Abstract
Customers want their banks to perform like non-financial web services in how they gather and use data for personalization. However, financial institutions are generally unprepared to supply the desired personalized interactions and communications. As financial institutions seek to deliver a personalized digital banking experience that helps customers manage daily transactions and achieve their financial goals, they can also turn mobile banking into a smoothly operating sales machine.
Personalization Efforts Need a Digital Transformation Roadmap

The fact that CMOs and CEOs are leading most of digital transformation efforts underscores the importance of this effort and the potential effect on the bottom line. Along with the digital transformation, personalization technology has evolved from the original Customer Information File (CIF) to embrace a new paradigm of self-service online and mobile banking. To keep up, banks must provide personalization across all channels, drawing upon advanced analytics capabilities to become a proactive trusted advisor. As the quality of this experiences rises, institutions stand to increase revenues, reduce costs, and improve customer engagement, resulting in greater loyalty and customer satisfaction.

The Evolution of Personalization in Banking

From CIF to Customer Advocate

Urban Legend has it that the first CIF appeared after a customer incident involving a small transaction occurred and the employee failed to realize that she was a wealthy customer of the bank. The idea of “know your customer” was truly born to identify and cater to the best customers.

Successful banks have always been “customer centric” to some degree. For example, the concept of “relationship manager” is used for commercial customers. This form of personalization arises from trying to anticipate and satisfy the needs of clients. For many customers, this extra attention from the bank is welcome. Future loans are quicker to process as the bank is fully aware of the customer's credit and collateral.

Furthermore, the world of retail banking in the digital age is shifting rapidly from product-centric to customer-centric. Consumers are quickly adopting digital banking to manage their financial goals. To effectively meet their needs, banks must become customer advocates rather than just service providers.

“Our of the 91 percent of American consumers who have a checking, savings, or money market account, the majority use some form of technology to interact with their financial institution,” according to a Federal Reserve Report.

The industry is now 20 years into online banking and 10 years into mobile banking. Customers are fully acclimated to the tools and resources available through online channels, and usage continues to increase. More than one-third (38 percent) of consumers with bank accounts used mobile banking in the past 12 months, up from 35 percent the previous year.

“Consumers want their financial institution partner to securely manage their finances, understand their goals and preferences, and proactively deliver the right offers and services to help them achieve financial well-being. This personalized engagement will differentiate itself not only from other banks but from fintech start-ups as well,” according to Jim Marous, co-publisher of The Financial Brand and Publisher of the Digital Banking Report.

The Online Banking Perception Gap

In a recent survey by GfK, customers responded that they “think the bank has their best interests in mind,” 34% of the time, while banks perceive that customers think it is 43%. Similarly, when customers were asked if, “my bank makes me feel like I am a number,” customers agreed 20% of the time while banks thought it would be 10%. There is clearly a gap between the banks’ and the customers’ perceptions.
Customers believe that banks should know their short- and long-term financial goals so they can provide support in meeting those goals. However, an average of only 24% of respondents believe that their bank understands any of their current goals.

**Increasing Mobile Expectations**

The digital revolution launched a dramatic change in expectations. More and more consumers are expecting the same quality of experience across all channels in all categories of products and services.

In a 2015 study by the Federal Reserve, consumers now expect their mobile phone to be an integral part of their shopping experience. One quarter or more expressed interest in greater functionality on their phones.

In the survey, consumers were asked to select the types of activity they would like to perform with their mobile phones if the function were made available to them:

- 24% want to use their mobile phones to compare prices
- 26% to receive and manage discount offers and coupons
- 24% to receive location-based offers
- 19% for storing gift cards or tracking loyalty/reward points
- 13% to manage their personal finances

Mobile banking users also clearly prefer to access their accounts through the online banking and mobile banking channels, using these channels at twice the frequency of ATMs, branch, or telephone banking.

When asked about usage in the previous 12 months:

- 39% of mobile phone users with a bank account reported that they used mobile banking
- Mobile banking among smartphone users with a bank account is substantially higher at 52%, up modestly from earlier surveys
- The higher rate of mobile banking adoption among smartphone users implies that as smartphone adoption increases, mobile banking usage will rise as well

### Table A. Channel access among mobile banking users

<table>
<thead>
<tr>
<th>Channel</th>
<th>MB users who used channel in the past 12 months</th>
<th>MB users who used channel in the past month</th>
<th>Median frequency of channel use in the past month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile banking</td>
<td>100</td>
<td>90</td>
<td>5</td>
</tr>
<tr>
<td>Online banking</td>
<td>95</td>
<td>97</td>
<td>6</td>
</tr>
<tr>
<td>ATM</td>
<td>92</td>
<td>85</td>
<td>3</td>
</tr>
<tr>
<td>Branch/teller</td>
<td>85</td>
<td>72</td>
<td>2</td>
</tr>
<tr>
<td>Telephone banking</td>
<td>36</td>
<td>68</td>
<td>2</td>
</tr>
</tbody>
</table>

