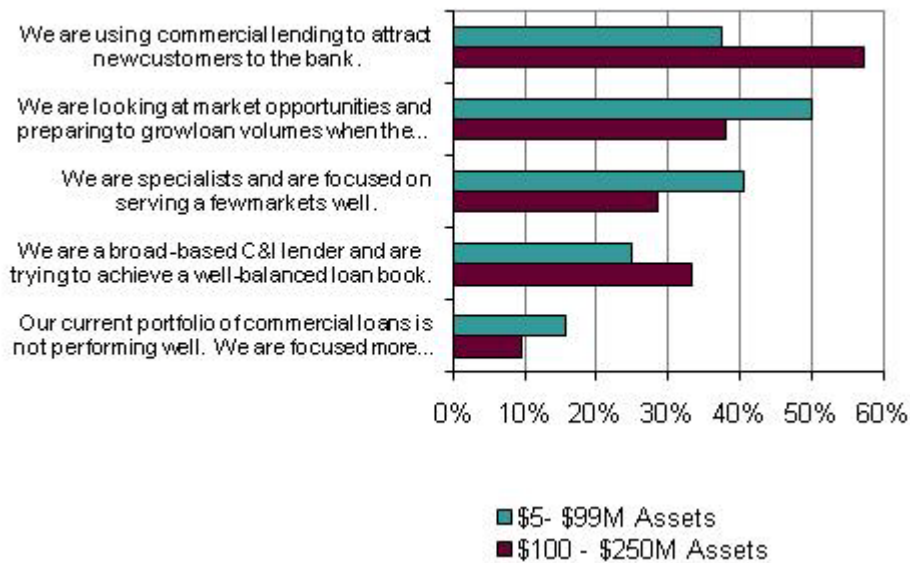
For now, there is excess supply. Large institutions are competing aggressively and easing credit standards for the best borrowers, trying to lure or retain these customers. These large institutions with strong balance sheets recognize that if they lead with credit, the lucrative fee-based business follows.

As shown in a survey conducted by IDC Financial Insights in late 2009, two-thirds of commercial clients park at least 70% of their treasury, trade, and liquidity

business with their primary credit provider. Recognizing this buying pattern and the importance of credit, banks are using their commercial credit capabilities to attract new customers. As Figure 1 illustrates, a majority of community and regional bankers are either ramping up their commercial lending origination now or are preparing now for the market turn-around.

FIGURE 1

Role of Commercial Lending



Source: IDC Financial Insights US Commercial Lending Survey 2010

These bankers are already finding it harder to compete with the larger institutions that are targeting some of their markets. Across all sizes of U.S. financial institutions, the Federal Reserve estimates that commercial loan portfolios have decreased in size by more than 20% since the crisis began, and well-capitalized banks are taking advantage by targeting specific customers or types of loans.

These banks either quickly shed questionable assets or simply had cleaner portfolios to begin with – and they are pressing their advantage. For community and regional banks to compete, they are investing in new commercial lending platforms, with an eye to a consolidated end-to-end software solution.

With the technology in place at most banks today, we see that bankers are trying to address 21st century problems with solutions developed in the 1990’s. And even beyond technology issues, commercial lenders are also more tied to manual processes and manual decision-making than other banking businesses.

What we find when we talk with staff supporting commercial lending, are a few different pain points – depending upon the roles of the bankers we talk to. Where lenders and commercial loan operations managers report business issues such as inadequate risk monitoring, manual data gathering, slow loan approvals, and inadequate profitability monitoring, IT staff are frustrated with the aging technology they must support. IT staff assigned to commercial lending, report systems that are hard to change with hard-coded, batch reporting capabilities. They are also frustrated with how difficult it is to integrate their current set of solutions.

Commercial lenders are shifting their attention away from workouts and back to loan origination. They are finding new challenges, new regulations, and new customer acquisition, and the need for improved controls, transparency, and monitoring, as a result – new investments in commercial loan technology are beginning. However, what we are seeing is just the tip of the iceberg. Investments made in 2011 addressed the most critical pain points and have focused on regulatory and bank policy compliance.

Stepping away from the front-burner needs, forward-thinking banks are also looking at their complete commercial loan origination and servicing infrastructure. They see the value of a single end-to-end solution, and are investing in pieces of a new infrastructure that will build toward a common platform.

