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Hyper-Contextual Customer Engagement in Banking

Connecting digital endpoints and data through an AI layer

Today's digitally savvy and highly discerning consumers are accustomed to dealing with brands such as Amazon, Google, Facebook, and Apple in their day-to-day lives. These companies are adept at leveraging Big Data and Machine Learning to glean information about their customers, understand their needs and use this knowledge to cultivate loyalty through innovative and personalized offerings

With customers' appetite for new technology altering the way they consume banking services (think mobile banking, payments and more), consumers today expect the same level of highly individualized experience from their financial institution.

However, less than one-third (31%) of consumers think their financial institutions know their needs. In fact, only (34%) think their bank has their best interests at heart. Additionally, majority of consumers say their bank does not provide them with tools to better manage their financial health through personalized recommendations or advice based on their financial activity and behavior.1 It's clear from these data points that a seamless, holistic and personalized customer-centric engagement across different lines of business (LOBs) and channels is critical for a bank to truly differentiate itself -- to not only acquire customers, but also retain them by offering relevant information, products and services.

Consider the following statistics:

What is more important for consumers when choosing where to open an account?

Digital banking experience	67%
Friendly teller or staff	33%

What method do consumers use when accessing their bank?

Desktop or laptop	67%
Mobile device	30%
Branch	16%
Call center	03%

Source: 2016 MX Consumer Survey

CHALLENGE

To offer such hyper-targeted personalized engagement, an enterprise requires activity-driven situational awareness and the ability to react to this knowledge in real time. This means the enterprise needs:

1. The ability to act on data streams coming from different channels in real time,

2. The ability to correlate customer data residing in disparate data pools with real-time data streams, and

3. The ability to orchestrate interactions across LOBs and across channels.

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Interactions between most financial institutions and their customers today are happening in silos. The insurance, banking, wealth management and any other LOB within the financial institution are all talking to the same customer, but totally independent of each other. Many of these interactions are happening in a disconnected manner on a variety of channels, such as mobile device, desktop or in person. The context of the customer tends to get lost as the customer moves from one channel to another. Then there is the issue of correlating a customer's historical data that resides in the bank's CRM or transactional systems with that customer's real-time behavior, such as website browsing, mobile app usage, making purchases, and filling out forms. Add to this the customer's in-person interaction with the bank at specific locations such as a branch, kiosk, or ATM. All these data points need to come together to get a complete 360˚ view of the customer journey. This information is necessary to truly understand the customer's needs and intent … the customer's context.

However, to take this bank-to-customer engagement to the next level requires going beyond gaining a deep knowledge of customers. The key is to use these contextual insights to determine the points of greatest influence, or triggers, that will nudge the customer along in their journey, add value to their journey and react to these triggers in real-time.

DEFINITIONS

MACHINE LEARNING:
A field of computer science that gives computers the ability to learn without being explicitly programmed.[2] Advanced machine learning algorithms are composed of many technologies (such as deep learning neural networks and natural networks and natural language processing), used in unsupervised and supervised learning, that operate guided by lessons from existing information.[3]

HYPER-TARGETED:
The ability to interact based on real-time context and specific smart triggers that have influence over an individual's customer journey.

REAL-TIME STREAMING DECISION LAYER:
An event-based layer that recognizes patterns in events as they happen and brings together context to react to those events as they are happening.

THE SOLUTION

One of the top, privately held banks in India recently addressed this opportunity and rolled out a holistic, bank-wide strategy of customer-centric digital transformation in partnership with ZineOne. The bank was looking to connect with its 40 million customers with the same level of personalized interaction in the digital world as in its branches, without sacrificing scale, security and privacy.

Using ZineOne's Streaming Orchestration Layer, the bank was able to interact with its customers across all channels in a very targeted and personalized manner. ZineOne did this by:

- **Bringing the data together** from channels and backend data systems to create immediate context. It does so by gathering event streams that are coming from all user touch points, such as the website, the app, the mobile web, the kiosk. Then correlating and enriching it with data stored in the backend systems.

- **Surfacing contextual patterns and triggers** in the real-time activity data stream through its machine learning

models. This is the centerpiece of ZineOne's Streaming Orchestration Layer and it brings a unique intelligence from data in motion to discover points of influence where an intervention by the bank will yield the best possible results. The system analyses real-time data within a dynamic time window to identify salient events, patterns, trends, outliers, action/inaction, location and so on. The ZineOne system computes these triggers from explicit rules or through machine-learned algorithms. Once identified, these triggers signal the system to initiate an action.

- **Responding to those triggers in real time with 1:1 interactions** that leverage the customers most relevant context, adding tremendous value to their banking experience.

> ZineOne's Streaming Decision Layer bridges the gap between analytics and action. It not only marries every user's real-time behavioural data with the historical data sitting in the bank's backend systems to build context, it also triggers actions that are specific to that context.