1. Of those who used channel in the past 12 months.
2. Of those who used channel in the past month.

Source: Board of Governors of the Federal Reserve System, Consumers and Mobile Financial Services

**Required Mobile Personalization**

With rising customer expectations and the increasing adoption of mobile and online banking, delivering an exceptional and relevant connected experience across the marketing, sales, and customer service continuum emerges as a requirement for continued revenue growth.

Furthermore, customers, especially millennials and younger generations, are increasingly turning to messaging applications as a primary channel of interaction. Over half of Android and iOS mobile users use messaging apps at least monthly.

Banks must also take advantage of messaging platforms to personalize customer communication and deliver individualized guidance through an interactive channel.

**A Roadmap for Digital Personalization Initiatives**

**360-degree View of Customers**

Unable to ignore the dramatic changes in customer expectations due to the digital revolution, the rise of mobile banking, and the perception gap that exists between banks and their customers, banks must urgently seek a pathway to personalization using all available internal and external resources.

By leveraging advanced predictive analytics, banks can do more with the vast amounts of customer data, which is now at their disposal. Effectively analyzing the wealth of customer information yields a 360-degree view of customers. With the right tools, they can use that customer data to generate real-time insights and unique recommendations to increase customer satisfaction and loyalty.
Mobile Advertising and In-app Marketing Opportunities

Smartphones have given customers the ability to communicate from wherever they happen to be at the moment. The integration of camera, phone, and location data with functional apps enables many ways to perform tasks and execute transactions. Depositing checks by taking a photo is becoming the norm with users, saving them a trip to the ATM machine. Mobile payment apps are also being used in greater numbers by many banking customers who no longer prefer to carry cash.

Mobile advertising is a powerful personalization tool with untapped potential. According to recent research, consumers are spending 25% of their time on their mobile devices, but mobile ad spending is only 12% of all ad spending. Compared to other marketing channels, it is estimated that the growth of mobile advertising will increase significantly more than any other channel.

The industry is seeing an increased focus on in-app mobile banking offers because this channel provides a solution that can engage targeted consumers without interrupting their mobile banking transaction. In-app mobile banking marketing works well because it combines the power of rich customer insights already on file with location data, context, and a wealth of demographic data. Banks and credit unions can understand and more fully engage customers with in-app mobile marketing delivered at a variety of touch points.

Trust and Actionable Advice

With a growing number and variety of financial options, customers need more advice. Banks can and should play the role of trusted advisor. Implementing solutions like robo-advisors and next generation ATMs using artificial intelligence, banks must find new ways to engage with customers, build trust, and deliver actionable advice.

“Winning over your customers is primarily done on a personal level. This is why investing in areas that can truly impact your banking experience like technology and customer service are so important to building stronger relationships and loyalty,” said Art Barger of TrustID.

Personalization needs to happen across all channels. The customer experience provided through these channels needs to be consistent and seamless. Organizations need to provide the right solutions, at the right time, using the right communication channel to build trust.

Consumerized Banking Services

According to Digital Banking Report, The Power of Personalization in Banking, customers “want their primary financial institutions to look and act more like their non-financial partners in how they gather and use their personal and transaction data.” They expect their bank to keep track of where they stand financially and alert them to potential bumps in the road ahead.

Consumers also want their financial institution “to securely manage their finances, understand their goals and preferences, and proactively deliver the right offers and services to help them achieve financial well-being.” However, most financial institutions, large or small, are not prepared to provide individualized advice, offers and communications.

Alternative financial providers are seen as a threat to most banking organizations due to their ability to produce digital personalization, and banks are starting to find that personalization across all stages of the consumer journey will be a key differentiator for retaining customers.

More than half of all regional banks, community banks, and credit unions offer basic levels of personalization through their digital channels, such as mobile and website. Many plan to offer advanced services to leverage customer insights to deliver personalized service.

Pre-login Promotion

The primary opportunities to deliver post-login promotional messages come by way of push notifications and alerts. In addition to providing alerts to customers triggered by the usual transaction or balance threshold criteria, many banks now rely on post-login messaging to educate customers about relevant products and services and promote participation in loyalty programs.