Those institutions who make these more strategic investments will find that they have the tools they need to win those vital commercial relationships that provide stable interest and non-interest revenue flows for the bank, taking on the best credit risks and sending those lesser borrowers on their way to seek funding with more naïve bankers.

Looking Ahead to 2012

Bankers toiling within their institutions' commercial banking segments will find themselves better positioned than other areas of the bank – but they must still struggle against the same industry trends and fight for new investments.

Volatility remains in 2012, with much dependent upon economic recovery in the United States and Western Europe.

IDC Financial Insights remains cautiously optimistic that the need to generate more revenues and growth from commercial banking lines of business will spur investment – leading to a stronger foundation for growth and financial stability in this decade.

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Plotting the Course in the ATM Channel



Michael Besselievre, Cornerstone Advisors, Inc.

Banks that are not keeping abreast of the impending March 15, 2012, deadline for ensuring their ATM fleets are compliant with the Americans with Disabilities Act (ADA) could be headed onto a dangerous reef. The bad news is, navigating the new ADA requirements may require significant spending on ATM replacements and upgrades. The good news is, the new rules provide a perfect opportunity for banks to assess and improve this delivery channel and maximize its value.

Some more good news: any ATMs that have been replaced or added in the past few years should have the base technology to meet the requirements. That being said, the newer ATMs and their surrounding sites do not necessarily meet ADA requirements. Best practice banks will need to review all of their ATMs and locations and test for compliance. I won't go into the details of the requirements here, they're available from any ATM hardware/service vendor or from a quick Internet search, but below I have provided an overview of the requirements:

- Voice guidance for visually impaired customers with Braille instructions on the ATM on how to initiate this guidance. Note: this is not required for drive-up only ATMs.
- Height and reach requirements for the ATM controls.
- Physical key layout and visual key contrast requirements.
- Screen visibility.
- Accessibility to the ATM with no obstructions, and required clearances must be met at the front and sides of the ATM.
- Input and output privacy requirements must be at the same level for all customers.
- Audible output requirements related to specific information displayed on ATM receipts.

- In a location with multiple ATMs, only a single ATM must meet the ADA requirements. However, consider how disabled customers will be directed to this ATM and how their access can be prioritized.

Finding Fair Winds and Avoiding the Shoals

When financial institutions serve the needs of disabled customers, it is good not only for the collective soul of the organizations but can be good business, too. In 2006, the U.S. Census Bureau, through the American Community Survey, found that of the total civilian population in the United States 9.4 percent reported a physical disability and 4.3 percent reported a sensory disability. If we assume no change in these percentages from 2006 and a currently estimated U.S. population of 312 million, this would indicate that there are approximately 42.7 million people with physical or sensory disabilities in the United States today. The bank that ignores this sizeable segment does so at its own risk. As customers, many studies have shown that individuals with disabilities are extremely loyal to companies that not only meet mandated requirements but go the extra mile to be accommodating. Studies have also shown that people who do not have disabilities show higher levels of loyalty with companies that are highly accommodating to people with disabilities and companies that support disability related causes.

If attracting this customer segment isn't enough incentive, consider that any ATM that does not meet the ADA requirements by the March 15, 2012, deadline could be assessed a civil penalty of up to \$55,000 for the first offense and twice this for the second offense. Non-compliance can mean considerable financial, reputational and legal risks. A number of disability advocacy groups have been and will continue to be evaluating ATMs for non-compliance. They've made their case in the news and in the courts via lawsuits. Choosing to ignore the new requirements could well mean looking at a headline that reads, "*[Insert bank name] Disregarding the Disabled*" on the front page of the local paper.

Be Strategic Along the Course

While the primary driver of a bank's program to address this situation may be compliance, why not recognize it as a perfect opportunity to dust off the old ATM channel strategy or possibly develop a new ATM channel strategy? There are a number

of important strategic questions to consider and address while upgrading or replacing ATMs.

1. Is it the right time to implement ATM image deposit technology, allowing customers to deposit cash and checks without having to deal with envelopes and deposit slips?

