Digital Account Opening
“Bankers who are intent on preparing for the day when digital channels dominate account opening should rethink their timing. That day might have already arrived.”

-Javelin Strategy and Research
Where there was once a delineation between banking processes done from the comfort of a consumer’s home with the convenience of a smartphone, or in a branch office, the use of digital functionality has finally become universal.

According to research conducted by Javelin Strategy and Research, more Americans than ever are applying for credit cards and a variety of loan and investment accounts through digital channels – with the volume of applications on smartphones and tablets jumping more than 60% for auto loans, mortgages, and credit cards.

With 70% of likely checking account applicants saying they would prefer to submit a digital application in 2015, it is clear that using digital functionality to improve the online, mobile and even the branch account opening process will eventually improve the onboarding and engagement process for new customers.

Unfortunately, there is still the challenge of abandoned new account opening processes because of lengthy applications, unclear directions, the lack of mobile-first design and the perception that branches have the edge when it comes to protecting personal data and getting advice.

Surprisingly, most banks have not responded to this revolution in digital functionality. From hard-to-read screens to requiring signature cards and proof of identity at a branch, the process must improve. Even more surprising, while most banks offer online account opening, less than 20% offer a truly mobile new account opening process.

This is an updated report from Online Banking Report Issue 227 where we will focus on the digital account opening (DAO) experience for checking accounts, and the landscape of solutions and workflows that comprise the end-to-end account opening process.

We focus primarily on account applications from new checking customers and include both self-service solutions as well as branch-assisted processes.

It is hoped that this report will help banks and credit unions move forward with digital improvements to the account opening process, removing friction, simplifying processes and providing a seamless digital experience.

It is also hoped that significantly more organizations will follow the lead of Moven, Simple, GoBank, BankMobile and others in offering a mobile-only account opening option.

Jim Marous
Publisher, Digital Banking Report
KEY RESEARCH QUESTIONS:

- What are the trends in digital and mobile banking?
- What kind of growth do we expect with digital account opening?
- What are the components of a good digital account opening solution?
- What advancements do we expect in digital account opening?
- Who are the key providers of supporting technology?
- What benefits can be expected from self-service and branch-assisted digital account opening?

KEY TAKEAWAYS:

- Digital account opening abandonment remains unacceptably high, caused by lengthy forms, unclear instructions, unreasonable requirements, and non-digital processes.

- While you can postpone designing specific mobile solutions, digital account opening (DAO) will soon become an expected component of the mobile user experience.

- By 2020, the vast majority of accounts will be opened outside the branch via digital channels with mobile being a significant component of this volume.

- Beyond the functionality required to open an account digitally, the importance of being able to digitally qualify and verify the identity of the account opener has come center stage.

- Digital and mobile functionality is being introduced to the physical branch environment, improving the entire new account opening process and allowing for a better new customer onboarding process.
TABLE OF CONTENTS

DIGITAL ACCOUNT OPENING BY THE NUMBERS 9
DIGITAL ACCOUNT OPENING TRENDS 14
DIGITAL ACCOUNT OPENING SOLUTION PROVIDERS 49
DESIGNING FOR AN IMPROVED USER EXPERIENCE 25
BRANCH VS. DIGITAL ACCOUNT OPENING 58
DIGITAL ACCOUNT OPENING DEFINED 7
DIGITAL ACCOUNT OPENING BUSINESS CASE 44
ADDENDUM: BANKMOBILE ACCOUNT OPENING 61
Although forecasts of digital disruption in banking may take longer to materialize than some expect, digital transformation is at an inflection point. Digital capabilities and functionality are impacting every aspect of the banking industry. While banking executives will need to prioritize digital investments, there may be no better place to start than with the account opening process.

Only 20% of the top U.S. banks currently offer a new account opening process built for a mobile device.

The first report published by the Digital Banking Report (then known as the Online Banking Report) covering the ‘online account opening’ process was in 2009 https://www.onlinebankingreport.com/subscriptions/issue.html?iid=192. At that time, online account opening was just moving into the early mass market and was more of a “nice to have” feature.

By 2014, online account opening was no longer a luxury, but a differentiator when consumers were shopping for a new bank or credit union. The process had moved from being only provided online to being available on mobile devices as well. While only 20% of the top banks in the U.S. currently offer a new account opening process built for mobile, this transition will become table stakes as more consumers use their mobile devices to research, shop and buy products and services.

As we move in 2015, the benefits of digital account opening are beginning to reach the branch network. Mobile functionality that consumers could receive when they open new accounts with their mobile device is starting to be used to improve the in-branch account opening process. This includes using the camera phone OCR for pre-filling new account forms quickly and accurately, as well as being able to verify a consumer’s identity.

With recent research indicating that close to half of all checking accounts are being opened through digital channels, and as many as 70% of consumers indicating that they will be using digital channels to open new accounts in 2015, this trend can not be ignored.

Long term, the use of mobile devices as part of the self-service and branch-assisted account opening process will be even more important than opening accounts with an online desktop. As one banker said, “Designing for mobile provides a better experience for everyone.”
Much of what is required for mobile account opening is the same as for online, but with the added complexity of varying device sizes, responsive design, the need for simplified staging and mobile identification verification. The exceptional capabilities of mobile devices provide more opportunity to improve the experience.

Core Features
Digital account opening is defined as a collection of core features:

- Capture applicant data
- Qualify applicants
- Verify applicant identity (usually through third-party data sources)
- Real-time account funding
- Automatically create accounts in the core banking system

Ancillary Features
In addition to the five core features, a number of additional features are offered by enough digital account opening providers to be considered the new standard across the industry. These include:

- Contextual prequalification for, and cross-sell of, additional products
- Online banking single sign-on (bypassing some data entry and identity verification steps)
- Save and resume functionality (supporting multichannel processes)
- Electronic signatures (replacing signature cards)
- Ability to upload photos of supporting identification documents

As we look at the future of DAO, we will see processes that take advantage of the mobile device capabilities both from the customer as well as the branch perspective, making online account opening distinct from its mobile counterpart.
Digital Account Opening by the Numbers

CHART 1: CONSUMERS WANT TO RELY ON DIGITAL CHANNELS IN 2015

Nearly half of checking account applicants submitted applications in online or mobile channels 2014

70% of consumers who plan to apply for checking in 2015 would prefer to do so in digital channels 2015

Source: Javelin © August 2015 Digital Banking Report
Digital Account Opening by the Numbers

CHART 2: REASONS WHY CONSUMERS ABANDON ONLINE CHECKING ACCOUNT APPLICATIONS

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant decided they didn't need the account after all</td>
<td>47%</td>
</tr>
<tr>
<td>The process was too complicated</td>
<td>12%</td>
</tr>
<tr>
<td>Applicant couldn't satisfy minimum deposit requirement</td>
<td>10%</td>
</tr>
<tr>
<td>The process was too long</td>
<td>9%</td>
</tr>
<tr>
<td>The institution wanted documents the applicant did not have</td>
<td>6%</td>
</tr>
<tr>
<td>Applicant couldn't get answers to their questions</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Javelin © August 2015 Digital Banking Report

CHART 3: TOTAL DIGITAL BANK INTERACTIONS, COMPUTER VS. MOBILE, 2014

<table>
<thead>
<tr>
<th>Country</th>
<th>Computer</th>
<th>Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.K.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Bain & Company © August 2015 Digital Banking Report
Novantas found that consumers preferred to use the branch to open loan products (55%) and deposit products (45%).

**CHART 4: PREFERRED CHANNEL BY TRANSACTION TYPE**

- **Opening a Credit Card**: 79% Digital, 8% Phone, 9% ATM, 4% No Preference/Other, 4% Branch/In-Person
- **Transactions**: Information - 41%, Opening a Credit Card - 25%, Opening a Deposit Account - 23%, Opening a New Home Equity Loan or LOC - 24%
- **Service Issues**: Information - 3%, Opening a Credit Card - 2%, Opening a Deposit Account - 2%, Opening a New Home Equity Loan or LOC - 6%
- **Opening a Deposit Account**: Information - 13%, Opening a Credit Card - 13%, Opening a Deposit Account - 45%, Opening a New Home Equity Loan or LOC - 55%

Source: Novantas © August 2015 Digital Banking Report
**CHART 5:**
**FI’s PLANNED MOBILE BANKING CAPABILITIES**

Deployed and planned mobile banking capabilities from FIs (N=233)

- **Bill pay:**
  - Already have or will likely have by end of 2015: 86%
  - Not deployed, but probably will: 11%
  - Not deployed, but probably won’t: 3%

- **Checking account applications:**
  - Already have or will likely have by end of 2015: 55%
  - Not deployed, but probably will: 20%
  - Not deployed, but probably won’t: 25%

- **Mortgage applications:**
  - Already have or will likely have by end of 2015: 54%
  - Not deployed, but probably will: 23%
  - Not deployed, but probably won’t: 23%