Debjani Deb
CEO & Co-founder, ZineOne

HOW IT HAPPENED

The use cases implemented at the bank cut across all products, LOBs and channels, including website, mobile apps and mobile wallet. Through these use cases, the bank's objectives were to:

Enhance Customer Experience	Increase Transaction Completions	Boost Cross-sell/ Up-sell of Products

Below are some examples of the range of use cases:

USE CASE 1

Channel Aware Transaction/Form Completion Reminders

The goal here is to increase transaction completion by targeting customers who start filling out a form, say a loan application form, on one channel, but don't complete it.

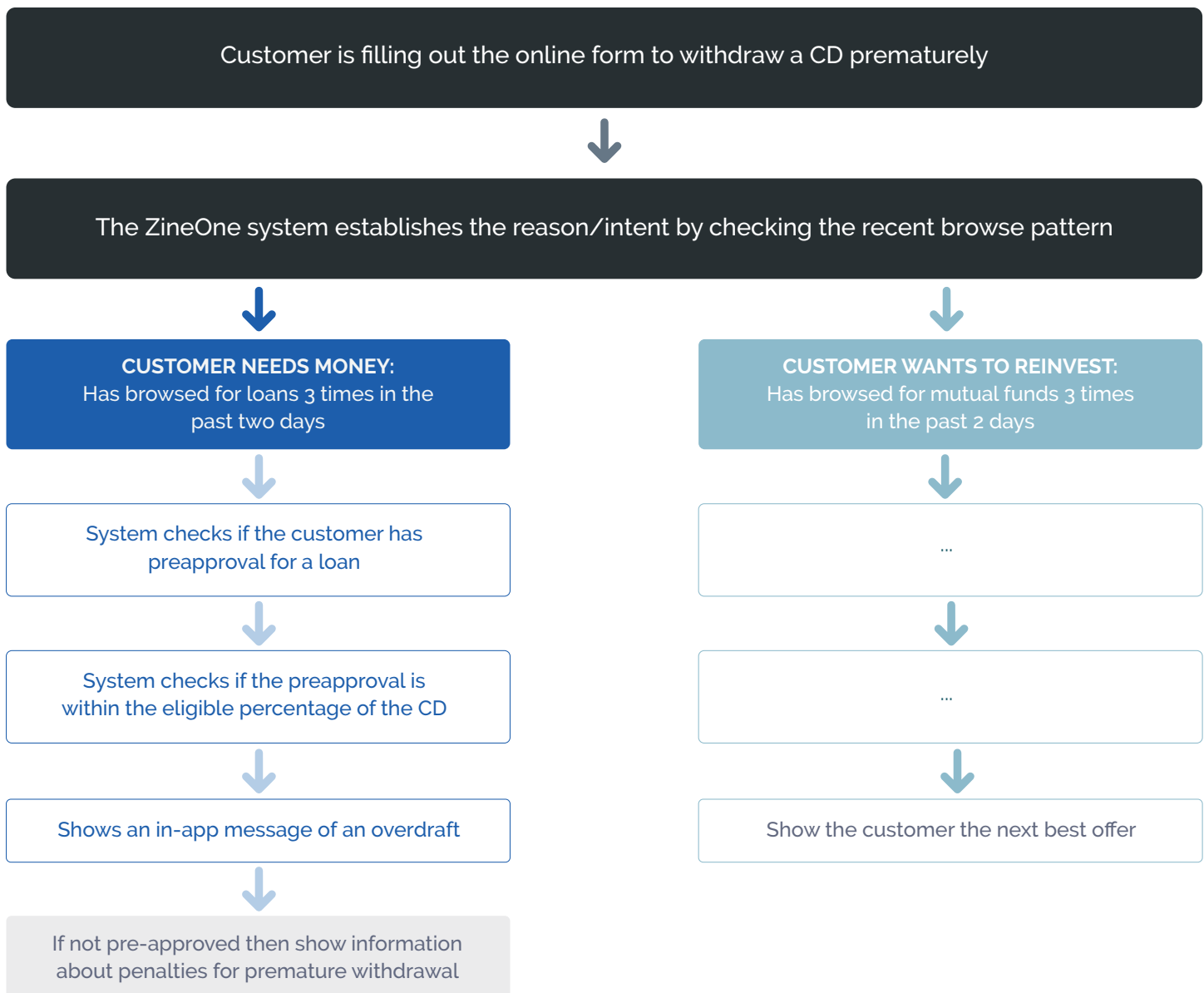| Customer starts filling out an online loan application on the desktop, but does not complete it	Next day, the customer opens the mobile app of the bank …	… and sees an in-app reminder about the incomplete form with a CTA that links to the incomplete form page