Interstitial Messaging Opportunities

The space between pre- and post-login is being used by financial institutions to display interstitial messages—pop-up screens that appear after login but before customers continue with their transaction. An effective interstitial message balances effective selling with customer experience, usually causing only a minor interruption.

Interstitial messages often include product announcements, community news, and app housekeeping information. Current research shows that, “in-app banner ads don’t generate as much revenue as personalized ads. And, both formats are much less effective than an interstitial.”
Personalized Marketing
By tailoring product offerings to individual customers, banks can leverage existing data to expedite applications, reducing the opportunities for customers to shop around. Customers should ideally receive messages based on their transaction history, profile, and marketing preferences. And, many choose to control the timing and channel of marketing messages they receive, given the option.7

Selling within the mobile banking app reduces the inconvenience and friction encountered by customers through alternate channels, also reducing the number of customers that abandon the process before completion. While ad format and placement affect engagement, message relevancy is the primary factor in ad success.

Key to Retention and Growth
Through digital personalization, financial institutions can utilize customers’ personal and transaction data to understand where they stand financially and communicate to them at appropriate times customized guidance to improve the health of their finances.

Providing personalization across all stages of the consumer journey is key to retaining customers in an evolving marketplace. In addition, it’s a must for growing business through relevant new product or service offers.

Planning for a Personalization Program
Lessons Learned from Fintech
The digital age enables disruptive technologies. In banking, the rise of fintech companies with new apps and services is disintermediating traditional banking services. Most fintech banking apps focus on payments, loans, transfers, deposits, investments, and queries.

Customers have become highly accustomed to the convenience of online-enabled banking and digital payment options—managing their finances without visiting a financial institution. Convenience and ease of use are important factors in the adoption of fintech apps. In addition, fintechs are excelling at personalization, enabling customers to lead by providing them personalized financial advice and giving them better visibility into their financial transactions and goals.
Transformation Leadership and Expertise

Companies that conduct successful digital personalization initiatives typically have a CEO or CMO that evangelizes the benefits and lobbies to begin the effort with research, strategy, and planning sessions.

The CMO seeks technical and business buy-in from the CIO, operations, compliance, finance and accounting, and other middle- and back-office leaders. Support from the top is essential considering the risk vs. reward profile of the projects proposed. Typically, the budget resides with the CMO and falls under digital marketing.

Research from Altimeter Group shows that CMOs are much more likely to lead digital transformation efforts than CIOs.1 According to Brian Solis, principal analyst at the research and advisory firm, CIOs are more likely to defer to others, because their plates are already full.

“There’s an aspect of being in IT that is always looking in the past, or at least working in the past,” he says. On the other hand, CMOs “live and die by how successful they are in reaching new customers, driving sales and conversions.”

IT and marketing also have vastly different views of the future, he says. IT leaders need to keep their workforces productive and operations running smoothly, whereas marketers perpetually struggle to keep up with all the customer changes and trends they’re seeing on the horizon.

The challenge comes in assembling the necessary expertise to lead the effort and the resources necessary to make meaningful, timely progress. In addition, the learning curve of any organization tends to be slower in the early stages of personalization initiatives. Many seek external guidance and resources from vendors that have deep banking industry experience coupled with a proven track record in Big Data and Data Science technology.

Urgency to Transform

The stakes are high. Banks that delay risk lost revenue and market share. On the other hand, an attractive list of benefits awaits those that skillfully execute digital personalization initiatives, including:

- Elevated customer engagement
- Increased customer satisfaction and retention
- Improved cross-sell and up-sell results
- Reduced physical footprints/costs
- Increased revenues and profitability

Customers also stand to gain. When banks accelerate service delivery and expand product variety and customization through digital personalization, they have more tools and the convenience to more effectively manage their financial lives.

Achieving Digital Competence for Personalization

In today’s digital age, becoming a digitally-competent bank that is committed to personalizing the customer experience is no longer an option—it’s a necessity. NIIT Technologies’ digital expertise and technology can help banks improve their capabilities.

NIIT Technologies’ Digital Foresight advanced predictive analytics solution has capabilities that enable organizations to create data lakes to ingest, organize, enrich, and analyze the complete data pipeline and deliver useful insights based on customer behavior.
Customer information like demographics, lifestyle, behavior, interests, major life events (marriage, house, baby, retirement, and education), social, and internal transactional data fuse to create a 360-degree customer view for financial institutions.

