Driving Revenue Through Personalization

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Contents

Executive Summary

In today's digital age, customers expect personalized experiences and rewards from companies, particularly banks, which leverage the vast amount of customer data available. As a relationship bank, it is imperative that we demonstrate a deep understanding of our customers and their needs, delivering services that benefit them.

Personalization not only enhances the customer experience but also drives revenue by increasing the likelihood of customers purchasing products or services. To this end, the proposed project aims to establish a comprehensive personalization strategy and infrastructure, including investments in technology to develop and deliver insights to customers.

The project represents a significant financial opportunity, with a total investment of $889,000 and a projected two-year payback period, along with an internal rate of return (IRR) of 56%. These figures are based on conservative estimates of customer adoption and net interest income opportunities.

The proposed period for the costs included spans about 4 years, roughly based on the implementation timeline (which is about a year) and then a 3-year vendor contract.

The long-term objective is to establish a center of excellence in personalization. However, the project will be rolled out in phases, beginning with a minimum viable product (MVP) approach. The key components of the project include an insights model and multi-channel delivery mechanisms to reach customers, encompassing digital, human interactions, and outreach efforts.

We recommend investing in a vendor for the insights model, focusing the MVP on driving increased deposits and fee income through product recommendations. This approach allows us to leverage the scale and expertise of a vendor, while also investing in internal tools like Salesforce for customer delivery mechanisms.

By implementing a personalized strategy, we aim to not only increase revenue but also enhance customer loyalty and engagement. Through this project, we are confident that we can deliver a superior banking experience that meets the evolving needs of our customers.

Company History and Background

Zions Bancorporation, N.A. is a financial services company headquartered in Salt Lake City, Utah, with an annual net revenue of $3.2 billion in 2022, and assets of approximately $90 billion at year end. The bank serves over one million customers through 416 branches as well as digital, phone and ATM channels. Zions Bancorporation operates an affiliate banking model, with local management teams and distinct brands in the western United States, including Utah, Idaho, Arizona, Nevada, California, Colorado, and Texas (see footprint map in the appendix). These brands are referred to internally as "affiliates". Affiliate leadership teams are focused on sales and face-to-face customer interactions, including marketing, community investment and involvement, retail branches, and facilities. Affiliates set pricing locally and have authority to approve loans and grant pricing exceptions.

The company was founded in Utah in 1873. Zions grew for many years through both natural expansion and small acquisitions in the Utah and Idaho markets. In 1985, Zions acquired Nevada State Bank. Because commitment to serving the local community is a guiding principle for Zions, the decision was made to retain the local leadership, brand, and bank charter of Nevada State Bank, while gaining efficiencies by consolidating back-office functions. Over the next 20 years, several additional acquisitions occurred, expanding the Zions footprint across the West, and in each new state the local bank leadership, brand, and bank charter was retained. In 2015 the various charters were consolidated under a single national bank charter to simplify bank operations. Finally, in 2017, the parent holding company and the banking subsidiary were merged into a single company – which still goes to market under the eight distinct bank brands.

Many functions, including Finance, Human Resources, Operations, Technology, Product, Strategy, and Risk, are managed centrally. While this centralization has delivered significant lift for the company on efficiency and scale, it has not been without growing pains. Following charter consolidation in 2015, the door was opened to many additional consolidation opportunities. The bank's new regulator, the OCC, expressed their expectations that the company quickly mature technology, processes, and policies to meet expectations for the increased size of the bank. That work has been a key focus over the last 7 years, and significant progress has been made.

Over the last decade Zions has been on a technology modernization journey. The most significant investment in this space has been a core banking system replacement and modernization project. In 2013, Zions selected Tata Consultancy Services' (TCS) BaNCS as the new system. This core solution was selected to replace the Consumer Lending servicing platform, the Commercial Lending servicing platform, and the Deposits core. The project has been implemented in phases, and is currently in its final phase, Deposits, with one affiliate bank brand already in the new platform, and the remaining brands slated to migrate in 2024.

The Core replacement project has been lengthy and resource intensive and has put pressure on many other priorities in the bank. Completion of the project will open opportunity to invest in many other places. Significant investment is underway in the technology space, including upgrades that improve the technology architecture, update/replace aging platforms, and implementation of a Data as a Service model.

Strategic Focus Areas

Zions operates a traditional banking business model with a focus on providing comprehensive financial services to individuals, businesses, and institutions. Its services include commercial banking, retail banking, wealth management, and capital markets activities. The bank serves a diverse customer base, ranging from small businesses to large corporations.

Zions' focus has been on maintaining a strong local presence while diversifying its revenue streams. Zions employs a relationship-banking model, aiming to provide tailored financial solutions to its clients and build long-lasting relationships. Our key differentiator is our bankers and the work they do to support clients. Our bankers serve customers through a combination of banking expertise, local market knowledge, and the quality service.

The bank has declared 4 areas of strategic focus: Small Business, Commercial, Affluent, and Capital Markets (see details in appendix).

Although the specific initiatives differ for each area, key goals are repeated across the board, including investments in building the capability of our bankers, developing new and innovative products meant to meet the specific needs of the segment, enhancing, and increasing the digital experience, and improving customer analytics.

Although Zions has strong performance across the areas of strategic focus, the company performs particularly well in the Small Business and Commercial categories. The company is recognized year after as a Greenwich Excellence Award winner and is one of only 4 banks that has averaged 15 or more awards per year since their inception in 2009.

Zions places a significant emphasis on risk management and maintaining a conservative approach to its operations. This approach has allowed Zions to maintain very high credit quality through a range of economic conditions. Despite this caution, the bank is focused on supporting our communities, and especially small businesses, through lending. The bank continues to be a top SBA lender in most of our markets, and during the Paycheck Protection Program, or "PPP", in 2020, Zions was the ninth largest lender in the nation, providing over $7 billion in loans to over 47,000 customers. Additionally, notable effort is placed on assisting traditionally underserved communities through our Small Business Diversity Banking program.

Financial Performance

Zions has shown resilience in the face of economic challenges, including the COVID-19 pandemic. The bank had reported steady financial performance, with healthy capital and liquidity ratios. For 2022, Zions produced a net income of $878 million. While this was down from the previous year, the 2021 number had a large negative provision for credit losses, resulting from an overestimation of possible credit losses during the pandemic crisis in 2020. Loan growth was strong in 2022 but has slowed in 2023 as rates continued to rise and a recession seemed increasingly likely.