- **Car loan applications:**
  - Already have or will likely have by end of 2015: 53%
  - Not deployed, but probably will: 23%
  - Not deployed, but probably won’t: 24%

- **Budgeting:**
  - Already have or will likely have by end of 2015: 49%
  - Not deployed, but probably will: 30%
  - Not deployed, but probably won’t: 21%

- **Expense categorization:**
  - Already have or will likely have by end of 2015: 48%
  - Not deployed, but probably will: 30%
  - Not deployed, but probably won’t: 22%

Source: Aite Group survey of 233 U.S. based bank and credit union executives, Q1 2014 © August 2015 Digital Banking Report

**CHART 6: PERCEIVED CHANNEL BENEFITS**

Percentage of consumers

- **Most convenient to fit my schedule:**
  - Online: 49%
  - Mobile: 11%
  - In-branch: 40%

- **Quickest application time:**
  - Online: 47%
  - Mobile: 9%
  - In-branch: 44%

- **Best channel for comparison of types of accounts and features:**
  - Online: 45%
  - Mobile: 7%
  - In-branch: 48%

- **Fastest access to new account/funds:**
  - Online: 40%
  - Mobile: 9%
  - In-branch: 51%

- **Fastest approval/rejection notification:**
  - Online: 39%
  - Mobile: 9%
  - In-branch: 52%

- **Most convenient channel for providing additional documentation, if needed:**
  - Online: 36%
  - Mobile: 9%
  - In-branch: 55%

- **Easiest to obtain answers to questions:**
  - Online: 34%
  - Mobile: 6%
  - In-branch: 60%

- **Greatest sense of confidentiality:**
  - Online: 27%
  - Mobile: 7%
  - In-branch: 66%

- **Safest option for protection of personal data:**
  - Online: 25%
  - Mobile: 6%
  - In-branch: 69%

Source: Javelin Strategy & Research © August 2015 Digital Banking Report
CHART 7: CHANNEL USED TO OPEN ACCOUNT

<table>
<thead>
<tr>
<th>Account Type</th>
<th>Digital</th>
<th>Branch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checking</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>Savings</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td>Auto Loan</td>
<td>58%</td>
<td>42%</td>
</tr>
<tr>
<td>CD</td>
<td>59%</td>
<td>41%</td>
</tr>
<tr>
<td>Mortgage</td>
<td>66%</td>
<td>34%</td>
</tr>
<tr>
<td>Retirement</td>
<td>69%</td>
<td>31%</td>
</tr>
<tr>
<td>Brokerage</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>Educational Account</td>
<td>72%</td>
<td>28%</td>
</tr>
<tr>
<td>Credit Card</td>
<td>77%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Source: Javelin Strategy & Research © August 2015 Digital Banking Report

CHART 8: OUTCOME OF ONLINE CHECKING ACCOUNT APPLICATIONS

- 75% Able to open and fund account in one session
- 8% Abandoned the application process
- 3% Application rejected
- 12% Opened account but not able to fund it immediately
- 2% Never heard back from bank

Source: Javelin Strategy & Research © August 2015 Digital Banking Report
According to Javelin Strategy and Research, more than 3 in 4 credit card applications were opened using digital channels in 2014. In addition, close to half of all checking accounts were opened online, on a smartphone or using a tablet in 2014. And this trend is expected to continue, with an increasing movement from online to mobile account opening.

Initiating relationships with digital channels is already commonplace with major social networks, ecommerce players & subscription-based services. Financial institutions are adapting to this reality and by the end of 2015 they will begin to catch up with their non-financial peers.

The majority of top banks and credit unions offer online account opening, yet mobile-first DAO designs are not commonplace. In fact, while the number of new accounts opened by a smartphone or tablet jumped by more than 50% in 2014, the percentage of new checking accounts opened with a mobile device was still under 20%. This is a result of the fact that less than 20% of top FIs even support mobile account opening.

The challenge is that financial executives need to determine the priority of supporting mobile account opening in an environment where banking lags in so many areas of digital transformation. This prioritization process is underscored by the reality that there is more mobile development activity seen in the loan and credit card product lines than in the less profitable deposit products.
Digital Account Opening Trends

Moving forward, financial institutions should follow the lead of the neo-banks such as Moven, Simple, BankMobile, etc. and develop mobile account opening capabilities for foundation products (checking, savings, credit cards, etc.). These products are also more likely to be able to be supported by smartphone applications as opposed to requiring the expanded platform of a tablet device.

The key to moving more customers and (financial institutions) from branch to mobile account opening will be in providing the assurance that personal information is secure when entered and that identification can be verified quickly and easily. It is also important that basic new account opening questions can be answered without leaving the mobile account-opening platform.

Finally, while the convenience of opening a new account using a mobile device can’t be denied, the simplicity of the process needs to rule the day. Until financial institutions can eliminate/simplify legacy steps in the process, the full potential of account opening with mobile devices won’t be realized.

“Imaging features are the most positively reviewed features by customers. Data entry is painful. Every phone has a camera. New research shows that customers like convenience and dislike apps that don’t use features their phones have.”

- Niti Badarinath, Senior VP

CHART 9: EXPECTATIONS OF THE 'MOBIVORE'

<table>
<thead>
<tr>
<th>Desires</th>
<th>Indifferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enrollment via mobile</td>
<td>• Spending time in branches</td>
</tr>
<tr>
<td>• Needs-based authentication</td>
<td>• Paper statements or forms</td>
</tr>
<tr>
<td>• Digital access to bank staff, including live chat</td>
<td>• In-person interactions with bank staff</td>
</tr>
<tr>
<td>• One-click shopping</td>
<td>• Being forced to another channel</td>
</tr>
</tbody>
</table>

Source: Fiserv, Inc. © August 2015 Digital Banking Report
Digital Account Opening Trends

The following are some of the trends seen in mobile account opening.

**Cameras**

Mobile remote deposit capture (RDC) has trained consumers to use smartphone cameras for banking. This same process can be used to capture documentation, such as a driver’s license. Once captured, this information can be used for multiple purposes:

- **Identity authentication** – The information and picture on the credentials can be compared to government databases.
- **Pre-populate fields** – Using optical character recognition, the data can be used to pre-fill fields in an account application, speeding up the process and reducing data-entry errors.
- **Signature specimen** – The signature can be captured and used as a signature specimen.
- **Documentation support** – With the application for loans, product barcodes, vehicle identification numbers (VIN), and even pictures of products being purchased can be captured.

The interest in using the camera OCR as part of mobile account opening underscores that, while branches continue to be the primary place where accounts are opened currently, mobile devices are the next major consumer acquisition tool. This is particularly true for millennials who have grown up on the Internet and won’t tolerate requests to mail in documents or wait for approval when seeking financial products online.

**Touchscreens**

Banks and credit unions can use the touchscreen functionality of a mobile device to capture signatures, enter PINs, enable the consumer to access direct links to product descriptions, process FAQs and even provide chat functions.

**Device Authentication**

Mobile devices have unique identifiers that can improve the identity-verification (IDV) process. For example, the phone number can be checked against various databases. Several banks are piloting an offering from Early Warning Systems and Payfone that will provide access to an even more secure mobile-authentication process based on SIM cards.

Finally, the biometric functionality of new smartphones and tablets can assist in the verification of consumer identity. This capability is expanding quickly as more consumers are upgrading devices and financial institutions are testing new verification processes.
Digital Account Opening Trends

**Geo-Location**

Financial institutions can use geo-location data to help prevent new account fraud. Since mobile devices are almost always close to its owner, GPS functionality can serve as another method to spot potential fraud scenarios that transaction data alone might overlook.

**In-Branch Mobile Capture**

With mobile ID capture, banks and credit unions can eliminate a source of transaction friction by taking manual data entry out of the equation. The easier banks make it for an employee in the branch to help a customer apply for a car loan or credit card, the more likely they are to sell that product and complete that enrollment process.

An [Aite Group white paper](https://www.aitegroup.com/), commissioned by [Mitek Systems](https://www.miteksystems.com/), looked at the use of the mobile camera for data entry during onboarding and senior analyst, David O’Connell, confirmed that mobile capture used in-branch can help financial institutions maintain their branch network. “Leveraging mobile capture-enabled onboarding processes, by equipping branch employees with tablets or smartphones, may both increase employee productivity and improve the customer experience in-branch,” stated O’Connell. “In addition, it gives banks and credit unions a tool to get the most out of their brick and mortar locations.”

By using the camera on a mobile device to capture data and auto-populate new account forms, employees are free to engage with the customer during the process, rather than being heads-down to transcribe data from one document to another. In beta deployments at several large banks, mobile capture for onboarding has proven to be quite successful.