If an ATM has to be replaced, it's typically less expensive from a long term, total cost standpoint to include the image deposit functionality with the new ATM acquisition than to retrofit that ATM later. ATM image deposit technology brings a number of benefits:

- Enhanced 24x7 service, while adding in mobile and consumer capture, provides a more consistent customer experience across all channels. Consider extending the window for deposits made via the ATM to be credited on the same-day. A large national financial institution recently extended this window to 9 PM. Another potential service enhancement to consider is immediate availability for cash deposits made via the ATM.
- Depending upon the bank's service philosophy and culture, the institution can begin the migration of deposit transactions to this lower cost channel, allowing branch staff to focus on more complex sales and service activities. A 2009 TowerGroup study estimated that up to \$1.24 could be saved per ATM image deposit transaction versus a traditional envelope deposit.
- Through ATM image deposit and real time validation, banks can significantly reduce "empty envelope," check kiting and closed account fraud.
- Processing and encoding errors associated with ATM image deposits are considerably lower than with traditional envelope based deposits, resulting in enhanced productivity through less research and adjustment activity downstream.
- ATM image deposit technology allows for a flexible ATM balancing process, which can be done centrally or in a distributed manner, whatever best suits the organization's staffing resources.
- For banks that accept deposits at remote ATMs, service costs can be reduced by eliminating daily deposited items pick-ups and only picking up when cash servicing is conducted.

2. **Are the bank's ATMs effectively secured and managed?** Security can be improved through new anti-skimming technology, enhanced digital video equipment and better site lighting. Manageability is enhanced through remote management and distribution software.
3. **Do the bank's ATMs need a facelift?** If it's time to replace an ATM, it's the perfect time to upgrade the branding. One of the significant benefits of having an ATM, especially an offsite ATM, is getting the bank's brand out there. There are countless ways to physically brand ATMs through standard signage, surrounds, toppers, wraps and awnings.
4. **Is the bank taking full advantage of its ATM screens' real estate and providing a consistent customer experience?** Implementing advanced marketing and relationship features/capabilities can improve the bank's image with customers and provide important cross-sell opportunities. Providing customers the ability to set preferences that follow them across the ATM network is a good step forward. Even better would be providing integration across the entire customer relationship by giving customers the option to have ATM receipts e-mailed to the address they've verified in online banking!
5. **Does the institution really need an ATM at this location?** This is a key question to ask. A little analysis work could yield some significant savings. In my experience there are many under-utilized ATMs out there costing financial institutions thousands of dollars a year in depreciation, communication and servicing costs. As a starting point, off-premise, cash-dispensing ATMs are a particularly good candidate for this analysis. A thorough evaluation will include tracking of the following data:
 - ATM transaction volumes mix (on-us and foreign);
 - ATM income (surcharge fees and interchange); and
 - ATM expenses (depreciation, service, support, maintenance, leased space, revenue sharing and connectivity).

It's pretty basic from here; does the surcharge fee and interchange cover the costs associated with operating this ATM? If the answer is "no," then there are a few other questions to ask about the location in question:

- Is there something that can be done to make this a profitable location?
- What is the marketing value of having an ATM here and do I need to improve the visibility?
- Is there a commercial relationship tied to this location and how important is this?
- What are the contractual terms tied to this location?
- Will there be significant costs in removing the ATM?
- Can the ATM be redeployed at a profitable alternative location?

Plot a Course

First and foremost, banks want to make sure they're getting their ADA compliance houses in order. Along this course, key considerations will be maximizing the value of the ATM channel and improving customer experience across the entire delivery channel. A little extra time spent plotting this course will result in a Best Practice ATM Fleet Strategy!

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When it comes to Mobile Payments...

The one who enrolls is the one who controls



Richard K. Crone



Heidi A. Liebenguth, Crone Consulting LLC

2011 has been the year of mobile wallet announcements. Isis (a consortium of wireless operators AT&T, Verizon and T-Mobile), Visa, Google, and PayPal are the biggest names. Google has made the most headway in launching its own NFC-enabled smart phone loaded with its own prepaid “card” and Citibank’s Mastercard, usable at a smattering of PayPass-enabled partner retailers.

A number of these players have been seeding the market, providing free NFC terminals to participating retailers. Some say they want no part in interchange and payment processing revenues. They offer an easy path, and they may lend a certain glamour by association. But banks, as well as their consumer and commercial depositors they serve, need to remember there is no such thing as a free lunch.

Providing payment capability is arguably one of the most profitable activities of a financial institution. Payment is the culmination of the shopping experience for a retailer’s customer. Really, making a payment by definition is what turns prospects into customers. Do banks and retailers, a bank’s own commercial depositors, really want to hand over payments to a third party? What is at stake here?