Deposits grew very significantly during the pandemic, but that trend shifted during the second half of 2022 as rising rates had customers turning from loans to using the excess liquidity in their accounts. As a result, deposit levels were down 13% YoY as of 12/31/2022.

The failure of Silicon Valley Bank (SVB), Signature Bank, and First Republic Bank in early 2023 put significant pressure on Zions. Like every other bank in the country, the weeks following the SVB and Signature collapse were spent closely monitoring liquidity and assuring customers that Zions was secure. Additional pressure was applied as Zions was called out in the media, along with several other regional banks, as being particularly high risk due to concentration concerns as well as significant exposure in commercial real estate. In actuality, the deposit base as Zions is granular, and after a decline in deposit levels at the end of 1Q2023, a solid rebound of $2 billion, or 3.2%, occurred during 2Q2023.

Fee income has been an area of increased focus over the last few years, and was up 7% YoY in 2022, despite fee income decreases in areas like retail banking, where the response to regulatory and customer expectations was to lower or eliminate fees, most notably in the Overdraft and Non-Sufficient Funds space.

Marketplace & Competition

The recent tumult in the banking industry, coupled with the rising rate environment, have heightened the bank's focus on gathering and retaining deposits. The management team believes that one key to this is providing an excellent customer experience across channels.

Zions Bancorporation, as a regional bank, competes with both national and regional financial institutions. Market share varies across the footprint. In some markets (like Zions Bank in Utah), it holds a significant share, while in others (like Vectra Bank in Colorado) are positioned as a community bank and hold a very small share of the market.

Zions Bancorporation faces competition from a mix of national and regional banks, including Wells Fargo, JPMorgan Chase, Bank of America, US Bank, and regional players like PNC, Western Alliance, Bank of the West (now BMO) and KeyCorp. In addition to other banks, credit unions are a significant competitor of Zions, especially in the Utah and Idaho markets. This wide range of close competitors applies pressure on both ends. The large national banks have substantially more resources, allowing them to deploy large numbers of people to implement cutting edge technologies. The relatively smaller size of credit unions makes them nimble in rolling out new products and experiences for their members. Coupled with the relative financial advantages they have due to lack of a tax burden or community reinvestment requirements; these make very formidable competitors. Finally, fintechs are also a growing competitor group, even though they do not have a physical presence in our markets. Their ability to offer similar services to the bank, often with fewer regulatory constraints, position them to be very innovative in meeting customer needs and expectations. This innovation can often come with hidden costs and risks to customers that often go unrecognized until something goes wrong, but the initial offering and promised experience is a source of customer attrition.

It is worth noting that competition and comparison does not only come from other banks and financial companies. Disintermediation now has funds flowing not only to short term investments, but also to places like store wallets (e.g., the Starbucks app), where rich rewards structures entice customers to park funds outside the bank. Customer expectations are informed by experiences they have in all industries. Companies like Amazon and Netflix set the bar on personalized recommendation for customers, both within their app and through proactive outreach like emails. Customers now understand that most companies, especially banks, know a lot about them, and expect that that knowledge is used to benefit them, either through an upgraded, personalized experience or through rewards that recognize the lifetime value of the relationship.

Project Overview

It has long been understood that banks have a tremendous amount of data on their customers. It's also widely recognized that until recently, most banks were not taking advantage of said data, especially when compared to technology companies. Both business and consumer customers know that banks have a lot of information about them, and in many cases have an expectation that such data is used in a way that benefits the customer.

The project will establish a strategy and infrastructure on personalization, including investments in the appropriate technology to develop and deliver insights to customers. Investing in personalization will allow the bank to better understand and respond to customer needs in a timely way, and in the channel that the customer prefers. Personalization can drive revenue both directly, through the sales of new products/services or increased use of existing services, and indirectly, through an improved customer experience, increasing customer loyalty and engagement and improving retention. To achieve scale that can serve the varied lines of business and customer segments across the enterprise, the long-term objective of the project would be to establish a Personalization Center of Excellence. A Center of Excellence (CoE) model will ensure that the right technology, processes, governance, and go-to-market strategies are in place to drive revenue through personalization and insights.

Within the Bancorporation to-date, individual models to identify personalized customer insights have been built. These model outputs have been implemented with limited discipline on tracking outcomes, meaning the bank lacked the details needed to learn from and refine the process. The lack of repeatable processes and tools also means that the cost of developing and implementing each individual model is high and includes a lengthy roll out timeline. Finally, the teams that propose and/or build insights are often removed from the channel teams that will need to be engaged to deliver the insights to customers, creating delays in delivery of insights to customers.

The project will explore investments which are necessary to create and deliver personalized insights to customers at scale. Due to the projected significant investment, a phased roll out will be defined, starting with an MVP – both in terms of use cases and technology investment.

The pilot phase will focus on insights that drive revenue. Given the current realities of banking and our internal company goals, the pilot focus will be on insights that help increase deposits and fee income. Because the granular deposit base in our retail segments, both consumer and small business, are core to overall bank stability, the pilot will focus on insights for the small business and consumer segments. Funding will need to be sought for a pilot phase, which will need to include the following pieces:

1) Insights Model
    a. Including decision to build the model(s) internally or partner with a vendor that specializes in this space. It is currently believed that entering a contract with an external partner would be the preferred method. A vendor will have more resources dedicated to updating models and developing new ones, and the outputs can be fine-tuned and trained based on data from all their clients.
    b. Requires a strategy to store insights data in our internal data space so that the insights can be passed to other channels.

c. Requires a strategy to collect data about which customers view insights and tracks subsequent changes to the customer relationship.