With mobile capture onboarding, any relatively private space in the branch can be used to process new applications. Branch staff can use tablets to snap a picture of the applicant’s ID to initiate the process, without needing desk space or a computer to fill out application paperwork.
Digital Account Opening Trends

**FI’s Slow to Offer Mobile Account Opening**

Surprisingly, even smartphone pioneer Bank of America, the first bank to have an app for the iPhone (July 2008), does not currently support smartphone account opening.

At Bank of America, the first step in online account opening is to determine the customer’s state of residence, which drives the product menu. After choosing a product, they begin the opening process.

For desktop PC or tablet users, the same screen is presented with identical options. Whether using a tablet or a PC, the visual is appealing and the format is actionable, with a prominent “Open Now” button.

However, for those using a smartphone, the options change. The first option is: “Try the free app.” This is great for customers, but for non-customers, the app is a dead end if they want to open an account.

For example, selecting “Checking” leads to a product description and a button that says, “Call to Open.”
Digital Account Opening Trends

Mobile Account Opening Forecast

In this section, the Digital Banking Report is providing a forecast of mobile and online account openings for the next 5 years based on several industry assumptions. This estimate can vary based on industry and technological changes.

In determining the number of accounts opened through various channels, we start with the number of households in the U.S. (120M) and apply the 1.485 average number of checking accounts per household that was noted by Haberfeld Associates in an ABA Bank Marketing article in 2014 to yield a total number of checking accounts in the U.S. of 178.2 M.

CHART 10: PRODUCT RELATIONSHIPS PER PFI HOUSEHOLDS

<table>
<thead>
<tr>
<th>Product</th>
<th>Ratio</th>
<th>Average Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checking</td>
<td>148.50%</td>
<td>$4,344</td>
</tr>
<tr>
<td>Savings</td>
<td>48.80%</td>
<td>$4,327</td>
</tr>
<tr>
<td>Money Market</td>
<td>3.20%</td>
<td>$56,648</td>
</tr>
<tr>
<td>CD</td>
<td>11.90%</td>
<td>$26,746</td>
</tr>
<tr>
<td>IRA</td>
<td>3.50%</td>
<td>$16,590</td>
</tr>
<tr>
<td>Consumer Loan</td>
<td>4.90%</td>
<td>$9,330</td>
</tr>
<tr>
<td>Line of Credit</td>
<td>2.00%</td>
<td>$4,335</td>
</tr>
<tr>
<td>HELOC</td>
<td>2.90%</td>
<td>$33,890</td>
</tr>
<tr>
<td>Mortgage</td>
<td>3.70%</td>
<td>$108,776</td>
</tr>
<tr>
<td>Business Checking</td>
<td>11.00%</td>
<td>$14,060</td>
</tr>
<tr>
<td>Total Relationships</td>
<td>2.404</td>
<td></td>
</tr>
</tbody>
</table>

This chart shows the ratio of service for each PFI household. Thus, there are an average of 1.485 checking accounts in each PFI household.

Source: Haberfeld Associates © August 2015 Digital Banking Report
Digital Account Opening Trends

If we use the assumption that 8% of checking accounts attrite per year, this would provide an initial benchmark of 14.3M checking accounts in play on an annual basis. To test the logic of this assumption, this number of accounts would result in roughly 160 new checking accounts opened per year by each U.S. banking branch.

By applying the online account opening estimates presented by both Novantas and Javelin Strategy and Research (35% of checking accounts opened online), this would result in 5M accounts opened in 2015 via online channels. With 15% of accounts opened via mobile device, this would yield 2.15M accounts, with 7.15M accounts opened in the branches.

**CHART 11: CHANNEL USED TO OPEN A CHECKING ACCOUNT IN 2014 (By FI Relationship)**

<table>
<thead>
<tr>
<th>Percentage of applicants</th>
<th>Lapsed customers</th>
<th>Existing customers</th>
<th>New customers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>40%</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>23%</td>
<td>16%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>37%</td>
<td>49%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Online  Mobile  In-branch

September 2014, n = varies: 102,441

Source: Javelin Strategy & Research © August 2015 Digital Banking Report
Digital Account Opening Trends

The forecast below is based on our assumptions that financial institutions increase the offering of mobile opening capabilities well beyond the 20% of organizations that offer this capability today.

**CHART 12: MILLIONS OF CHECKING ACCOUNTS OPENED BY CHANNEL FORECAST 2015-2020 (U.S.)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Branches</th>
<th>Online</th>
<th>Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>5.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>2016</td>
<td>5.2</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>2017</td>
<td>5.7</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>2018</td>
<td>6.1</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td>2019</td>
<td>6.5</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>2020</td>
<td>6.7</td>
<td>3.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Source: Digital Banking Report © August 2015 Digital Banking Report


<table>
<thead>
<tr>
<th>Method used to initiate opening</th>
<th>Current</th>
<th>Millions of U.S. Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Total</td>
<td>7M</td>
<td>7.4M</td>
</tr>
<tr>
<td>Online (Desktop)</td>
<td>5M</td>
<td>5.2M</td>
</tr>
<tr>
<td>Mobile</td>
<td>2M</td>
<td>2.2M</td>
</tr>
<tr>
<td>In-person (branch)</td>
<td>7M</td>
<td>6.7M</td>
</tr>
</tbody>
</table>

Source: Digital Banking Report © August 2015 Digital Banking Report

The forecast is based on current account opening trends and does not take into account major changes in ‘switching’ behavior that may occur due to competitive or legislative changes (account number portability).
Digital Account Opening Trends

Forecasting channel use and the number of checking accounts being opened requires a number of assumptions. While we do not expect the number of checking accounts that will be opened to increase significantly overall, this could change if the government follows the lead of the United Kingdom, where account portability allows consumers to move accounts to different institutions without changing their account number.

In addition, we expect online account opening to continue to grow, albeit at a slower growth rate over the next 5 years.

Finally, improving the user experience for mobile devices – with pre-populated fields and leveraging the OCR camera functionality – will be the catalyst for strong growth. This will result in a significantly higher percentage of accounts being opened with mobile devices than today.

In our assumptions, while using digital devices to open the account, accounts opened in the branch using tablets or mobile devices are categorized as ‘branch’ openings for this analysis.

Following are the important assumptions that can impact our forecasts:

**Positive Impacts:**

In this forecast, digital account opening will be positively impacted if the following occur:

- The majority of new accounts opened will continue to be overrepresented by younger consumers, who are both more transient and more likely to embrace digital channels for account opening.

- Tier 1 financial institutions embrace mobile account opening, introducing “designed for mobile” account functionality, and market their capabilities.

- Photo ID capture is embraced by tier 1 organizations with the both auto-fill and authentication capabilities.

- Authentication via mobile devices is offered universally by primary solution providers.

- MAO and OAO becomes an important marketing tool used by banks and credit unions to both attract tech savvy consumers and to expand reach beyond their geographic footprint.
Digital Account Opening Trends

Negative Impacts:

In this forecast, we expect that significantly fewer consumers will open accounts in the branch in 2020. This estimate could be moderated if:

- Financial institutions close branches at a slower rate than estimated.
- Regulators and examiners disallow photo capture of identification cards and require physical presentation of an ID.
- Technologies to support photo capture and database comparison of ID cards are not in place at the majority of banks and credit unions by the end of the forecast period.
- Real or perceived security breaches targeting mobile devices create an atmosphere of distrust.

National and super-regional banks must prepare for huge volumes whenever they introduce new capabilities and must screen carefully for fraudulent activities at scale. Today, we believe many top institutions are delaying introduction of full MAO so they can introduce new authentication capabilities at the same time.

With stronger authentication, banks can increase the proportion of accounts that can be processed straight through without exception processing. For this reason, we expect the next couple years to be the breakout years for MAO.

In 2015, financial institutions will see 2 million checking accounts opened and funded through mobile devices (both smartphones and tablets). By 2020 that number will grow by at least 150% to 5 million accounts representing 34% of total account openings.

During this same 5-year period, branch account openings of checking accounts will drop from 50% of all openings to 20% of openings.