When payments happen within a third party mobile app, or “mobile wallet,” that third party becomes the trusted transmitter of the customer’s money. More than that, that third party has first knowledge of the customer’s transaction information: who was the seller, at what location, what was the amount of the purchase, what payment instrument was used, and more. The aggregation of that data, for a single customer and

also across a large number of customers, provides purchase behavior and prediction insight that has previously been impossible to achieve. Yes, the customer must opt in to the collection of this data, but given the success of other apps that track behavior and the willingness of people to share these kinds of details through social media, the opt-in requirement may not be such a high hurdle.

Imagine the kinds of advertising rates these mobile wallet providers can achieve, knowing where the consumer is, what they're buying, how much they are spending, how often they shop at this location, etc. Collectively these details are referred to in the consumer marketing world as "big data." The incentive is enormous for them to sell advertising to competitors, placed at the most critical moments in the shopping and buying decision-making process. Anyone who has used an online search engine has seen this sophisticated cross-selling at work...and it is not limited to search, it appears even deep within a company's website, countering the promotion of its own products. Access to "big data" elevates the value of preference driven target marketing.

No wonder Michael A. Cook, Vice President & Assistant Treasurer of Wal-Mart Stores, Inc., speaking on a panel at the recent ATM, Debit & Prepaid Forum in Las Vegas, asked the question, "If my customer is using my shopping app to locate my stores, using it to check in to receive offers at the store, using it to navigate the store and find products and reviews, why would I want them to close my app and open up someone else's app for payment?"

Why would banks feel any differently about their own mobile banking apps? Traditionally, banks have been the keepers of their customers' financial services. The growth in the use of debit has increased the value, and customers' dependence on the mobile banking app as a way to track account balances. If a customer is using their mobile banking app prior to a spending decision to check their balance, why would the bank want them to close their app and open a 3rd party intermediary's app for payment? If banks and/or retailers do not preserve their own mobile app experience throughout the entire sales cycle they will miss the most important part of the "big data" sequence; namely the customer interactions before, during and after purchase.

For the retailer, the mobile app can become its most intimate interaction vehicle with its most valued customers. Customers who are willing to download a retailer's app plan to shop there repeatedly. They want to know about new products and new offers, they want to earn loyalty points, and they want to share their own preferences and

values. They have a relationship with that retailer, and look to that retailer's app as a key means of interaction and communication. For the retailer, enrolling these customers through a mobile app makes them known and contactable in a new and vital way. They can now know just what their most loyal customers are looking for, not just buying, and can shape their inventory and loyalty programs to be more effective and compelling. The mobile app can take the impact of a retailer's loyalty program or private label credit, prepaid or gift cards to a new, more powerful level. The insights and data gained through this relationship also put the retailer in a stronger bargaining position relative to the vendors who stock their shelves, and who also want access to this buying preference information.

For banks, the stakes are equally high. Adoption of mobile banking is accelerating, and total interactions with mobile banking are expected to surpass wired online banking in a few short years. Customers who use mobile banking to track their account balances, pay bills, transfer funds, locate branches and ATMs, and even deposit checks with new mobile remote deposit capture capability, are far less likely to switch financial institutions. Conversely, banks that don't offer this functionality can expect to see higher attrition.

A key component of any financial service relationship is payment. When you tally the number of interactions a customer has with their money, payment is the most frequent touchpoint, a key element in reinforcing the financial institution's brand, providing value to the customer and profitability to the financial institution. It makes sense that if a bank is to support mobile payments, it should enable them first from within its own mobile banking app. There is a natural flow to a customer checking their account balance before making a purchase, and actually making the payment. Again, why would a financial institution want a customer to close its own app, and open a third party's app for payment?

In short, the choices before both retailers and financial institutions are to aggregate, or be aggregated. Some will choose to aggregate their customer's payment instruments and preferences inside their own mobile shopping or banking app. Others will choose to be aggregated, to fight for space and relevancy inside a powerful third party's mobile app. There will be room for both approaches, and many will choose to do both. But banks and retailers should consider the strategic implications and outcomes of their choice.