To create a meaningful next best action for a customer, a complete picture of their needs, requirements, and planning horizon can be quickly assembled, understood, and matched to available options prior to communicating the recommended action. This holistic approach considers all available and meaningful information about the customer to drive better engagement, more revenue, and long-term loyalty.
Digital Experience and Integration

NIIT Technologies’ digital experience and integration capabilities have enabled banks to develop a multi-/omni-channel experience for their consumers. Newly empowered organizations provide customers with personalized service through new digital channels, and orchestrate a seamless, integrated, and consistent customer experience across all channels.

The NIIT Technologies’ personalized digital banking solution brings siloed components together in a unified platform. Thus, banks are enabled to deliver a personalized digital banking experience that exceeds customer expectations. Digital Foresight fuses structured and unstructured data to create a customer 360-degree view, applying data quality principles for data governance.

360-degree View of Customers Digital Foresight Insight Creation and Integration

Using Digital Foresight’s advanced analytics capabilities like predictive and prescriptive analytics, machine learning, and artificial intelligence, financial institutions develop effective strategies to:

1. Build loyalty, and increase trust and customer retention
2. Discover new ways to engage with customers
3. Deliver actionable advice to customers through recommendation engines
4. Proactively deliver offers for services at the correct time throughout a customer’s journey
5. Power robo-advisors to provide a more personalized and advisory relationship

Digital Foresight is NIIT Technologies’ system of insight creation and integration. It effectively enables financial institutions to proactively deliver offers for services at the correct time throughout the customer’s journey and discover new ways to engage with them.

Digital Experience and Integration

Consumers take a multi-device path to purchase

Source: Forbes, Consumers Take a Multi-Device Path To Purchase®
Advanced analytics capabilities leverage holistic customer information to create actionable insight and generate desired business outcomes. This increased awareness of customers enables important functionalities such as customer segmentation, sentiment analysis, next best action, and recommendation engines. System-generated insights and information integration capabilities then feed engagement channels to create the best possible digital banking experience.

### Digital Banking Experience

- AI Robo-Advisors
- Multi-/Omni-channel Interactions
- Content Marketing
- Delightful User Experience
- On-Demand Customer Service

### Advanced Analytics

- Customer Segmentation
- Sentiment Analytics
- Next Best Action
- Recommendation Engine
- Customer's Channel Journey

### Data Lake — Customer 360

- Data Ingestion
  - Structured & Unstructured
- Data Quality & Data Governance
- Data Organization & Data Enrichment
- Manage & Analyze Customer Information

### Systems of Record

- Financial, Transactional Data
- Loyalty & Customer Value
- Contract Data

### Customer Information

- Demographics & Household Information
- Customer Interest & Behavior
- Major Life Events

*Making the Right Offer to the Right Customer through the Right Channel at the Right Time*
The NIIT Technologies Thought Board: Delivering Personalized Digital Banking Experience

What are consumers looking for in their financial institution partner?
The financial partner must:

- Securely manage finances
- Understand customer goals and preferences
- Proactively deliver the right offers and services

What can banks and customers achieve with the help of digital channels?

<table>
<thead>
<tr>
<th>Banks receive</th>
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<tr>
<td>Pre- and post-login promotion engagements</td>
<td>Customized guidance</td>
</tr>
<tr>
<td>Interstitial messaging opportunities</td>
<td></td>
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</table>

What are the benefits of executing digital personalization initiatives?

- Elevated customer engagement
- Increased customer satisfaction and retention
- Improved cross-sell and up-sell results
- Reduced physical footprints/costs
- Increased revenues and profitability

What advanced analytics capabilities are used by NIIT Technologies' Digital Foresight solution?

- Text Analytics, NLP
- Algorithms
- Predictive & Prescriptive Analytics
- Machine Learning

How does Digital Foresight help financial institutions?

Digital Foresight helps:

- Build loyalty, increase trust and customer retention
- Discover new ways to engage with customers
- Deliver actionable advice to customers through recommendation engines
- Proactively deliver offers for services at the right time throughout a customer’s journey
- Power robo-advisors to provide a more personalized advisory relationship
The Right Digital Framework

A successful digital banking personalization effort results in continued customer engagement driven by uniform and consistent omni-channel interaction and well-defined user experience and journey-mapping processes.

NIIT Technologies’ digital personalization framework empowers financial institutions to build a platform that enables multiple components to work together. The solution provides contextual and relevant customer information to reach the right customer at the right time using the right marketing channel, leading to sustained revenue growth. Drawing upon predictive analytics capabilities to become a trusted advisor, banks and credit unions can improve customer engagement, resulting in greater loyalty and customer satisfaction.

References

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6Art Barger, TrustID, (February 26, 2015), Building trust through a better banking experience, [Article], Retrieved from https://www.trustid.com/building-trust-through-a-better-banking-experience/