As mentioned, we also will see more institutions using MAO for in-branch as well as person-to-person out of branch account openings. Mobile devices will be deployed in the field for new customer events, at corporations, universities, fairs, and for private banker interactions. Following are some of the most important forecast assumptions.
# Digital Account Opening Trends

## CHART 14: ASSUMPTIONS FOR DIGITAL ACCOUNT OPENING FORECAST

<table>
<thead>
<tr>
<th>Forecast Assumptions</th>
<th>Confidence Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household numbers based on census data and their projections of U.S. population growth.</td>
<td>High</td>
</tr>
<tr>
<td>No changes to percentages of banked vs. unbanked households.</td>
<td>High</td>
</tr>
<tr>
<td>A very slight increase in new checking accounts opened. About 1/3 of the increase is from new household formation and the rest is from a slight increase in churn. In total, about 8% of accounts attriting (churning) annually.</td>
<td>Moderate</td>
</tr>
<tr>
<td>Ratio of online and mobile accounts opened is based on estimates from industry analysts.</td>
<td>Moderate</td>
</tr>
<tr>
<td>Strong growth in the number and size of institutions offering mobile account opening.</td>
<td>High</td>
</tr>
<tr>
<td>No significant change in regulatory treatment of online and mobile account opening (no legislation authorizing portability of accounts in U.S.).</td>
<td>Moderate</td>
</tr>
<tr>
<td>Government jurisdictions issuing identity credentials will participate in data sharing.</td>
<td>High</td>
</tr>
<tr>
<td>Photo capture capabilities will increase allowing institutions to capture identity information.</td>
<td>High</td>
</tr>
<tr>
<td>Signature-specimen capture (and physical signature cards) will be required by fewer institutions and will become fully digitized.</td>
<td>High</td>
</tr>
<tr>
<td>Banks and credit unions will accelerate branch closures, increasing reliance on digital channels.</td>
<td>High</td>
</tr>
<tr>
<td>Consumer use of mobile devices will continue to increase and concerns regarding security of information transfer will decrease based on device and institutional safeguards.</td>
<td>Moderate</td>
</tr>
<tr>
<td>By 2020, 80% of consumers will be able to open accounts at their chosen institution using a mobile device.</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Source: Digital Banking Report © August 2015 Digital Banking Report
For new customers or members, digital account opening is an initial proving ground for a bank’s or credit union’s digital capabilities. Digital account opening is also critical for deepening relationships with existing customers. So, how do we design for an improved user experience?

According to a recent report from Andera entitled, ‘The Future of Account Opening,’ the percentage of online deposit product applicants coming from mobile devices increased by over 800% in the past few years, from less than 3% in 2010 to close to 25% in 2014. Today, about one in four online applicants apply from a tablet or a smartphone.

In a broader context, this trend makes sense. Today 58% of consumers own smartphones and 42% own tablets, and those numbers are growing at exponential rates. Estimates for the percentage of all web traffic coming from mobile devices range from nearly 20% to over 30%. While banking began shifting from the branch to online more than a decade ago, banking today is shifting from online to mobile at a much more rapid rate.

But the evolution of mobile account opening (MAO) has some key differences from online account opening (OAO). Whereas the growth in online account opening required institutions to develop an online account opening solution and consumers had to choose to apply online, the rise of mobile account opening has occurred even where there is not a dedicated mobile account-opening app. In many cases, customers have simply chosen to access the online account-opening app through their mobile device rather than wait for an optimized solution.
Designing for an Improved User Experience

Similarly, where the difference between traditional account opening and online account opening was relatively straightforward – the former occurred in a branch speaking with a representative, the latter at a desktop typing on a computer – the difference between “online” and “mobile” isn’t always so clear cut.

Here are the key issues when building a state-of-the-art mobile account opening experience:

**Clean Navigation**

BB&T has embraced both tablet and mobile-phone account opening. The company has likewise developed a MAO approach that embraces all devices. BB&T decided to develop a solution internally to control the user experience and product lifecycle. At this point, the bank has limited smartphone account opening, available only to existing customers.

Using responsive design, the presentation changes depending upon the type of mobile device. For smartphones, the screen is optimized for both customers and non-customers.

Customers have a front-and-center Logon button, and non-customers are presented with the six most common options, plus a menu button for other activities, including mobile account opening.

Consumers using a tablet are presented with a completely different screen, similar to what PC users see, with the addition of a popup inviting them to download the mobile application.

For both phone and tablet users, clicking through to checking accounts leads to similar navigation including mobile account opening. This device-specific approach meets a few specific business goals:

- Responsive web design provides device-specific presentation without having to maintain multiple versions of code.

- Users are presented with the optimal UI, and interactions are quick and easy.

- The elegant design is good marketing. Mobile-first consumers aren’t put off by a clunky user interface and are able to transact right from the start through their preferred channel.
Designing for an Improved User Experience

Prepare Consumers

Abandoned applications remain high. There are many reasons consumers start and then stop an account-opening process. One easy way to reduce drop-off is to make sure the potential customer is prepared for the account opening process. Worker's Credit Union (WCU) in Fitchburg, Massachusetts communicates in two ways with its “Before You Apply” page.

First, the four items needed to complete the process are clearly defined. Second, the tabs provide the four steps to open a new account. The credit union started looking at online account opening in 2005 and chose uMonitor from D+H.

WCU is using MAO and OAO to expand its reach across its entire statewide field of membership. The CU has used Google pay-per-click ads to market savings accounts to non-members with a link to their website. These accounts motivate consumers to complete the process and gain deposits.

Accounts opened online, including mobile, are assigned to their online branch. This online branch opened in 2011 and is already the third largest branch by deposits, having opened more accounts than all their other branches combined.

Workers’ Credit Union clearly lays out the necessary information prospective members will need to apply.
Designing for an Improved User Experience

Simplify Data Collection

Getting a new deposit account is just the first step; making it the primary account is next. Capital One has a comprehensive multi-channel follow-up program, designed to quickly shift new customers’ banking activities to the new account.

In many ways, Capital One is a standout with its MAO process. There are two schools of thought with online and mobile account opening. One approach is to limit the initial stage to a few simple steps, then follow up to complete the process or set up additional services. The second approach is to capture as much information as possible in the first session.

This is the approach Capital One has chosen. Within the MAO process, security questions are established, passwords are set for online banking, the device can be registered, and overdraft protection requested. Capital One’s accessible language and simple, clean user interface are impressive.

Because the process is simple and engaging, they can take consumers through a few extra steps. With vast experience in credit card marketing, its acquisition of ING Direct, and a focus on customer acquisition, it is obvious it is using that expertise to attract digital deposit customers.
Designing for an Improved User Experience

In addition to its in-session data capture, Capital One follows up with email messages, a debit card, check book, and a welcome package, all within days of account opening. The email message is first a welcome message and also an actionable step with links to either sign up or get more information about additional services.

Dear Jeanne,
Customer Number: XXXXXXXX443

Welcome to 360 Checking

Your 360 Checking is ready to go. All verifications are complete - now it's time to start using it.

Make the Most of Your 360 Checking

- Set up Direct Deposit. Download a Direct Deposit form today.
- Pay your bills online for FREE with Bill Pay. Just sign in and go to the 'Payments' tab to add your billers.
- Send money securely for free with Person2Person Payments.
- Access cash at over 38,000 free Allpoint® ATMs nationwide.
  Find one near you.
- Order a checkbook (50 checks for $5.00).

Access Your Account

1. Go to capitalone360.com and enter your Customer Number.
2. Enter your Sign In PIN.
3. That's it.

Thanks.

Capital One 360’s emails always show your first name and the last three digits of your Customer Number. If you don’t see those two items at the top, don’t respond, don’t click. Just delete. And remember, don’t email us with any personal info. Learn more at capitalone360.com/securityzone.
The Moven account opening process, much like those of other mobile-first organizations, is clean, easy to understand and devoid of paperwork requirements. The entire new account opening takes less than 5 minutes.

**STEP ONE:** Instead of using typical banking terminology such as ‘apply today’ or ‘open an account’, *Moven* begins the engagement with a potential customer by asking them to ‘take the tour’. This ‘tour’ is a mobile optimized video explaining the benefits of banking with Moven.
STEP TWO: Once the prospective customer takes the tour and learns more about the benefits of opening a Moven account, the applicant provides their name, email address and phone number. If the consumer abandons the process, Moven can immediately contact the person to find out why they did not complete the account opening.

STEP THREE: Notice that instead of an application process that is filled with small typeface and large amounts of data to provide, Moven keeps the process simple and uncluttered. In addition, when asking for an address, Moven provides the rationale (to be able to send account information and the debit card).
STEP FOUR: Additional insight must be collected to better verify identity of the applicant. The SSN and birthdate are asked for, with the prospective customer being able to access the terms and conditions (if they want) and provide an e-signature.

STEP FIVE: Never leaving the potential customer in the dark, Moven starts their onboarding process within the new account opening. They let the customer understand the next steps (including how to fund the account).
Designing for an Improved User Experience

Avoid Paperwork

The biggest flaw with most digital account opening processes is the inclusion of legacy, paper-based documentation. A typical digital account opening process ends with consumers left with two additional tasks: providing a photocopy of a government issued ID and completing a signature card.

Some banks include these steps within the application. In this process, the consumer takes a photo of their ID or scans it and uploads the file. Alternatively, they can print the signature card, sign it, and then forward the scanned image or photo to their institution. Other FIs streamline the digital account opening process and request documents as part of the welcome process in a confirmation email.

Rather than digitizing paperwork, new mobile data capture platforms enable companies to add image capture to mobile apps.