Richard K. Crone and Heidi A. Liebenguth are partners with Crone Consulting, LLC, an advisory firm specializing in mobile payments. Crone Consulting LLC has helped define the mobile payments strategy for leading financial institutions, large merchants and specialty retailers, recurring billers, core processors, payment networks, consortiums and investors. Located in San Carlos, California, Crone Consulting LLC has done an exhaustive review of more than 100+ companies both domestic and abroad, and detailed due diligence many of the largest investments, mergers and acquisitions in the mobile commerce space.

Cloudy Days Are Here



By Mike Scheuerman, senior consultant at CCG Catalyst

Over the last few years there have been a few coalescing trends that will make this the year of the cloud. One trend is demographic. There is a new generation of business management that is very comfortable with technology since they have never known a world that didn't have personal computers and the Internet. The members of this group view the technology that surrounds us as a given. Like electricity, they don't notice that it's there until it's not and even then they expect it will be back quickly. A prime example was the outage that Blackberry suffered earlier this year. There were a lot of people who were shocked because they didn't really know where their email came from, it just showed up. The response to the outage were the howls of the addicts who didn't get their constantly connected fix for a few hours, but they went back to normal as soon as the email started flowing again. These nascent business managers use and trust the utility that the Internet provides. They also assume that it will always be there when they need it.

A second trend is the rise of the massive data center with thousands of CPUs and petabytes of data storage. These data centers are driving the cost of computing to a new low. This commoditization of basic information processing capability is driving the purveyors of software application systems to forgo building and maintaining data centers. It is easier and cheaper to let someone else deal with the vagaries of demand and capacity. The massive data center is becoming the computing utility company.

Building on the second trend is a third trend that is giving rise to services that provide business process functions through the Internet. This is generally known as cloud computing or Software as a Service (SaaS). Until recently as two years ago the services were a bit sparse and didn't provide all the pieces that you need to run a business. However, the breadth of services available today is well on its way to becoming fully business hardened. If you have a fairly simple business you can get

and/or assemble a complete set of business processes. The cost of these services is typically lower than the traditional method of buying, installing and maintaining a set of servers, networks and applications software. Even today with less functionality than traditional applications, these service providers are garnering customers who don't need, want or can't afford a full system. This makes cloud-computing look like a classic disruptive technology.

So where are these trends leading? The subtle, more radical change will be in the way businesses develop and deploy business processes. The new business owner/manager wants to conserve cash but still needs to have robust scalable business process to run the business. These managers recognize that generic business processes add no significant business value. Given that, they will cast about for a solution that provides them with the necessary functionality at the least cost. They will likely find that solution in the cloud.

I believe that cloud computing is becoming the default way for businesses to implement and maintain the common business processes. Business managers are taking a critical look at what they are spending on 'standard' business processes. They are looking at what it costs to acquire and maintain the software packages that automate the day-to-day busy work of the business. They are looking at not only the out of pocket costs but also the opportunity costs associated with lost focus on business strategy and goals. This rethinking of how to value the generic business process is leading to a different paradigm of business operations. In this new world, the basic business processes will be purchased on an as needed basis. Since there are very few software applications, if any, that provide competitive advantage, the application of the technology in unique ways that support the business strategy will be the path to competitive advantage. Just as electricity is used to drive tools that manufacture unique and desired products, the information utility will provide the power for businesses to provide the unique services and products that their founders envision.

But wait you say – what about data integrity? Control? Ownership? eDiscovery? Availability? Depending on the public Internet to run your business? All of these supposed roadblocks don't change the fundamental business case for moving toward a business model that doesn't include an in-house IT infrastructure.





Let's take a close look at these objections. The vast majority of businesses don't have a decent backup plan nor do they have business continuity plan in case of

disaster, so the data integrity issue is a red herring. The integrity of the data is actually better when it sits in a professionally managed data center. If the business owner thinks he has control of his systems, again, he is sadly mistaken. The IT people control the systems, and the software manufacturers control how systems work. So what control do you lose by letting a professional worry about the details of keeping a system running?

In the event that eDiscovery is required, the companies that law firms use to do that kind of work are all very familiar with a wide variety of systems, including Internet-based systems. In many cases, they can use the Internet to gather data that they've been granted access to and save the cost of a trip to your office. As to the availability of systems that are Internet based, most businesses have access to broadband communication services. Those services are generally as reliable as the electric utility company. So if you lose power you will probably lose your communications service. However, if you are using the Internet, you may still be able to use a wireless link on a laptop to access your data because the data center where your data is stored has power backup systems.