2) Delivery of Insight to Customer

a. Multi-channel delivery approach

i. Digital – email marketing. Note: there is currently a plan underway to improve the integrations between the marketing software and the customer data details, and it is assumed that this project will be able to take advantage of that completed work.

ii. Digital – online/mobile banking. Note: preference will likely be given to insights vendors that are preferred partners of our digital banking platform vendor, D3. This should minimize the development path within the digital banking environment, but it is anticipated that some development work, both on data upload and activity capture, as well as user interface/screens will be needed.

iii. In person or phone – banker outreach. The internal platform for banker interactions is Salesforce. Insights that the bankers will present to customers will be loaded into Salesforce, and they will have the ability to use the Lead or Case functionality within the platform to ensure the opportunity is fulfilled.

iv. Long term: In person – in branch during other interactions

v. Long term: digital – public website experience

vi. Long term: phone – contact center

vii. Long term: direct mail

3) Reporting

Strategic Alignment & Project Benefits

Investing in tools and processes around personalization is linked to key strategic priorities for the company. First, as a relationship bank, we pride ourselves on deeply understanding the needs of our customers and partnering with them to build their financial future. By leveraging technology to develop insights on the individual customer level, we will be able to expand the population of customers that get recommendations that are specific to them. Currently, most personalized recommendations are coming from research work that a banker is performing on a customer account. Additionally, investment in tools that enable direct digital delivery to customers also extends reach in a couple of ways. First, it allows for timely delivery of insights to a far larger number of customers than could be reached through an in-person visit or phone call, and second, it responds to the desire of many customers to interact with the bank digitally only. This second point is important because in today's digital age, many people strongly prefer to stick to digital channels for their interactions, or typically do not have the ability to connect with a banker during business hours.

In addition to supporting the key differentiator of relationship banking, the company has recently updated the list of segments that we consider to be a strategic priority, to include the mass consumer segment. In our current customer base, mass consumer is the largest in volume by a significant margin. To meaningfully increase our penetration with consumer customers, we will need tools that easily scale personalized outreach without driving incremental work as the volume grows.

Another important way that personalization aligns to our strategy is with its ability to make relevant product and service recommendations to customers that will increase their likelihood to purchase. Key metrics for the lines of business include goals around reducing the number of single product customers as well as increasing fee income. This investment will build out an entirely new channel to make product suggestions and deliver offers to customers.

It's important to note that Zions continues to believe that our bankers and our local community presence is a key differentiator. Although this project will be primarily focused on delivery through digital means, the work is meant to be complimentary to the banker-driven in person work. To create a true strategic advantage with this pairing of the digital and in person, the project will have some intentional connection points built in to support a smooth experience for a customer regardless of the channel they are interacting in. For example, the insights that are presented to customers will need to be visible to bankers, so that those details can be accounted for when having a conversation with a customer. One of these integrations can be supported through the Digital Marketing Distribution and Orchestration project, which is already on the roadmap. Some of those capabilities are now being delivered, namely improved digital marketing capabilities. As a part of that, the emails that are sent out to clients will be made visible to bankers via Salesforce, giving the banker a view into the digital marketing collateral received by the customer, which especially important if the customer reaches out to the banker to learn more. An extension of that project would be the need to make visible any interactions that are had with the customer via digital banking. Additional research will need to be done to determine how the digital banking insights should be woven into the Salesforce experience.

In addition to rounding out the view of digital insights or offers served up to the customer, it serves to reason that some insights are best delivered directly from a banker. This can be because the insight is oriented toward a product or service that tends to be complex and requires a knowledgeable (or even specially licensed) banker to explain, or because the customer relationship overall is complex and nuanced. The reason for delivering some insights through an in-person interaction can be as simple as the need to have relevant content for an annual account review or calling campaign. Putting these insights in the hands of our bankers, coupled with strong talking points and materials that the customer can keep can drive significant efficiency for bankers. Currently, when bankers need to call a customer, they must spend time researching the customer relationship to decide what is important to share and what facts, behaviors, or patterns about the relationship support their conclusion. The in-person insights should include not only the insight but point to the supporting detail. One important note about this requirement is that special consideration must be taken when deciding on the modeling technique or vendor used, as some methodologies lend themselves well to linking the inputs to the outputs, while other methods are much more of a black box.

While the initial project proposal seeks to implement a couple of insight models specifically on driving deposits and making product recommendations, this work has the potential to extend to many more types of insights models. There are many opportunities to create value for customers through insights that are targeted at improving their financial health through suggestions to save more or pay off debt when surplus funds are recognized, provide reminders about potential missed debt or utility payments when normal patterns are disrupted, or help manage daily spending through alerts on subscriptions, duplicate transactions, or spend at top merchants. The financial health and management experience could further be enhanced through a pairing with a Personal Financial Management (PFM) tool that provides functionality to customer on budgeting and goal setting and tracking.

For business customers, in addition to much of what was outlined above, trends around spending by expense category or specific merchant could be paired with benchmarking on average costs to help small businesses improve their savvy in navigating conversations with their vendors.

To go even further, as customers start to see those insights and appreciate the value they create, there is a potential to invite the customer to share more of their financial data with the bank through an aggregator type experience, which will improve the relevance of insights and could result in better overall relationship benefit offers for the customer.

My role in the project will be the business executive that is sponsoring and driving the project. This will include vetting the possible technology options that support both the modeled insights and the customer delivery. Additionally, my role will be to define and get approval for the resources for the CoE team, and to create a methodology for projects to be submitted, prioritized, and delivered by the CoE teams. Resources that report directly to me would be seen as the business owner, allowing me to oversee the project in a significant amount of detail while not being responsible for the delivery of day-to-day work items.

Opportunity Creation and Cost

For the most part, doing this work does not close the door on other options, at least not permanently. However, funds and other resources available for investment are limited, and proceeding with this project will mean that other priorities across the bank will not be worked on.

Related to this, because the current plan relies heavily on email marketing as a delivery channel, that will mean that the channel could be largely unavailable to traditional email marketing campaigns, which could put pressure on internal sales and growth goals. If the need to decrease the amount of traditional marketing done through the email channel is not reduced, there is a risk that customers will be overwhelmed or unhappy with the increased number of emails and react by opting out of email marketing all together.

Additionally, if contracts are signed with vendors on this project, that will mean that the bank is not able to pivot away from those choices until the contract terms have expired. Some of that risk can be mitigated through negotiating for terms that have a pilot term, or tie payment to outcomes.