Multiple providers can now improve customer service and accelerate transactions by automatically extracting and validating information from photos and videos taken from a smartphone or tablet for downstream processing.

The most advanced applications can capture identification cards, passports, driver’s licenses, checks, bills, claims forms, pay stubs and transcripts in a variety of environments that are challenging for apps to handle. It also provides secure e-signature capture capabilities to eliminate fraud, not only as a physical signature, but also as a voiceprint.
Designing for an Improved User Experience

- **Customer Identification Program Requirement:**

  All banks and credit unions require a government-issued ID as part of their customer-identification program. More conservative institutions require consumers to forward a photocopy of a government issued ID before their account is opened.

  It is becoming increasingly common to eliminate capture of the photo ID by using digital verification. Many issuing jurisdictions will provide verification services of driver licenses, military IDs, and other government-issued credentials. For identities issued by these jurisdictions, institutions can capture name, address, and identification number and compare it to the information on file.

  This technology is currently being used in mobile capture products, and is invisible to the end user. Using third-party data for data scrubbing or to validate and correct information is a critical component of mobile capture technology. It also reduces the burden on the user to correct or manually enter information.

  This approach has been accepted by regulators, and is useful as part of a layered approach to identity verification. In this way, FIs can maintain the all-digital interaction. As we’ll discuss later, though, there are new developments in testing that provide better verification using smartphone features.

- **Signature Specimen Requirement:**

  The second instance where most banks require out-of-band action is capturing a signature specimen. Since signatures are still used to verify consumer identity when they write checks, most institutions capture a signature specimen as part of their fraud-detection process.

  Electronic signatures are acceptable as a legal substitute for traditional signatures, but few banks and credit unions use them for signature specimen. Electronically captured signatures often don’t match the penned signatures used on checks. There is a work-around to capture signatures that is well suited to online and mobile account opening but it has not been implemented by most institutions.

  With image check processing, banks can capture signature specimens from the first check written. According to its deposit agreement, SunTrust is using this approach.
Designing for an Improved User Experience

Pre-Populate Data

Both online and mobile account opening is streamlined when the consumer is already known. The first question every bank should ask is: "Do I know you already?" Consumers with online banking relationships can sign in with their credentials, creating a secure connection to access profile information. In addition, when using document photo capture, you can capture information from the identification documents and use it to reduce keystrokes.

![Image of account opening process]

Begin Onboarding

Cross-selling does not have to be offensive or intrusive. With digital account opening, banks have access to data to identify consumers and to select appropriate financial products.

Although some banks still see the branch as the best selling environment, this does not need to be the case. Digital account opening provides a perfect opportunity to offer appropriate products while the consumer is attentive and interested.
Designing for an Improved User Experience

At BB&T, consumers are presented with an opportunity to opt out of engagement ‘go-with’ services. Logical ancillary services are presented with a brief description, with customers encouraged to choose options that increase engagement (and transaction fees) and/or reduce paper (e.g., online statements).

The bank also offers to set up overdraft protection. Overdraft protection and savings accounts are the most common cross-sell products offered during the onboarding process.

Retarget Abandoned Openings

Banks should encourage consumers who have started the application process to come back and complete it. In some cases, it merely takes reminding the customer. But other consumers need additional help via chat or telephone support.

A surprising number of financial institutions ignore potential customers who wash out during the account opening process. Most have dashboards to monitor abandonments, declines, and exceptions. You should use these diagnostic tools to follow up with high-potential applicants and improve the process overall.

The easiest way to win back a potential customer is to reach out with a simple reminder to come back and complete the process. KeyBank gives applicants a month to come back and complete the process. BB&T calls and emails prospects to entice them to return.
Provide Advice

PNC, like Capital One, is a standout with its mobile experience, as long as you’re on a tablet. Mobile phone users accessing PNC.com find the main site with small text and poor navigation.

PNC is not using responsive web or redirecting to a mobile optimized site (though, if you know the URL, you can access a smartphone-optimized login-page at m.pnc.com). With the tablet version the bank has steered its own course with apps and an excellent user experience.

The bank was a PFM pioneer with the launch of Virtual Wallet in 2008, while the account was originally targeted to younger customers, it’s now available to all PNC customers.

What PNC does better than anyone is put their consumer in the driver’s seat. The typical checking account shopping experience is a list of checking products with different attributes and nondescript names. In contrast, PNC asks several questions about expected usage, and then recommends pertinent options.

The tablet mobile account opening process is fast and fully digital. After completing the application, onboarding is facilitated with links to Quick Switch and Quick Start guides.

At PNC, digital account opening is integral to its strategy of attracting digital consumers with a superior UX. What’s missing is smartphone account opening, but we look forward to that soon.
Digitize Branch Openings

Malauzai, a provider of mobile and Internet banking SmartApps, has heard from their customers that a key reason they are considering the addition of mobile capture for in-branch onboarding is because, “Combining branch functions with the mobility of a tablet will elevate member service and convenience to a whole new level.”

Another Malauzai customer reports that they, “want to make banking easy and convenient for our customers,” and believe that employee assisted mobile tools may provide this benefit.

Aite Group’s research commissioned by Mitek found that mobile capture used in-branch has the potential to help financial institutions in five main areas:

- **Reducing friction:** Using mobile-camera-enabled onboarding to prefill forms that would otherwise be manually completed reduces opportunities for errors, delays and abandonment.

- **Capturing user data and trailing documents:** Branch employees can use mobile tools to capture driver’s licenses and passports required to close a sale, and automatically import these documents into the system.

- **Processing applicants in real-time:** Using the camera to capture data provides banks the ability to analyze that data in real-time, leading to rapid fraud-deterrent and credit-related decisions.

- **Supporting in-branch staff:** Bank branches are limited in the number of transactions that employees can realistically complete in a day. Tablets with mobile capture capabilities have been shown to help bank employees complete transactions without a customer waiting in line for a teller. These benefits also can be expanded to off-site account openings at employers and community events.

- **Additional sales:** By delivering more structured data than traditional onboarding, new mobile tools can reduce the amount of manual input required by staff, increase their productivity and free them up for additional sales.

Aite Group estimates that mobile capture onboarding can help reduce mobile new account abandonment by as much as 25% when used in a self-service model. But when the technology is applied in-branch, banks are likely to increase the volume of new applications and enrollments that branch employees can accurately complete each day, helping to counter-balance the branch’s fixed costs.

Most importantly, it provides an improved experience for customers, which allows financial intuitions to attract and retain more customers in an increasingly competitive environment.
Fund Electronically

An important last step is to transfer funds into the new account. To reduce unfunded new accounts, banks usually try to push funding with electronic payments. Most offer three choices: debit and/or credit card funding; checking/savings account electronic transfer (ACH); or mail-in/drop-off a check. A few also offer wire transfer as an additional option, with even fewer offering a mobile deposit capture option (with a hold on the account until the check clears).

At BB&T, new customers opting for a paper-based initial deposit are encouraged to switch to electronic. As shown in the inset, BB&T’s pop-up box asks, “Want to make this easier?”—then presents faster alternatives.
BankMobile joins the ranks of Simple, Moven, GoBank, Amex Serve, etc. Unlike many of its competitors, however, BankMobile is an independent operating digital banking division of a real bank. The Adrenaline experience design agency championed BankMobile’s full brand architecture, designing its identity, messaging, marketing strategy, and user interface design. The BankMobile app is powered by Malauzai Software.

The design of the entire app developed by Adrenaline is very straightforward and avoids the unnecessary clutter common with traditional mobile applications. From the pages describing the BankMobile brand to the user interface, the product provides an exceptional user experience.

After downloading the app (both iOS and Android versions are available), it is easy to open a checking account on a smartphone. The feature that makes it unique was the application’s ability to scan the front of a driver’s license and the barcode on the back. The account opening app, powered by Mitek, provides feedback to improve the scan. It tells the consumer when more light is needed and when to move a license closer to the phone’s camera.

When the consumer is done photographing their license, they answer a few Know Your Customer (KYC) questions, type in a social security number, create a user ID and password and fund the account via a transfer from an existing bank account. All the requisite disclosures are presented and application review is provided.

The BankMobile app also has Photo-Bill pay and mobile check deposit (both powered by Mitek), person-to-person payments, and you can turn your debit card on and off. Most of these features are not found in the majority of bank or credit union mobile apps.
By focusing on ‘digital natives,’ the bar is being set by industries outside of financial services, requiring BankMobile to make continuous enhancements and increased ease-of-use.


Finally, BankMobile has developed a series of videos to help new (or existing) customers understand how to get the most out of their accounts.

[https://www.youtube.com/user/MyBankMobile/videos](https://www.youtube.com/user/MyBankMobile/videos)
LEADING CAUSES OF...

The greatest problem facing online and mobile account opening today is poor user experiences that drive abandonment. Applying for financial products entails many steps to satisfy risk requirements and comply with regulations. Here are the top seven reasons online applicants quit - provided by Andera.