Depending on the public, Internet is no more dangerous than relying on the phone company or the gas company to provide needed utility services and your business relies on those entities every day. Are these objections based on reality or the perception that using the cloud services is so new that no one really understands the risks? The latter is more likely the case. New, disruptive technology has always had detractors that can't see the value until it's too late and their competitors have passed them by.

What is Cloud Computing?

Cloud housing and accessibility		
Public  <ul style="list-style-type: none"> Minimal up-front investment Pay-as-you-go Risky for secure data Ease-of-use challenges 	Private  <ul style="list-style-type: none"> Behind corporate firewall Highly available/flexible Requires infrastructure and ongoing maintenance 	Hybrid/Federated  <ul style="list-style-type: none"> Future model with sharing between private/public Immature but promising
Computing model	Examples/Enablers	
Software as a Service (SaaS) <ul style="list-style-type: none"> Typically offered in a public model Focused on end-user applications 		
Platform as a Service (PaaS) <ul style="list-style-type: none"> Application development platforms Offered as a public and private clouds 		
Infrastructure as a Service (IaaS) <ul style="list-style-type: none"> Full range of IT service delivery 		

Source: Gartner – April 2010

There are many different kinds of cloud computing – let’s run through the definitions.

We’ll look at it from two dimensions. The first based on who manages the resources that deliver the service:

- **Public cloud** or *external cloud*.....describes cloud computing in the traditional mainstream sense, whereby resources are dynamically provisioned on a self-service basis over the Internet, from an off-site third-party provider who runs the complete environment and bills on a [utility computing](#) basis. The underlying compute resources are shared by all users.
- In a **private cloud**, services are provided only to specific users, such as a cloud within a company. Services are still requested over the internet or using internet technology within a corporate network, and the underlying resources are shared, but only within a company or well defined entity. Private cloud can mitigate some of governance, availability and control issues worrying folks about the cloud. And at the same time, can deliver a similar level of economic benefit as the public cloud option.

- A **hybrid cloud** environment consists of services sourced from both internal and external providers. HP believes this will be typical for most enterprises in the future.

Now let's look at cloud computing from the perspective of the service that's delivered:

- Cloud application services or "[Software as a Service \(SaaS\)](#)" deliver software as a service over the [Internet](#), eliminating the need to install and run the application on the customer's own computers and simplifying maintenance and support. SaaS offers network-based access to, and management of, commercially available (i.e., not custom) software. Salesforce.com is a good example of SaaS.
- Cloud platform services or "[Platform as a Service \(PaaS\)](#)" deliver a [computing platform](#) and/or [solution stack](#) as a service. It facilitates deployment of applications without the cost and complexity of buying and managing the underlying hardware and software layers. Google App Engine is a good example of PaaS. It offers a full stack for people who want to develop and host applications on Google's infrastructure.
- Cloud infrastructure services or "[Infrastructure as a Service \(IaaS\)](#)" delivers [computer infrastructure](#), typically a [platform virtualization](#) environment as a service. Rather than purchasing servers, software, data center space or network equipment, clients instead buy those resources as a fully outsourced service. The service is typically billed on a [utility computing](#) basis and amount of resources consumed (and therefore the cost) will typically reflect the level of activity. Amazon EC2 is a good example of infrastructure as a service – it delivers a compute environment with an operating system.

Mike Scheuerman is senior consultant of Phoenix-based CCG Catalyst, a bank consulting firm providing strategic guidance for financial institutions. CCG Catalyst specializes in conducting strategic planning and implementing recommended solutions that boost profitability and enhance service levels, particularly when dealing with the adoption of technology, new business practices and growing market share. For more information, visit the company's website at www.ccg-catalyst.com.

2012: Mobile Banking Reality Check Triple Play is Dead...



By Robb Gaynor, Malauzai Software, Inc.

Imagine, you're one of many banks and credit unions that have yet to roll out mobile banking. After researching options, you choose the highly celebrated and well marketed triple play option, which offers mobile banking via SMS text, web-based and apps. You launch with high hopes for the future, only to find that sadly the future has passed you by. Triple play is a strategy based on first generation technology, so it worked well five years ago, but today, customers and members expect a lot more from mobile.

The Problem With Triple Play

At the risk of being blunt; triple-play is dead. It was a great story for technologists but for customers, the experience was horrible. Bank executives choose triple play because it provides access to mobile banking on all phones. It's true, banks shouldn't alienate customers who want mobile banking but don't own a smartphone. But banks shouldn't offer mobile banking simply for the sake of saying that they have it, either.