Implementation of a vendor that is skilled in using data to generate insights creates a significant amount of future opportunity in the insights space. In addition to the long-term insight delivery channels listed above, the advanced analytics opens an opportunity for the bank to use the details to reimagine and update our banking rewards programs. Currently, rewards are given based on only activity within a certain product category, but this type of modeling, which considers the entire customer relationship, can recognize opportunities across product categories, and the overall rewards ecosystem can be used as a lever to entice customers to deepen their relationship with the bank.

Process Change and Improvement

While the initial phase of the project is scoped to be a pilot the overarching goal in this space would be to set up a Center of Excellence. The Center of Excellence model requires that policies and procedures are set up to govern and monitor the work pushed out, and best practices are compiled, with investments being made to simplify the delivery of future work. Because the project has significant impact to customers, the work will need to be thoroughly reviewed by the various risk partners of the bank in the New Initiative Review (NIR) process. However, each new model or campaign running through that review process is not sustainable, so a standalone risk review and approval process for this work will need to be stood up. An ideal solution would be to identify the risk partners that should normally be involved in this type of work (versus the NIR process which includes every risk partner in the bank due to the varied nature of the projects that are reviewed), and that those risk partners that are identified as relevant can gain some familiarity with model insights and our delivery channels, which should simplify and expedite future reviews.

As a relationship bank, it is of utmost importance that our customers feel that we know them and their partner in financial banking matters. Our bankers work incredibly hard to make this promise come to life for our customers, but this has become increasingly difficult to deliver on as new channels for service and sales interactions have emerged. As currently planned, this project will make significant strides in creating a single view of customer interactions. This will be accomplished through creation of data feeds from the insights tool to Salesforce. By establishing the feeds, new insights models should be able to come in and have those insights models ported into Salesforce by only turning on the data feeds, not building out the process or user interface screens.

Implementation Schedule

The planned work is expected to take about 11 months to complete. See an overview timeline in the appendix. The plan that is outlined assumes that the model insights will come from an external vendor as opposed to being built by the internal data science resources. This is due to a working assumption, ahead of a robust vendor review, that the funding request will recommend going the vendor route. While task duration does account for elapsed time for the task to be completed (i.e., assumes at least some of the resource time will be dedicated to other duties), the planned timeline assumes that all groups will be available to work on their slated tasks as soon as the required predecessors are complete. While every effort will be made to put proposed work into the appropriate team backlogs as early as possible, delays from other projects will likely create delays on when certain tasks can be started. This plan also assumes that completed development work can be moved into production as soon as the appropriate testing and approvals are received, as opposed to the standard internal practice of planned periodic releases. That impact is projected to be relatively minimal because most systems have at least a monthly release cadence.

As currently planned, the project does not require that all the insight delivery channels are ready before one can go live. The plan does require that interface for Bankers to see the insights information that is going out via any channel is ready before any of them go live, which will help to support any questions that come in from customers regardless of how the insight was received.

A detailed implementation plan can be found in the Appendix.

Financial Investment

In pursuing a robust personalization and insights project for the Bancorporation it is important to delineate the investment required, comprising a blend of internal and external expenses. The proposed investment plan spans over a three-year period, encompassing vendor related costs and internal expenditures.

For the vendor engagement, a three-year contract is planned, wherein the platform and user fees will commence post the 10-month planned implementation phase. Vendor costs constitute a significant portion of the investment. Vendor costs include an annual platform fee of $375,000, along with a per-enrolled customer fee, which is estimated to be $300,000 annually. The per-enrolled customer fee is $1.00/year and is based on the number of customers that enrolled in digital banking. Furthermore, an additional $75,000 is allocated for implementation and professional services during the implementation phase.

In parallel, internal costs are anticipated to amount to roughly $214,000, including various essential roles such as project manager, business analyst, and personnel from diverse teams such as the Interfaces, Digital Banking and Salesforce teams. From these teams it is expected that engagement will be required from application owners, developers, and quality assurance. It's worth noting that certain vital contributors to the project, including business owners from

Retail Banking, Compliance, Learning & Development, and Model Risk Management, are not accounted for in the budget as they do not charge for their involvement.

The year one investment is projected to be $889,000, with ongoing costs of $675,000 in years 2 and 3. When evaluating the revenue opportunity for this investment, the period is closer to 4 years because the revenue realization will occur after the project is implemented, and the annual platform and user fees will apply for 10 additional months toward the end of year 3.

Revenue and Expense Details

Below are the details of the estimated expenses and revenues for this project. I have used four (4) years to project the investment for this project, with the reasoning for this decision explained in the section above. The details of each year are explained below, with the revenue overall revenue forecasts and assumptions in tables at the end of this section.

Year 1

Expenses

- Vendor Costs: These were derived from discussions had with vendors that have personalization SaaS offerings.
    - Implementation Fee Professional Services: $75,000.
        - This is to provide support to our internal teams to get all the data flows and integrate with our digital banking environment.
    - Annual platform fee: $375,000.
    - Per Enrolled Customer Fee: $300,000.
        - Estimate is based on estimates of the number of customers actively enrolled in digital banking.

- Note: Both the annual platform and per enrolled customer fees will not be paid until the project is ready to go live, toward the end of Year 1. This is important because it means the "Year 1" of the vendor contract will start in Q4, so the Year 4 estimates do not include vendor costs in this financial forecast.
- Internal Labor: $214,000.
  - This is based on vendor and internal conversations and estimates effort and uses standard internal labor rates for each relevant resource type.

Revenues

As mentioned earlier, the initial use case is going to be centered around deposit and fee income growth. Multiple subject matter experts in banking personalization have shared that there is significant lift to be captured from insights to consumers about spending and saving habits. Existing customers engaged with savings insights increase their savings balance by 14%. Additionally, engagement with savings insights results in customers opening new savings accounts. The revenue from both use cases includes incremental net interest income, and the new savings accounts also include fee income. For all below revenue forecasts, please note that the estimates are currently centered around digital banking engagement being the keystone to customer behavior, with e-mail marketing and call outreach being seen as accelerators for that behavior.