- **FRUSTRATION**
  - Online forms can be so annoying that even consumers determined to switch may choose to stick it out with their current bank. The process must be kept as short and as easy as possible.

- **CONFUSION**
  - Financial applications can be complicated, especially for people who don’t live and breathe banking. It is important to use straightforward language, plentiful help text, and intuitive application ordering.

- **FEAR**
  - Dealing with money can be scary, and if consumers fear that their personal data may be compromised, they’ll abandon. To combat this fear, reassuring help text, symbols indicating security and the appropriate controls must be used.

- **DISTRACTION**
  - While you can’t control an online applicant’s environment like you can in the branch, it is probable that the opening process will be interrupted. Easy-to-use save and resume functionality is essential.

- **FAIL IDENTITY VERIFICATION**
  - Applicants with thin credit files often fail identity verification. A second verification option, like photo ID upload or verification via alternative data, can save applications that would otherwise be rejected.

- **FAIL FUNDING VERIFICATION**
  - Challenge deposits are the best way to verify account ownership for ACH transfer, but they require applicants to wait for hours or days, and are one of the leading causes of abandonment.

- **SIGNATURE CARDS**
  - Many institutions require applicants to mail in signature cards, taking the process off-line and causing many approved applicants to abandon. With electronic signature, it doesn’t have to be this way.
IDENTIFICATION VERIFICATION (IDV)

Making the new account opening and onboarding process as seamless as possible, and one that can be considered truly convenient, organizations must enable new customers to complete application journeys on mobile devices. One key area of disruption that takes customers away from the mobile (and desktop) channel during these processes is the need to verify identity.

Here are the different types of verification required by governmental agencies:

**IDV** (ID Verification) is the verification of an ID to determine its authenticity. Passports for example have a passport reader / scanner that will determine if the passport is fake or genuine and could possibly also include checking against a database. New mobile technology allows for the verification of other IDs such as drivers licenses using both the front and back to validate against governmental databases.

**KYC** (Know Your Customer) is the process by which you need to know the customer. This includes ID verification, taking other ancillary information like where you currently live, your employment (optional), copies of utility bills (optional), address verification, etc. It is ideally supposed to provide you a better profile of your customer. Some organizations are testing verifying customers with social media channels as well.

**CIP** (Customer Identification Program) is the KYC + checks against various blacklists or other government watch lists. This would be similar to checking against databases that indicate whether a prospective customer has had a previous fraudulent checking account.

Digital IDV solutions have the potential to provide fast, reliable, and cost-effective identity verification that minimizes the need for manual verification. As a result, new accounts can actually be opened more quickly, reducing frustration and speeding up customer onboarding.
As with many mobile banking applications, making a business case for adding mobile account opening is difficult. Since most mobile customers could be persuaded to use a desktop browser to open an account, the sales lift from MAO is hard to quantify. But digital consumers expect the simplicity of design and process available through a mobile device. How long can your institution wait?

CHART 13: DIGITAL ACCOUNT OPENING BENEFITS

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extend reach to younger, and more affluent digital consumers.</td>
<td>A common expectation when banks roll out MAO is that they will attract a younger demographic. Instead, they find not so much a younger demographic, but applicants who are more comfortable with digital processes. It’s not just young people who use their mobile devices. When we dig under the covers we see that tablets are often used to open accounts. It’s no surprise that banks see a wealthier demographic using tablet and smartphone MAO. After all, tablets are often luxury items attracting upscale users. But as tablets and smartphones become mainstream, the MAO demographics will approach the average. What will be long lasting with MAO is the ability to reach beyond the financial institution’s geographic footprint, attracting mobile-first consumers who will be heavy users of online services but may never visit a branch.</td>
</tr>
</tbody>
</table>
# Digital Account Opening Business Case

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare for the mobile-first expectations.</td>
<td>OAO in its first iteration was designed for PC-based consumers. Banks must now adapt their solutions to accommodate devices that weren’t anticipated and to have capabilities that enhance account opening. MAO will very soon be as fraud-resistant as in-person account opening.</td>
</tr>
<tr>
<td>Increased cost savings and improved cross sales.</td>
<td>The cost-savings calculation is difficult since branches aren’t being closed and staff isn’t being reduced because account opening moves to digital channels. However, moving account openings to digital channels can free branch staff to focus on selling and advisory activities.</td>
</tr>
<tr>
<td></td>
<td>Leveraging mobile account opening to improve the in-branch opening experience is advantageous. Capturing identity documents with a click of an iPad instead of today’s paperwork-based process allows for better engagement, onboarding and selling. The reduction in time it takes for account opening can also be used to collect deeper customer insights, thereby improving the potential for future cross-sell, up-sell and contextual communication.</td>
</tr>
<tr>
<td>Less ‘shopping cart’ abandonment.</td>
<td>Most consumers already shop for financial products online and many still go to a branch to open an account. The more time that elapses between the online research and the “stop at the branch” errand, the more likely you are to lose the sale.</td>
</tr>
<tr>
<td></td>
<td>With MAO, consumers can shop and open in the same session. And with electronic funding, debit cards can be activated and mailed to consumers immediately. As long as underwriting processes are similar, fraud rates should remain constant.</td>
</tr>
</tbody>
</table>

Source: Digital Banking Report © August 2015 Digital Banking Report
5 WAYS TO SIMPLIFY ACCOUNT OPENING WITHOUT DIGITAL TOOLS
By: Langdon Andrews, VP/Marketing, Pannos Winzeler

Financial institutions of all sizes are rapidly adopting online account opening. It's definitely where everyone is headed, but right now it may be beyond the reach of some smaller banks and credit unions. If you're one of those institutions, here are a variety of tactics that can still provide similar convenience to consumers.

1. Online Forms

Online Forms get customers started on the application process and many customers find online forms easier than printing and filling out a PDF. Online forms can also be easily added to most websites at reasonable cost.

*Peoples Bank* in Indiana collects product and contact information on an interactive form, which is then sent to a bank representative who will work with the customer to complete the process.
2. Online Switch Kits

Why use an online switch kit rather than forms that a customer can print out? Online forms mean the customer can type in the information, then simply send it over to the bank.

Some customers appreciate not having to fill out a form by hand or wait in the branch while a customer service representative fills out their form. Dean Bank uses a very intuitive online switch kit to get the process started with their customers.

3. Clear Calls to Action

Calls-to-action like "Open Now," "Apply Now" or "How to Open" that clarify the next step in a process may seem obvious, but many financial institutions struggle with these. Make sure that all product pages have prominent calls to action that link to information on how to contact the institution or how to open an account.

The Bank of the Sierra product page is a great example of a clear call to action that gets customers to the information that they need.
4. Calls-to-Action in the Main Navigation

Should anything be easier to find on your website than Open An Account? Not surprisingly, analytics show that customers frequently use the main navigation buttons to open a new account or apply for a loan.

Poke around the Dean Bank website and you’ll see prominent calls to action in the main navigation that make it easy for customers to get started.

5. Simplify the Buying Process with 'Account Choosers'

Make it easy for potential customers to find the products that will best meet their needs. Account choosers provide product recommendations based on the customer’s answers to questions about themselves. Usually they ask a few simple questions, but they can be built to handle a more complex product selection. Bank of the Sierra provides a simple Account Chooser that guides customers to an appropriate checking account with just a couple of questions.

Even if your website doesn’t have the latest account opening technology, customers are always attracted to convenience and simplicity. Focus on providing an exceptional buying experience. Make it easy to become a customer, and you will remain competitive with institutions offering all the latest website tools.
Support for digital account opening is evolving quickly, and there are literally hundreds of solution and data providers that can be leveraged as a component of mobile account opening. In this section we provide brief descriptions of a handful of the solution providers who are prominent and may be considered.

While some of the solution providers below specialize in the new account opening process, others provide services in conjunction with a broader range of integrated and non-integrated solutions. The majority of the solution overviews were submitted by the solution providers.

**Andera**

*Andera* was the name often associated with online account opening in the United States (the company was acquired by *Bottomline Technologies* in 2014). Today, Bottomline continues to provide real-time online account opening solutions for *consumers* and for *businesses* to hundreds of institutions.

Bottomline Online Account Opening is a software-as-a-service solution, using customizable templates and responsive web design.
Digital Account Opening Solution Providers

The solution makes it especially easy for mobile applicants. The consumer can take a picture of a driver’s license and reduce manual data entry, they can supply supporting documents just by taking pictures of them, and they can sign their application just by signing their touch screen with a finger.

If applicants need more time, they can save their application and finish it later. The technology was awarded Best of Show at Finovate multiple times. You can read more information about the new account opening process here.

The solution provides a modern user interface and a customizable workflow on the back-end. Institutions deploy the solution through their public websites and online banking sites, and many use it to open accounts in branches, in offsite meetings with their business customers, and at campus or community events.