Financial institutions that offer triple play cover all access points but fail to measure up to customer expectations. Customers expect the same mobile experience from banks that they get from other brands, such as FaceBook and American Express. "Customers aren't comparing their mobile banking app to other bank apps," said Tom Shen CEO and co-founder of Malauzai Software, Inc. "They're comparing their mobile app to other lifestyle apps."

SMS-text and web-based solutions deliver poor experience on low-end phones. Consumers choose smartphones because they deliver the latest in mobile technology. According to Javelin Research, smartphones have crossed the tipping point. Today, more than 51 percent of mobile phone owners own a smartphone.

The Time Is Now

At a time when bank revenue is under pressure, there is an opportunity for financial institutions to move to a customer-focused mobile strategy. Bank executives who drive revenue and growth within banks and credit unions provide mobile banking that customers expect and demand.

Bank revenues risk erosion from several external forces, including new fee regulations, changes in customer behavior and falling overdraft fees. The potential loss in revenue provides uncertainty for community banks and credit unions that can't absorb new cost structures. Financial institutions need to replace lost revenue, but is raising fees the best way?

Adding basic mobile banking services just isn't enough. The equation is simple. Better mobile banking leads to higher customer satisfaction and more revenue for banks.



Smart Apps: Smart Choice

A SmartApp is an app that runs on a mobile device, is easy to use and can be tailored for separate customer segments. Financial institutions increase revenue by offering SmartApps designed to meet customer needs. SmartApps increase the use of the self-service channel, improve cross-sell opportunities and deliver value to the customer.

Mobile banking isn't the internet on a smartphone. It's a separate and dynamic channel. Change within the mobile landscape is accelerating. Financial institutions that are slow to adopt new mobile technology will be left behind. If you are evaluating "triple-play", you're looking in the rear-view mirror.

Bigger banks and financial service firms like Citi and E*TRADE get it. They invested in new mobile technology to ensure future value. Financial institutions that invest today will capture new customers looking for mobile solutions. Still, like brick-and-mortar

bookstores, there will be those that wait too long. Think seriously about questioning the status-quo.

Social & Mobile Banking Toolkit...

There are three areas that banks and credit unions can utilize to create more revenue now: cool social banking SmartApps, Mobile Marketing, and SmartApp Management Systems (AMS).

Cool Social Banking SmartApps: social banking represents the intersection of social media and banking. Banks publish social media content within the SmartApp. Consumers share and refer content with existing friend networks on Facebook, Twitter, and email.

Financial institutions that have first-generation mobile cannot offer services that consumers expect and demand, such as remote deposit capture, location-based branch and ATM finders and person-to-person transfers. These are services customers associate with mobile banking.

Mobile Marketing: Banks must have the ability to send messages and marketing content through the mobile channel. Whether trying to convert more customers to e-statements or selling more CD-renewals, the mobile channel represents untapped opportunity for turning customer interactions into revenue.

SmartApp Management is an imperative. Providing a great mobile experience requires financial institutions to provide separate apps that fit different customers. Inevitably, smartapps will grow and will need to be managed. Rather than fear multiple SmartApps, financial institutions can provide specific SmartApps for each platform and customer segment. Application Management Systems (AMS) simplify the process of publishing and managing SmartApps. AMS centralizes management of features and content, minimizing the need for direct store updates.

Increasingly, people rely on technology, and demand for bank branches decreases. One thing is certain: Mobile banking is here to stay. It is not a matter of when banks and credit unions offer mobile banking, but whether that mobile banking strategy increases profit or just becomes another expense. Financial institutions that have triple play will continue to experience low adoption. Choosing triple play is like choosing a video cassette player in a Blu-ray world, just because it works doesn't make it a good idea.

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Seven Steps to Customer Mobility



Scott Abeel, Q2eBanking

There is unarguably significant buzz surrounding the topic of mobile banking, and as banks consider implementing mobile services there are many factors to consider. Today, simply offering mobile banking is not enough – banks must have a strategy in place for the implementation and progression of this new channel. Creating true customer mobility requires a solid understanding of how mobile services complement all other channels. Mobile cannot be thought of solely as an offering for Gen Y customers or as a smartphone app. Instead, it must be viewed as a component of a comprehensive menu of services that make an institution invaluable to its customers. Here are seven key steps to take into account to successfully launch a mobile solution and give customers the ability to bank on their schedule.