- Existing Customer Savings Balance Growth: ~ $113,000.
  - This is a small amount because the amount of time this will be implemented in Year 1 is very limited. This number was calculated by first taking the number of digital banking consumer customers with savings or money market accounts (~ 37,000), and

then applying an assumption of how many accounts will become engaged in the personalization platform. Vendor estimates assert that the number of engaged customers is 20% of overall digital customers. However, I think that a ramp up period is required and have used an engagement percentage of 5% for Year 1.
    - From there, I calculated 14% incremental balance growth on those accounts using an average savings/money market account balance of $25,000.
    - From there I applied a net interest income factor of 1.75%. This is based on an internal savings/money market NII rate for Q4 2023, which accounts for internal funds transfer pricing less interest expense (using our current market rates).
- New Account Savings Balance Growth and Fee Income: $0.00.
    - Given the limited amount of time that this platform will be in production during Year 1, no revenue was forecast for this category.

Year 2

Expenses

- Vendor Costs: $675,000.
    - The only expenses for this year are the ongoing annual platform and per enrolled customer fees. Those costs are projected to be the same for each year of the three years of the contract.

Internal labor expense for ongoing technology needs will be handled by existing teams who handle many systems and be allocated to the business as production support costs. Therefore, no additional expenses have been allocated here as it anticipated that this application will be supported by existing resources.

Revenues

The revenue types are the same as Year 1, with some updated assumptions around adoption rates which are outlined below:

- Existing Customer Savings Balance Growth: ~ $261,000.
  - For this calculation, the percentage of customers (that also have a SAV/MMA account) has increased from 5% to 11%.
  - The average account balance and net interest income factor assumptions remain the same.
- New Account Savings Balance Growth and Fee Income
  - Fee Income: ~$32,800.
    - Vendors in this space assert that savings/money market account opening rates will rise an additional 3% with this type of personalization. Since this is the first full year with personalization, I used an incremental growth rate of 1%. This was calculated by taking our current rate of account opening for this product category (4% of total accounts) and multiplying by 1%. Therefore, we should expect ~4,100 new accounts opened.
    - From there, the number of new accounts was multiplied by a fee income number of $8.00/account. This is based on internal fee income data for this product category.
  - Savings Balance Growth Income: ~$719,000.
    - This is based on the number of new accounts calculated above (~4,100) and then assumes an average account balance of $10,000. This per account

balance number is lower than the average account balance for the portfolio overall for a couple of key reasons: first, this number needs to represent a blend of accounts opened throughout the year, so some accounts opened toward the end of the year will likely have a smaller amount in them. Additionally, because the personalization aims to get many customers to change their spending and savings habits it is anticipated that many customers will be building up their savings slowly, while others will bring sums to our bank from other banks so they can get more insights on their full financial picture.

        - From there, net interest income (NII) amount is calculated using the 1.8% factor used in Year 1.

Year 3

Expenses

- Ongoing annual platform and per enrolled customer fees: $675,000

Revenues

The revenue categories are the same for Year 3, with a few updated assumptions around adoption and growth rates.

- Existing Customer Savings Balance Growth: ~$407,000.
    - Assumptions:
        - Platform Engaged Customer base: 16%, which, based on a slightly increased pool of digitally engaged customers of 38,800 (based on overall normal savings account growth), results in ~6,650 accounts.

        - Again, the average account balance and net interest income factors remain as the same as Year 2.

- New Account Savings Balance Growth and Fee Income
    - Fee income: $69,000.
        - For this year, the incremental new account growth rate is now 2%. Incremental new accounts were calculated based on overall growth in Year 2 (which was 5%). So, 2% of 431,000 Savings/Money Market accounts equals ~8,600 new accounts. Per account fee income of $8.00/year.
    - Savings balance growth income: $1,509,000.
        - The same methodology as year two was applied here, using ~8,600 accounts instead. Average account balance of $10,000 since these are newer accounts and the 1.8% NII factor.

Year 4

Expenses

- No additional expenses were added for this year, since most of the year will be covered by the existing contract, and the renegotiated rates are unknown.

Revenues

- Existing Customer Savings Balance Growth: ~$544,000.
    - This assumes a platform engage customer base at 20%, which, based on slightly increased pool of digitally engaged customers of 41,500, results in approximately 8,900 accounts.
    - Again, the average account balance and net interest income factors remain as the same as in Year 2.

- New Account Savings Balance Growth and Fee Income
    - fee income: $73,800.
        - This year uses the same assumptions as Year 3.
            - Incremental New Account Growth Rate: 2%.
            - Average of $5 per year in fee income.
- Savings balance growth income: $1,615,000.
    - Same methodology as year two was applied here, using 9,200 accounts instead.
    - Average account balance of $10,000 and 1.8% and NII factor.

Revenue Forecast and Assumptions

Revenue Forecasts

		Current	Year 1	Year 2	Year 3	Year 4	Total
1	Number of Digital Users	300,000	300,000	309,000	318,270	327,818	
2	Total Savings Accounts	395,000	410,800	431,340	461,534	493,841	
3	# of Digital Customers with SAV or MMA	35,550	36,972	38,821	41,538	44,446	
4	# of Customers Engaged		15,000	33,990	50,923	65,564	
5	# of Digital SAV/MMA Customers Engaged		1,849	4,270	6,646	8,889	
6	SAV/MMA New Account Openings	3,950	15,800	20,540	30,194	32,307	
7	Incremental New Accounts Opened		0	4,108	8,627	9,231	
8	**Incremental Fee Income (New Accounts)**		**$0**	**$32,864**	**$69,014**	**$73,845**	**$175,724**
9	Incremental Balances (New Accounts)		$0	$41,080,000	$86,268,000	$92,306,760	
10	**Incremental NII (New Accounts)**		**$0**	**$718,900**	**$1,509,690**	**$1,615,368**	**$3,843,958**
11	Average Balance Per Account	$25,000					
12	Incremental Balance Growth (Existing Customers)		$6,470,100	$14,945,931	$23,261,304	$31,111,993	
13	**Net Interest Income Lift (Existing Customers)**		**$113,227**	**$261,554**	**$407,073**	**$544,460**	**$1,326,313**
14	**Total NII**		**$113,227**	**$980,454**	**$1,916,763**	**$2,159,828**	**$5,170,272**
15	**Total Fee Income**		**$0**	**$32,864**	**$69,014**	**$73,845**	**$175,724**
16	**Income Totals**		**$113,227**	**$1,013,318**	**$1,985,777**	**$2,233,674**	**$5,345,995**