The management console provides work queues for applications that require manual intervention, monitoring and tracking of completed and abandoned applications, and security features.

Avoka

Avoka delivers a platform for frictionless digital sales. They solve the omni-channel account opening problem for banks, insurance, and wealth managers where traditional ‘shopping cart’ digital commerce solutions do not fit.

Solutions include account opening, applying for a credit card or loan, submitting an insurance claim or enrolling for an investment account. Founded in 2002, customers include some of the largest banks and government agencies in the world with over 16,000 sales and service transaction projects completed and upward of 100 million global business-critical customer transactions completed each year.

Avoka Transact for Financial Services delivers a simplified account opening experience integrating mobile, online, call center and branch channels. By connecting to over 30 social and network resources such as LinkedIn for identity and employment pre-fill, Yodlee for financial background, or Experian for credit history, an account application can be reduced to just a few clicks.

Integrations such as E-SignLive capture digital signatures from mobile devices. Recognized for simplicity, Citi awarded Avoka ‘Most Innovative Customer Engagement Solution’ at the Citi Mobile Challenge for its 90 second account opening.

The Avoka solution has been able to reduce abandonment by 57% or more allowing account opening to begin on a mobile device and be completed in-branch or via telephone. Finally, Avoka increases business agility of the bank with its no-code solution and rapid test/learn/modify cycles. Changes to forms can be implemented and tested daily, identifying specific bottlenecks in the application process and testing streamlined forms.
Digital Account Opening Solution Providers

BancVue

The INMO® Digital Account Opening (DAO) platform offered by BancVue features a streamlined 3-step process that focuses on the best user experience to drive more funded accounts. The latest version is completely responsive so applicants on mobile devices will have the same great experience as desktop applicants.

While most DAO providers direct the applicant to a third party URL, INMO allows the consumer to stay on the community institution’s domain. This increases trust with the consumer and ultimately leads to more completed applications.

INMO includes identity verification via OFAC/CIP/Experian Database Matching/Out of Wallet Questions/ChexSystems, multiple funding options including ACH, Credit or Debit Card, and DocuSign integration. This allows INMO to create an easy digital application process for the applicant and the front line staff of the institution.

The back end of INMO allows a personal banker to ensure more funded accounts by emailing the applicant, requesting documents, getting signatures, adding notes, and viewing best practices.

In addition to Kasasa, BancVue specializes in localized SEO that targets potential shoppers and drives them through a sales funnel on a responsive website. With 10 years of experience and over 400 community financial institutions, BancVue makes it easy to succeed online. Find more information at www.thisisfirstbranch.com.
Digital Account Opening Solution Providers

D+H

In 2010, D+H acquired uMonitor and its uOpen online account opening solution. Like Andera, uMonitor was a startup with a strong online account opening solution and a suite of related solutions serving the community bank and credit union markets. uOpen provides a customizable front-end and a responsive user interface with business rules. It supports pre-population of fields for existing customers, and appropriate navigation and display options for tablets and phones.

When combined with uSwitch, uOpen provides a pre-integrated funding solution. The solution can also be adapted for in-person account opening by providing consistent user experiences and processes across channels. uOpen can be implemented as part of the suite of D+H solutions, or in a multi-vendor environment.

Combined with D+H’s DecisionPro, uOpen offers streamlined consumer loan account opening, with integration to LaserPro, the leading compliance loan document management system. The uOpen solution includes a front-end UI, workflow, funding, reporting, and decisioning. They also offer uSwitch, a “switch kit”, aimed at helping institutions not only to open an account, but also to increase the odds of that account becoming the primary transaction account.

A Solution Tour of uOpen via YouTube can be viewed using the following link: https://www.youtube.com/watch?v=DBy6hBziWqM

In addition, the following links provide deposit and loan case studies:

Digital Account Opening Solution Providers

**Experian**

For nearly two decades, Experian has been helping clients solve the difficult and ever-changing problems of fraud detection and identity management. Experian’s core expertise was further enhanced by the 2013 acquisition of 41st Parameter, which added device identification as another important layer of sophistication to their suite of fraud detection tools.

Recently, Experian launched a new fraud enterprise business unit bringing all components of its Fraud and ID services together to better serve all markets through innovative authentication techniques, advanced analytics and big data insights.

Data security and fraud management is critical to many industries as identity data has become so compromised that authenticating consumers through traditional means is not enough to safeguard against fraud. Modern fraud risks now absolutely require big data assets and the proven ability to derive predictive analytical capabilities to meet these challenges.

Today, online and mobile commerce, and customer demands for convenience and speed are intersecting with the increasing sophistication of criminal fraud networks. Experian’s fraud business delivers next-generation holistic fraud management services, leveraging its vast data landscape to identify customers’ risk for fraud even when no threat has been detected to stay ahead of the growing market demands.

The end result is enabling consumer’s access to a seamless experience—online and on mobile devices—with any businesses that uses their fraud prevention services.

Below are some featured Experian fraud and identity products:

- *Precise ID*
- *Precise ID® with FraudNet*
- *Identity Element Network*

Here is a longer list of Experian’s identity fraud management and data breach services.
Gro Solutions

Gro Solutions is a subsidiary of Mobile Strategy Partners (MSP), which provides strategic and technical advisory services to the financial industry.

Gro Account Opening is the first and only solution on the market offering online, mobile web and native mobile app account opening solutions for use by both financial institutions’ customers and employees. Gro Account Opening leverages GPS, imaging, wireless carrier data, email address parsing and other features to limit manual text input and reduce high abandonment rates often found on the mobile channel. Whether online, on the go, or at the branch, financial institutions can open and fund new accounts in less than four minutes. Gro Solutions’ regulatory expertise also helps balance the user experience while adhering to regulatory requirements.

With mobile application attempts growing to one-in-three for sites allowing them, high abandonment rates of 80% or more result in a serious headwind to growth. Gro Account Opening is a direct result of discussing this problem with many financial services executives.

Fiserv

The online channel is increasingly becoming the most important tool available to financial institutions for the acquisition of new, profitable customers.

OpenNow/FundNow from Fiserv allows financial institutions to cost-effectively capture potential new customers with instant online account opening and funding. It helps financial institutions leverage their online channel to capture prospects in real time by facilitating instant account opening and funding through an institution’s branded website.

OpenNow/FundNow converts prospects into account holders by providing them with shorter application processing time and a choice of quick and easy funding methods. Prospective customers can apply, be approved and fund a new account all within a single session. OpenNow/FundNow offers a breadth of features including:

- **Robust identity and account verification**: facilitates enhanced real-time verification of funding account ownership by using a combination of multiple data sources and Fiserv proprietary verification methods
- **Account opening queue and operational workflow**: enables financial institutions to streamline and monitor the workflow for pending applications using a Web-based application

The technology is fully hosted in a software as a service model (ASP). Integration is typically into a financial institution’s public web site. Optional support for existing customers can be provided through an integration to online banking environments through a single sign-on (SSO) methodology.
Digital Account Opening Solution Providers

Jack Henry

*Opening Act*, from *Jack Henry* is offered through a strategic partnership with *MeridianLink, Inc.* It is a Web-based origination system that enhances Internet banking sites with the capabilities to securely and seamlessly originate deposit accounts, consumer and mortgage loans, and credit cards. This solution offers deposit account origination capabilities that include multiple identity verifications, credit and OFAC checks, and queries against check history. Opening Act enables funds to be immediately transferred into new deposit accounts via ACH, debit cards, and credit cards and offers the ability to generate pre-filled documents and signature cards.

Opening Act’s loan origination capabilities allow customers to apply online for credit cards and auto, consumer, home equity, and mortgage loans. This solution’s pre-qualifying engine analyzes loan and credit data in near real time and typically generates lending decisions in 10 to 15 seconds. This system interfaces with Fannie Mae Desktop Underwriter, Freddie Mac Loan Prospector, and AVM; validates flood report, title, and tax information; and provides a credit analyzer to help customers improve their credit ratings.

Jumio

*Jumio* has specialized in developing SaaS solutions by leveraging smartphone cameras to initiate payments and authenticate consumers. The company has solutions focused on card initiation, identity authentication, and data capture. Jumio has grown very quickly, focusing on internet retailers rather than financial institutions - a much better bet than counting on financial institutions to embrace a new entrant.

Jumio’s approach has been specifically developed to meet the challenge of how to verify identity in a connected-device environment. They use computer vision technology to validate, extract and auto-populate customer data from ID documents to deliver fast and easy account origination or other transactions. It’s a real-time process; document authentication takes place seamlessly in the background so that customers are not inconvenienced and the momentum of the remote transaction is maintained.