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USE CASE 2

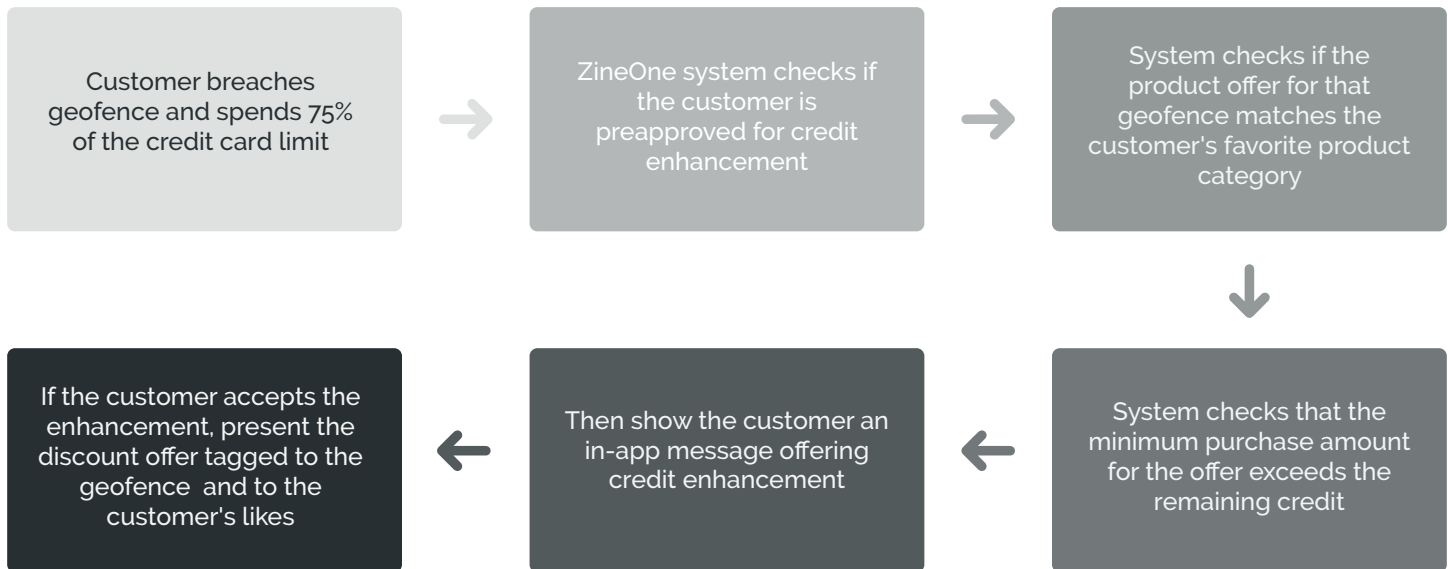**Real-Time Customer Intent Analysis and Next Best Offer**

The goal of this use case is to understand the intent of the customer and to present the most targeted and relevant information or offer, while the customer is still on the digital channel. For example, suppose a customer is on the bank's website and is trying to prematurely withdraw a Certificate of Deposit (CD). Banks issue CDs for a set amount of money and time and pay interest to the CD holder on a regular basis until the CD matures. The interest they pay the customer holding the CD is covered in the loans banks give out against these deposits. Needless to say, it's in the best interest of banks that a CD is not withdrawn prematurely and they charge hefty penalties to discourage this. This use case is an attempt to circumvent this situation.

Customer is filling out the online form to withdraw a CD prematurely

⬇

The ZineOne system establishes the reason/intent by checking the recent browse pattern

⬇ ⬇

CUSTOMER NEEDS MONEY:
Has browsed for loans 3 times in the past two days

CUSTOMER WANTS TO REINVEST:
Has browsed for mutual funds 3 times in the past 2 days

⬇ ⬇

System checks if the customer has preapproval for a loan

...

⬇ ⬇

System checks if the preapproval is within the eligible percentage of the CD

...

⬇ ⬇

Shows an in-app message of an overdraft

Show the customer the next best offer

⬇

If not pre-approved then show information about penalties for premature withdrawal

USE CASE 3

Orchestrating real-Time Personalization Across LOBs

Suppose, a customer breaches a geo-fence that has been tagged for credit card discount offers for purchases in a certain Merchant Category Code (MCC) exceeding a certain amount. Additionally, the customer exceeds 75% of the available credit limit in a transaction within that geofence. The goal of this use case is to understand the customer journey across the bank's LOBs and orchestrate engagement in a seamless and unified manner … In real time

Customer breaches geofence and spends 75% of the credit card limit	→ ZineOne system checks if the customer is preapproved for credit enhancement	→ System checks if the product offer for that geofence matches the customer's favorite product category