Assumption Details

		Current	Year 1	Year 2	Year 3	Year 4
17	Net Interest Income Factor		1.75%	1.75%	1.75%	1.75%
18	Per Account Fee Income (SAV/MMA)		$8.00	$8.00	$8.00	$8.00
19	New Account Growth Rate (of total SAV/MMA)	4%	4%	5%	7%	7%
20	Incremental Growth (of total SAV/MMA		0%	1%	2%	2%
21	Digital Adoption Growth Rate		5%	11%	16%	20%
22	Average Savings Balance of New Accounts		$ 10,000	$ 10,000	$ 10,000	$ 10,000

Investment Risks

In assessing the risks associated with this investment in personalization and insights within the banking sector, it's crucial to recognize potential challenges that could impact the envisioned outcomes:

Customer adoption rates:

One significant risk involves the uncertain adoption rate of the platform by customers. If the projected adoption fails to materialize as anticipated the estimated revenues may fall considerably short of expectations however, efforts have been made to temper this risk by adopting A conservative approach to platform adoption. While vendor provided estimates were available opting for a slow burn adoption strategy allows for a more cautious and realistic anticipation of customer uptake.

Interest rate and fee income assumptions:

Shifting interest rates and fee income assumptions pose another risk. Should there be significant variations in interest rate or fee income compared to the assumed levels the forecasted net interest income could be impacted. The model has considered the current high interest net income: however, if interest rates decrease this may lead to compressed net interest income. Conversely an improving economy might lead to a downward shift in fee income high higher savings account balances could reduce monthly maintenance fee income while better economic conditions might decrease overdraft fee collections.

If any of the above were to occur, particularly in tandem, the impact to the projected revenues would be significant. For example, if the Net Interest Income factor were to decrease to 0.85%, along with per account fee income to $5.00, Instead of revenue forecasts of over $5,000,000 for the projected period, and much slower digital engagement (maxed out at 11%) and new account rates (incremental new growth at 0.5% of total Savings accounts), the overall revenue forecast could decline significantly, potentially meaning that even the Year 1 costs of the project would not be paid back. However, it is unlikely that worst case plays out in every assumption, and the bank will have the freedom to implement other use cases to drive revenue in ways that are more aligned with customer sentiment and market conditions.

It is also possible that engagement could be higher overall and/or accelerate more quickly than projected, which would mean significant additional revenue. Again, because there are so many assumptions in this forecast it is hard to come up with a true best-case scenario, but with an increase NII, a new account savings balance at $15,000, overall digital engagement maxing out at 25%, and a new account growth rate maxing out at 3% during the period, revenues could be nearly 3x what is currently projected.

Implementation and labor cost estimates:

There is a potential risk that the initial estimates for implementing the project are underestimated. If the actual costs or time required for implementations or passes the projections, it could result in significantly higher internal labor costs. Factors unforeseen during the planning stage might emerge, necessitating increased resources or prolonged development cycles, impacting both the timeline and costs associated with the project additionally, this could increase the amount of time until the projected revenues can be realized.

Addressing these risks requires proactive measures including continuous monitoring of customer engagement staying updated on economic trends to refine assumptions and maintaining a flexible approach to resource allocation throughout the implementation phase. Additionally, this forecast assumes revenues from a single use case, which is not the long-term plan for this personalization platform. The business will have flexibility to continue to implement new use cases as its sea fits and as economic conditions change. It is anticipated that additional use cases will be implemented in years 2, 3, and 4. These anticipated use cases will expand beyond only the savings and money market product categories and include other types of initiatives. Anticipated product categories for additional use cases include credit card, checking account, and wealth and investing services. Finally, it is worth noting that there are other less tangible benefits that are not accounted for in the financial projections. one key example is vendor estimates around increased engagement and primacy of customers. This should lead to improved retention of the overall deposit portfolio.

Investment Recommendation

The investment in the personalization and insights projects stands as a prudent decision for Zions, warranting approval due to several compelling reasons derived from the project details and industry trends.

Firstly, the project's total investment of $889,000 with a two-year payback and an internal rate of return (IRR) of 56% signifies a robust financial case. The revenue estimates are based on conservative assumptions not relying on the participation of all or most customers. Realistically, customer adoption of the personalization platform will take time, and even at peak adoption, it's acknowledged that not all customers will actively engage. This mitigates the pressure to achieve an optimal scenario for reaching the projected returns outlined in the business case.

Moreover, the expense assumptions have been calculated conservatively, incorporating a 20% labor contingency based on industry best practices and project management. This project this provides a cushion against unexpected costs strengthening the financial viability of the project.

Crucially, the banking industry is swiftly evolving toward personalization and insights offerings. Customer expectations now demand these features to perceive banks as genuine partners. As a relationship-driven bank, meeting and surpassing these expectations is paramount. Implementing a personalization platform not only addresses current customer needs but also serves as a foundation for future personal and personalization endeavors. This lays the groundwork for potential revenue generation, improved customer retention, and even acquisition opportunities, positioning our bank competitively and involving landscape.

In essence, this investment not only promises favorable financial returns but also aligns with industry trends and customer expectations, ensuring our bank remains competitive and continues to deliver value added services that resonate with our customers evolving needs thus I recommend approving this investment in the personalization and insights project.

Non-Financial Impacts

Implementing a personalization and insights solution within the bank comes with several logistical and organizational hurdles that require careful consideration and strategic management. One significant challenge is the allocation of resources, particularly within the data and digital banking teams. Multiple priorities coming to these delivery teams from various departments often make it challenging to secure dedicated time and attention from internal teams. Convincing the teams to prioritize this initiative over their existing roadmaps of enhancements and fixes might be met with resistance requiring a compelling case for prioritization.

Additionally, defining and gaining consensus on the metrics for measuring success poses another obstacle. Digital experiences in banking often involve multi touch point interactions with customers, making it crucial to establish realistic expectations about the success indicators. Educating stakeholders about nuanced metrics that signify progress even if immediate purchases aren't evident is vital to manage expectations and ensure sustained support for the initiative.