Here are the benefits of applying this technology to banks, money remittance businesses, prepaid card issuers, short term lenders and other financial services:

- Reduce drop-offs in digital account opening
- Prevent originations fraud through document authentication
- Authenticate ID credentials issued by over 120 countries
Lexmark (Previously known as Kofax)

*Lexmark* is a leading provider of smart process applications that simplify the business critical *First Mile™* of information-intensive customer interactions. The company combines market leading capture, process management, analytics, and mobile capabilities that enable organizations to increase their responsiveness to customers, provide better service, gain a competitive advantage, and better grow their businesses while reducing operating costs.

The *Kofax Mobile Capture™* Platform can onboard customers with the right product at the right time with the right risk assessment profile in a completely automated fashion. The mobile account opening solution incorporates mobile image capture, authentication, workflow, real time decisioning, product selection and digital signature capture to “seal the deal”.

Lexmark’s platform combines the speed and convenience of mobile to enhance the user experience, with the security and confidentiality of a traditional branch experience. This is the only platform in the market that incorporates all of the critical components needed to make real-time, intelligent and risk balanced decisions using a mobile device.

Mitek

*Mitek* is a leading innovator of mobile capture and identity solutions for customer acquisition. Mitek’s mobile photo technology enables consumers to use the Camera as a Keyboard™ to reduce friction for mobile check deposit, account opening, insurance quoting, payments, and ID document authentication.

This innovative mobile technology is licensed by more than 4,100 organizations and used by tens of millions of consumers. In June of 2015, Mitek acquired IDchecker, a global provider of cloud based identity document verification and facial recognition solutions. The acquisition broadens Mitek’s global presence, expands document coverage to more than 3,500 document types and adds international customers in payments, financial services and information services.

Mitek’s Photo Fill™ addresses the mobile abandonment problem with fast and accurate data pre-fill. Consumers capture a photo of the front and back of their ID, and the data is quickly pre-filled into the mobile form to instantly open and fund new accounts via mobile web or a native app.

PhotoFill can also be enabled to fund new accounts instantly using a photo of a credit/debit card or check. This technology reduces friction and abandonment rates in the mobile application process to double the number of accounts booked.

Illustrating this, US Bank wanted to give Minnesota Twins’ fans a simple and enjoyable application experience when applying for a Minnesota Twins Rewards Mastercard. US Bank used an app they created called Photo Apply, powered by Mitek’s Photo Fill™, which made applying for a credit card as simple as taking a picture of a driver’s license. This process increased application approvals by 50% due to data accuracy.
Zoot

Zoot has a mobile account opening (MAO) solution that facilitates a quick and intuitive consumer experience. Their decision engine can handle complex scorecards with the ability to integrate data from any of nearly 100 data providers in their network. It can be implemented to support omnichannel account opening as well.

Their decision engine provides real-time analysis to identify and qualify consumers. In a MAO implementation, it is a component behind the user interface, providing instant decisioning for credit, fraud, identity, and compliance risks. It provides FIs with flexibility to quickly evaluate and switch between pre-integrated data providers or add new ones. Tools to quickly implement mobile and web interfaces complete the MAO solution, enabling institutions to support all of their channels.

Banks and credit unions can deploy Zoot’s workflow solution to manage stipulations and manual processes across all products. Zoot expects that omnichannel approaches such as Zoot’s will be the future of MAO. With Zoot, institutions can have the same platform across the institution with shared back-end and underwriting processes, though different products and channels can use different data sets and rules.

One of the issues with building a solution now for MAO is the evolving set of data types and providers that are available to improve decision-making. For institutions with a satisfactory decisioning platform in place, they can deploy Zoot as a single integration point for multiple data providers. This is an approach appropriate for large institutions that deploy different solutions across regions and/or channels.

As banks and credit unions drive for account growth, Zoot enables them to move into production quickly with new data sources and make changes based on business needs without having to rely upon internal technology resources to implement the change.

Mobile banking has become a leading feature on banking websites. Frost Bank uses a smartphone on the landing page of for its personal checking accounts.
All trends indicate that consumers want to utilize online and mobile channels with greater frequency for virtually all banking transactions. Unfortunately, research of bank digital account opening continues to show a significant difference is completion success rates between physical and digital channels.

**Branch Account Opening**

The branch channel has the overarching advantage of direct face-to-face contact with individuals. As a result, this personal attention leaves consumers feeling more valued and understood than they might otherwise feel online, allowing more appointments being converted to sales.

In fact, according to *McKinsey*, the 15% listed as a failed sale is often due to applications being declined by the bank for either identity or fraud reasons. It’s also important to note that the 85% success rate is based on customers who actually entered the branch – usually as a result of an out-bound sales call and/or after research has already been done by the consumer online.

To improve branch sales and ensure a high conversion rate for initial outbound calls, the use of customer data can result in increased branch sales as contact is made in a more timely and relevant manner. Using digital tools to streamline the account opening process will also improve account opening (and subsequent cross-sell) success.
Branch vs. Digital Account Opening

Branches still account for more than 50% of all new product sales. While the mix will change, it is likely to remain the prominent sales channel for some years to come. This assumes greater emphasis will be placed on the understanding of customer needs and greater use of digital tools for an improved consumer experience.

**CHART 15: OPTIMIZING DIGITAL CHANNELS FOR IMPROVED PERFORMANCE**

<table>
<thead>
<tr>
<th>Initial Channel</th>
<th>Second Channels</th>
<th>Leakage rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer browses web</td>
<td>Customer applies 80,000</td>
<td>85%</td>
</tr>
<tr>
<td>270,000</td>
<td>Application completed 40,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>190,000 lost</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer visits branch</td>
<td>Customer referred to web 45,000</td>
<td>45%</td>
</tr>
<tr>
<td>185,000</td>
<td>Application completed 155,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30,000 lost</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer calls</td>
<td>Customer referred to web 85,000</td>
<td></td>
</tr>
<tr>
<td>160,000</td>
<td>Application completed 10,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>38,250 lost (85% leakage rate)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12,750 lost (15% leakage rate)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20,000 lost</td>
<td></td>
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</tbody>
</table>

Branch vs. Digital Account Opening

Digital account opening results in different customer challenges. For online or mobile account opening (and even a digital process within the branch), it is essential to provide consumers with a simple and engaging digital journey that helps them get to the end of the application, before they get bored or distracted and log-off. The consequences of not succeeding are unopened bank accounts and more effort and resources being directed to recover the lost sales opportunity.

As mentioned in this report, many ‘digital’ account opening processes still require bank personnel engagement, posting of documents and even asking a customer to visit a branch to complete the transaction. Since most consumers who want to open an account online do so because they don’t want to visit a branch, additional friction is likely to result in process abandonment.

The problem with digital account opening at most organizations is the benefits of ‘being digital’ are at least partially negated by legacy systems and processes. Digital account openings can lose 35% of potential customers because they cannot identify the customer. An additional 35% give up at some point during the journey because it proves too difficult, with approximately 15% failing the process altogether. This leaves as few as 15% making it through to open an account.

The question is whether legacy financial organizations are willing to invest the needed resources to become truly ‘digital’ or if they will continue with a hodge-podge of systems and processes that create friction and lost opportunity.

Each year, the number of challenger digital banks increases, unbound by dated legacy systems and eager to get their share of the market. While they have yet to make a serious dent, the threat of challengers will only increase if legacy banks don’t make the initial engagement process simpler.
As with most of the digital-only banks such as Moven, Simple and GoBank, the mobile account opening process for BankMobile is simple to understand the easy to execute from a mobile device.

The introduction screens for BankMobile account opening, immediately set expectations that opening a new account will be an easy, sequential process 'as simple as 1, 2, 3.'
Addendum: BankMobile Account Opening

Capturing the email address as part of the first step allows BankMobile to reengage at a later time if the prospective customer abandons the account opening process.

Disclosures are handled similar to most mobile applications, allowing the new customer to do a deeper dive if they prefer. Otherwise, they acknowledge receipt and move to the next step.

As opposed to restarting the new account opening process for each new product, 'go with' services (including savings) are offered up front.
Addendum: BankMobile Account Opening

Using a simple drop down option box, the customer determines how they want overdrafts to be handled.

Once the overdraft coverage option is selected, the customer is asked to take a picture of the front and back of their drivers license. (This process is supported by Mitek for BankMobile.)
Addendum: BankMobile Account Opening

The information from the government ID is used to pre-fill the majority of the application form. In each instance, the customer verifies if the information is correct.

As with the previous information, the majority is pre-filled if a picture of a government ID is taken. Again, any missing information is inserted by the customer and verified.
Addendum: BankMobile Account Opening

A recap of all information collected is presented for review and final approval.

The final steps before funding are to provide additional security information. This provides an additional level of comfort and assurance to the new customer. The user name and password are the last step.
As with all other steps in the new account opening, the ability to fund the account is done digitally (either with mobile deposit capture or by providing account number information manually).