1. Adopt a CYO (Chief Youth Officer) – A Mobile Visionary

Every institution should identify a chief youth officer (CYO). Often, but not exclusively, one of the bank's younger managers, this individual is a mobile visionary who understands the positive impact of mobile banking. These young, energetic managers likely already drive a bank's social media presence through Facebook and Twitter. In addition to recognizing the need for modern service offerings, a CYO can effectively translate new trends and communicate the value, as well as the urgency, of a mobile channel to upper management.

2. Develop a Mobile Web Presence

Developing a mobile website is a bank's first step when launching a mobile channel. The site should initially include branch and ATM locations, rates, contact information and other public facing information. In the mobile banking world there are three widely recognized modalities from which to choose: WAP (Wireless Application Protocol) or mobile browser, downloadable application and SMS (Short Message Service) /text banking. The WAP browser is wise due to the ubiquitous nature of mobile browsers

and mobile web access across all types of devices. SMS/text banking also accommodates any mobile device that receives text messages, meeting the needs of consumers without smartphones. Banks would be wise to consider platforms offering a combination of these modules.

3. Mobile Integration Strategy: A new delivery channel, not a new challenge

To successfully integrate mobile banking, executives must recognize mobile as a separate, simplified avenue of online banking. Banks can re-tool their online banking applications to create a single electronic banking applications that supports two user interfaces: one for online and one for mobile. This approach maximizes operational efficiencies and customer benefits, while avoiding any duplicated efforts.

From the customer perspective, a single platform for electronic banking ensures data consistency between channels. If a mobile site differs radically from the online experience, customers will likely become wary and adoption will certainly be delayed. Furthermore, users want a simple screen that quickly loads over their mobile devices.

4. Mobile Security – Is perception reality?

Mobile banking security relies on the same security principles and strong authentication that protects an online banking system. As such, it must be addressed in three main areas: mobile enrollment, authentication and mobile entitlements.

- Mobile Enrollment – Linking enrollment to online banking is much simpler than enrolling through the device itself, guaranteed.
- Strong Authentication – Eliminate “challenge” questions by setting up an online code for users to enter a password, like a PIN that links users between online access and mobile access.
- Mobile Entitlements – Provide customers the same level of access that they have online.

Sending online activity alerts is already an absolute priority for most financial institutions, and alerts must be as important, if not more important, for the mobile channel. The phone is an ideal method for delivering important notifications to customers through secure messaging, text messaging and e-mail alerts. Phone alerts are arguably the most important feature of mobile banking, and must play a significant role in any mobile security plan.

5. Consider your Customer's Mobile Expectations

Successful adoption of mobile banking requires a bank to meet customer expectations. There is no sense in developing a cool technology that is unwanted. As a rule of thumb, anticipate that consumers want to do everything through a mobile site that they can do online without any added hassle.

For example, customers should not have to key in fields of data using their mobile device, which often causes entry mistakes. Instead users should select from shared online-entered data. All features should work the same way they do online, yet make "mobile sense" to ensure any on-the-go-banking need is met.

6. Introduce Mobile Business Banking

Integrating business features into the mobile environment is the next phase for banks, a vital step towards competing with megabanks. Community-focused institutions should take advantage of mobile banking solutions that are available commercially and support a wide range of ACH payments, wire transfers, tax payments, dual authorization and other business-specific functionality.

Business customers greatly benefit from mobile services that are capable of drafting transactions online, approving them via a mobile phone and reviewing/confirming the transaction via any electronic banking channel. The ability to remotely scan and deposit paper checks is also a valued convenience. Mobile banking proves indispensable to business customers by enabling professionals to manage company finances from any location.

7. Create a Mobile Planning Committee

Finally, a bank should establish tactics for the future of mobile banking and plan development meetings around its mobile strategy. Establish a leader, or a committee to focus on mobility, follow trends and discover new value propositions in today's increasingly mobile society.

Mobile banking will likely change drastically within 3-5 years, as new devices continually emerge and technology constantly updates. Despite changes to come, mobile solutions must always complement other channels and support new technology and services. The way an institution addresses mobile now and into the future will be the key to success in this evolving mobile marketplace.

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