The relationship bank model demands seamless visibility and integration across channels. Ensuring the recommendations made within the digital platform are accessible and actionable for bankers and contact center agents is essential for delivering a consistent and excellent client experience. Historically, project leaders have managed budget or timeline concerns by cutting out the important step of adding cross-channel visibility. Bridging this visibility gap between channels requires effective communication and training to empower staff with necessary insights and tools to act on recommendations.

Resistance to change and a lack of confidence in technology presents substantial hurdles given that some senior leaders may be less familiar with technology, addressing their concerns and demonstrating the value of the solution in enhancing, not replacing, human expertise becomes imperative. Communicating the system's role in augmenting decision making rather than replacing it is crucial in gaining buy in and alleviating concerns about job displacement or bad recommendations to customers.

Overcoming these challenges necessitates a well-structured change management strategy that emphasizes collaboration, education, and transparent communications across all levels of the organization. Emphasizing the symbiotic relationship between technology and human expertise, setting realistic success metrics, and fostering cross-departmental cooperation will be instrumental in navigating the logistical and organizational hurdles of implementing the project.

To effectively overcome the outlined hurdles in implementing the personalization solution within the bank corporation, a comprehensive plan needs to be established, emphasizing key strategies to mitigate risks and drive successful adoption.

- **Senior leadership alignment and buy-in**: Start by securing buy in from senior executive leadership by showcasing the potential financial upside and strategic importance of the initiative. Present a clear business case that demonstrates how personalization and insights can enhance customer experiences, drive revenue growth, and align with evolving customer expectations. Engage senior leaders across departments to ensure top-down support, which will reinforce the prioritization of this initiative within individual delivery teams agendas.
- **Emphasize Customer Centric Approach:** Communicate the shift and customer expectations and the need for a holistic view of customers across various channels. Stress the importance of not compromising on integrations needed for seamless visibility across channels highlight case studies or industry benchmarks to illustrate the

significance of a customer centric approach and the potential impact on customer satisfaction and retention.

- **Establish leading indicators and transparent metrics**: Conduct research to identify leading indicators for personalization and insight efforts. Educate key leaders early on about these indicators to manage expectations and demonstrate progress. Establish a robust measurement framework that includes both early stage and long-term metrics. Ensure transparency by regularly sharing progress updates and metrics with senior leadership, even in the initial stages, to foster trust and alignment.
- **Create evangelists and share success stories**: Develop a strategy to create internal evangelists for the program. Showcase success stories from other organizations, even beyond the banking sector, to illustrate the value and positive outcomes of similar personalization initiatives. Identify and engage key influencers than the bank who can champion the initiative, advocate its benefits, and address concerns raised by other leaders. Leverage evangelists to help address any resistance or skepticism among vocal leaders.
- **Customize education and mitigation of concerns:** Tailor educational sessions and meetings with individual senior leaders to address their specific concerns and priorities. Manage messages effectively and make sure that concerns are acknowledged and mitigated within the overarching communication strategy**.**

Metrics to Consider

Impacts of the project will be measured through various metrics, focusing primarily on customer satisfaction, conversion rates, and employee adoption and engagement.

- **Customer satisfaction metrics (NPS):** Implementing the solution aims to enhance the customer experience by providing personalized insights and recommendations. An increase in Net Promoter Score (NPS) would signify higher customer satisfaction. Improving NPS reflects positively on how well the solution meets customers' needs and preferences, indicating a stronger emotional connection and loyalty to the bank.
- **Conversion rates and digital journeys:** Tracking conversion rates from initial engagement with insights to subsequent actions, such as scheduling appointments with bankers or purchasing products provides insights into the effectiveness of the personalization recommendations higher conversion rates demonstrate the relevance and impact of insights on customer decision making, leading to increased engagement and transactional activities.
- **Employee adoption and engagement:** Monitoring employee adoption through surveys or feedback mechanisms helps evaluate how effectively bankers are leveraging insights provided by the solution. Measuring the visibility bankers have into customer insights and their confidence in these recommendations offers insights into whether the solution is enhancing their interactions with customers. Positive feedback and increased adoption indicate successful integration and acceptance of the solution into daily operations.

Improvements in these measures directly relate to the long-term profitability of the organization. And rise in NPS signifies improved customer relationships, increased loyalty, and potentially higher customer retention rates. Satisfied customers tend to become advocates, referring others and contributing to organic business growth. Positive word-of-mouth endorsements can lead to a broader customer base and long-term revenue streams. Higher conversion rates within digital journeys indicate that the personalized insights are resonating with customers, encouraging them to take desired actions. This in turn can drive revenue growth by boosting sales of banking products and services. Improved conversion rates translate to higher revenue generation and contribute positively to the bottom line. Enhanced visibility of insights for bankers and their confidence in these recommendations can significantly impact customer interactions. Increased adoption leads to more effective utilization of the solution resulting in improved customer satisfaction and ultimately stronger customer relationships. Engaged employees tend to deliver better customer experiences, directly influencing some retention and long-term profitability.

In summary, improvements in customer satisfaction metrics, conversion rates and employee adoption and engagement are key indicators of success of the project. These measures directly influence the bank's long-term profitability by fostering customer loyalty driving revenue growth through increased sales and optimizing customer interactions through empowered and engaged employees.

Conclusion

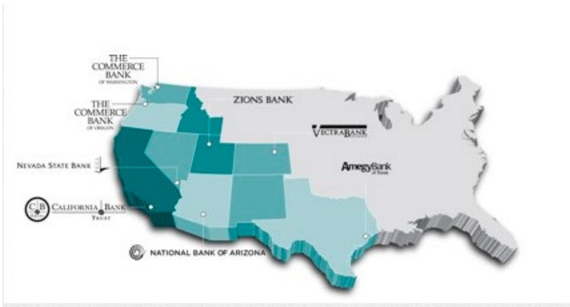
In conclusion, the case for implementing a personalization and insights strategy within Zions is compelling. Customers today expect personalized experiences and rewards, and by leveraging our deep knowledge of their needs and behaviors, we can not only meet but exceed these expectations.

The proposed strategy, with its focus on establishing a comprehensive infrastructure and leveraging technology to deliver personalized insights, presents a significant financial opportunity with a strong return on investment. Furthermore, the phased approach, starting with a minimum viable product and gradually scaling to a center of excellence, ensures that we can adapt to changing customer needs and market dynamics over time.