↓

If the customer accepts the enhancement, present the discount offer tagged to the geofence and to the customer's likes	← Then show the customer an in-app message offering credit enhancement	← System checks that the minimum purchase amount for the offer exceeds the remaining credit

RESULTS

With its machine learned, real-time orchestration for customer interaction, ZineOne helps enterprises transform their personalization engine to next-gen customer engagement. Driven by in-the-moment customer context and intelligence, such customer interactions produce 10x higher response rates than their current systems. After integration with ZineOne and deployment of use cases, the Bank saw:
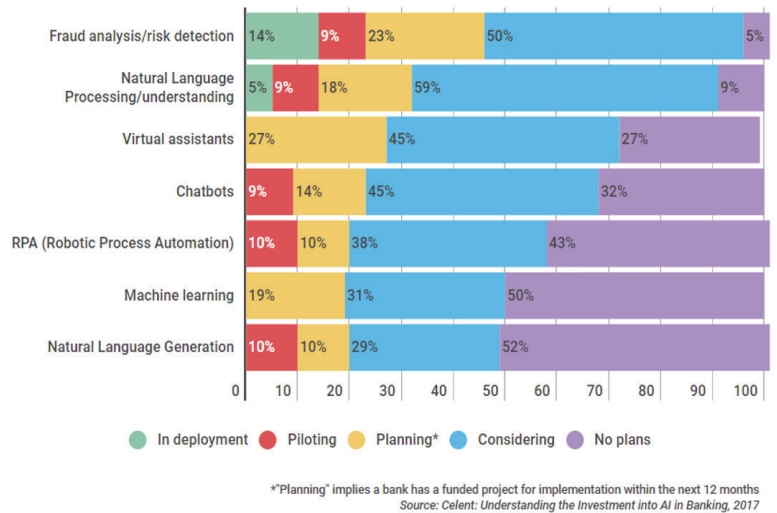
- **An increase of 18% to 23% range in customer response rates.** These responses drive various forms of conversion and task completion rates and directly impact business KPIs such as revenue growth.

- **A significant reduction in time-to-market.** Typically, ZineOne's deployment reduces the engineering effort by 75% and requires about 3-4 weeks on a per use case basis.

EMBRACING ARTIFICIAL INTELLIGENCE

Achieving a high level of real-time situational awareness of every customer to drive hyper-personalized engagement is not a trivial task. It requires analyzing, understanding and anticipating every customer's intent on the fly and reacting to it with the best action, at the best time, on the best channel. Artificial Intelligence is an integral part of this next chapter of digital transformation. It may feel like an Herculean task for Banks, as well as for other enterprises, that have just about caught up with the mobile revolution, to immediately embrace AI, a disruptor of exponential magnitude. But embrace it they must … as it comes with the promise of happy, satisfied and loyal customers.

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According to Gartner, improved customer experience, which in turns leads to increased customer loyalty, is the top outcome for digital business transformation. By 2020, Gartner is predicting that event-sourced, real-time situational awareness will be a required characteristic of digital business solutions, and by 2022, 30% of all customer interactions will be influenced by real-time location analysis to better understand the customer needs and intent. However, even by 2022, 50% of enterprises will be lagging "to unify engagement channels resulting in the continuation of disjointed and siloed customer experience, lacking context." Needless to say, it is imperative for banks and other financial institutions to put AI-powered customer experiences on their technology road map to differentiate themselves in the competitive landscape of fintech startups and other competing banks.

Deployment status of different AI technologies

*"Planning" implies a bank has a funded project for implementation within the next 12 months
Source: Celent: Understanding the Investment into AI in Banking, 2017

CONSIDER THIS:

- Only 15% of financial institutions globally have an AI solution deployed currently Another 22% are expecting to deploy a solution in the next 18 months

- Over 80% of the organizations surveyed found personalizing the customer experience and improved targeting either 'extremely' or 'very' important.

- Despite the deployment of security applications, an enhanced customer experience was the primary AI business case driver.

Source: Digital Banking Report, Sept 2017, BAI

In the realm of digital transactions, predictive responses need to be immediate and accurate. ZineOne's Intelligent Customer Engagement platform enables business users to understand and respond in-the-moment with relevant 1:1 customer engagements to encourage desired outcomes. Recognized by Gartner as a "Magic Quadrant for Personalization Engines" provider, ZineOne's platform has quickly positioned the company as a leading AI personalization provider that is delivering nearly $1 billion dollars in new revenue while respecting and preserving margins for companies who seek to provide consumers with superior shopping experiences. The patent-pending platform and its continuous learning models provide deep insights into each and every visitor across digital and physical channels while delivering intelligent customer experiences in key moments that delight customers, foster loyalty, and increase revenue.

Learn more at www.zineone.com.

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