By investing in personalization and insights, we are not only positioning ourselves as a leader in customer experience but also driving revenue growth and enhancing customer loyalty. This strategic initiative aligns with our core values as a relationship bank and will enable us to continue delivering superior banking experiences that benefit both our customers and our business.

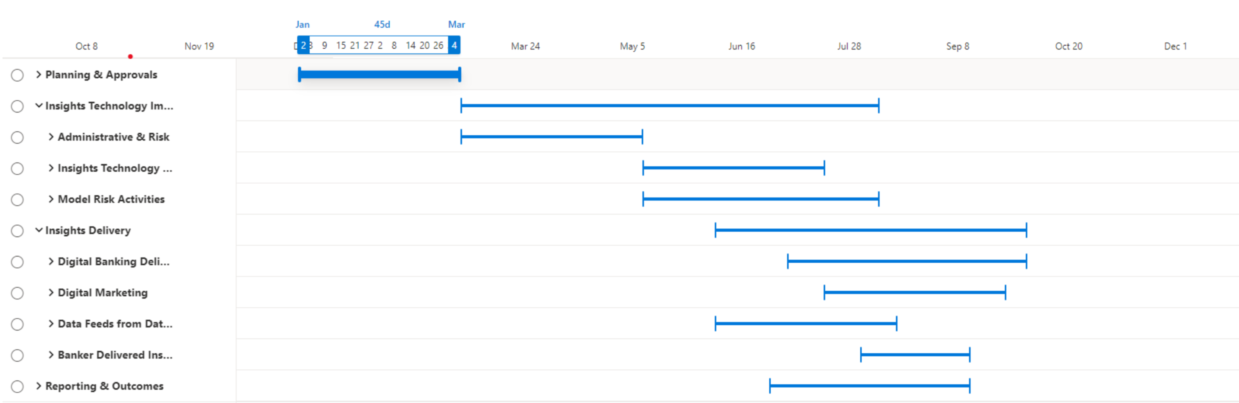
Appendix

Zions Bancorporation Footprint



Zions Bancorporation Areas of Strategic Focus

High level timeline



Detailed Implementation plan

#	Name	Duration	Task Owner
1	Planning & Approvals	45 days	
1.1	**Vendor Review & RFP**	**45 days**	
1.1.1	Initial Vendor Review - Insights Vendor	8 days	Business Owner
1.1.2	RFP Creation	14 days	Supply Chain Manager
1.1.3	RFP Response Period	14 days	Project Manager
1.1.4	Commercial Terms Preliminary Negotiation	10 days	Business Owner
1.1.5	Business Case Creation	5 days	Business Owner
1.1.6	Technology Architecture Review	1 day	Technology Architect
1.1.7	Technology and Funding Approval	1 day	Project Manager
2	Insights Technology Implementation	115 days	
2.1	**Administrative & Risk**	**50 days**	
2.1.1	New Initiative Risk Review	20 days	Business Owner
2.1.2	Contract Review & Finalization	30 days	Supply Chain Manager
2.2	**Insights Technology Implementation**	**50 days**	
2.2.1	Technology Integration Planning	10 days	Application Owner
2.2.2	API Integration Development	25 days	Interface Developer
2.2.3	API testing	15 days	QA
2.2.4	Data Storage and Feeds Planning	10 days	Data Developer

2.2.5	Data Governance Review	5 days	Data Governance
2.2.6	Data Feed Development	20 days	Data Developer
2.2.7	Data Storage Testing	10 days	QA
2.3	**Model Risk Activities**	**65 days**	
2.3.1	Model Risk Review	15 days	Model Risk Mgmt
2.3.2	Model Validation Documentation Creation	20 days	Business Owner
2.3.3	Model Output Testing & Approval	15 days	Model Risk Mgmt
3	**Insights Delivery**	**86 days**	
3.1	**Digital Banking Delivery**	**66 days**	
3.1.1	Digital Banking Integration Planning	10 days	Digital Banking Product
3.1.2	Digital Banking Requirements Gathering	15 days	Digital Banking Product
3.1.3	Insight Feed Development	20 days	Digital Banking Development
3.1.4	Insight Delivery UI Development	15 days	Digital Banking Development
3.1.5	Digital Banking Testing	15 days	QA
3.1.6	Digital Banking UAT	10 days	Business Owner
3.1.7	Digital Banking Production Release	1 day	Digital Banking Product
3.2	**Digital Marketing**	**50 days**	
3.2.1	Digital Marketing Data Integration Planning	10 days	Digital Marketing App Owner
3.2.2	Query Building Development	10 days	Digital Marketing App Owner

3.2.3	Query Output Testing	10 days	Digital Marketing App Owner
3.2.4	Digital Marketing Collateral Planning	10 days	Marketing Design
3.2.5	Digital Marketing Collateral Create	15 days	Marketing Design
3.2.6	Compliance Review & Approval	10 days	Compliance
3.2.7	Digital Marketing Testing	10 days	Digital Marketing App Owner
3.2.8	Digital Marketing Internal Rollout	5 days	Business Owner
3.3	**Salesforce Integration**	**50 days**	
3.3.1	Salesforce Integration Planning	5 days	Salesforce Developer
3.3.2	Salesforce UI Requirements Gathering	10 days	Business Analyst
3.3.3	Salesforce UI Development	15 days	Salesforce Developer
3.3.4	Salesforce UI Testing	10 days	QA
3.3.5	Salesforce Data Integration Dev	15 days	Salesforce Developer
3.3.6	Salesforce Data Integration Testing	10 days	QA
3.3.7	Salesforce User Acceptance Testing	10 days	Business Owner
3.4	**Banker Delivered Insights**	**30 days**	
3.4.1	Knowledge Management Panel	5 days	Bank Operations
3.4.2	Banker Talking Points Creation	5 days	Business Owner
3.4.3	Salesforce Training Creation	15 days	Learning & Development
3.4.4	Salesforce UI Training	5 days	Learning & Development
4	**Reporting & Outcomes**	**55 days**	
4.1	KPI Development	20 days	Business Owner

4.2	Reporting Requirements Gathering	15 days	Business Analyst
4.3	Report Development	20 days	Data Developer

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