

Case Study

Using Retain for Delinquent Customer Life Cycle Management

How a Leading BNPL Provider Used A/B Testing to Choose an Effective and Cost-Efficient Customer Engagement Vendor

Is your communication strategy for past-due accounts as effective as it could be? This case study explores how an industry-leading fintech used A/B testing to compare the effectiveness of using Retain versus their existing vendor and select a cost-efficient method for engaging delinquent customers. In this test, using Retain for customer communications outperformed the company's existing legacy vendor in their goal of delinquency recovery by 2.6% in net manual recovery rates.

With so many different options in the marketplace to engage customers, let's discover how an enterprise Buy Now, Pay Later (BNPL) provider for the world's leading travel, retail, and e-commerce brands was able to test and trust the results with confidence to completely shift their communication strategy to digital, eliminating the need for their legacy provider. Read on to see how using digital channels for customer engagement can help your business successfully manage the delinquent customer life cycle.

In today's digital-enabled world, which consumer engagement method works best, phone calls or digital channels like emails, SMS, voicemail, etc.?

The Situation

This was the question for one of the BNPL's data scientists and his team when it came to evaluating the success of their customer communications: does our legacy vendor, who relies on calling methods to contact customers, offer an effective and cost-efficient way to engage customers or would a digital communication solution like Retain offer better results?

'Do we go with Retain and a digital-first communication approach or do we stick with our old calling servicer?'

To help decide which vendor was right for the company, the BNPL completed a three month introductory period with Retain where they pitted the intelligent digital delivery platform against their legacy vendor to test their effectiveness—but how would the BNPL determine who was the better of the two candidates?

The two approaches had some very big differences in their uses of technology, customer engagement methods, and cost structure—simply comparing the two on paper wouldn't provide an accurate picture to help all the stakeholders make an informed decision.

Retain Value Proposition

- Optimized and individualized digital delivery
- Primarily digital touch points like email and SMS to contact customers
- **Cost Structure:** Tiered flat-fee cost structure per account (not based on recovery)

Legacy Vendor Value Proposition

- Outbound calling
- Dialer-heavy communication channel mix
- **Cost Structure:** Commission-based cost structure (upwards of 6% on payments made under their service)

The legacy vendor's commission-based cost structure was tied to the performance of each of their representatives, taking an upwards of 6% cut on all payments collected that were seen under their servicing—whether the vendor actually engaged directly with them or not. Because the BNPL also has automatic payment pulls that occur concurrently with those placed with an outside provider, the legacy vendor's cost structure was suboptimal in the fact that BNPL's own internal system was pulling the payment, but the legacy servicer was still receiving commission on that account.

Retain does not collect payments and pricing plans are based on the number of customers being managed—never on how much clients are collecting—so as programs improve or balances vary, costs don't fluctuate.

The Challenge

The differences in cost structure alone were not enough to tip the scale in Retain's favor. The differences in both cost structure and engagement effectiveness were at the crux of the comparison in this instance. So how could the data scientist and his team perform a more thorough analysis within the three-month pilot period between the two providers?

Enter A/B Testing. Without fully committing to switching vendors, companies can identify the most effective strategy and optimize their communication process by testing different approaches and measuring results.

Questions for every business when comparing solutions:

- What is the cost structure of the service?
- Does the service effectively engage customers?
- How will this service impact customer relationships?
- What is the overall cost of this service for my business?

The Test

For the BNPL, the ultimate goal of customer engagement was the recovery of past due accounts, so the solution to this challenge was in the details and metrics of their A/B test design.

1. Both options were evaluated at the same time so each would be susceptible to the same macroeconomic or seasonal effects that could affect the collectibility of the portfolio.
2. An account must have never reached 30+ days past due (DPD) before placement into the test. Further, an account must have never been serviced by the legacy vendor previously.
3. Retain and the legacy vendor had similar distributions of account types, so if the test was run again with the portfolios switched, it is safe to assume the results would be the same as what was seen on the original test.
4. And finally, placement in the test groups was randomized to each of the vendors once all the above conditions were met.

Primary and Secondary Evaluation Metrics

After taking into account both the metric criteria and steps to avoid bias, the BNPL determined a primary metric and a secondary metric to effectively compare the efficacy of using Retain and their legacy vendor in customer engagement.

Primary Metric: Net Manual Recovery Rate (denoted as M). This metric is focused on provider evaluation, or the actual effect the service had in prompting customer action.

- Captures cost to collect
- Captures only manual payments, which are more directly linked to provider performance
- Important to keep in mind that only including manual payments does not account for all payments

Reminder: under the legacy vendor's cost structure, it didn't matter if the payment was automatic without any third-party interaction or manual, the vendor still got their upwards of 6% commission.

Net Manual Recovery Rate (M)

$$\frac{(\text{Manual Payments Collected within 30 Days of Third Party Placement}) - (\text{Cost to Collect})}{\text{Total Past Due Balance Placed with each Third Partry Servicer}}$$

Secondary Metric: All Collections Return Rate (denoted as A). This metric is representative toward total past due recovery and is more balance sheet-focused—what did we get back in total?

Automatic payment recoveries would not count towards a provider's propensity to collect. The data science team did not believe either party should get credit for an automatic payment pull because it was the BNPL's internal process that secured payment, not anything done externally to influence whether or not the account holder engaged or decided to make a payment.

- Captures payments of the entire portfolio, both manual and automatic
- More specific metric around client's goal of past due recovery
- But metric does not capture provider performance directly since automatic payments are included

All Collections Return Rate (A)

$$\frac{\text{All Payments Collected within 30 Days of Third Party Placement}}{\text{Total Past Due Balance Placed with each Third Partry Servicer}}$$

‘Our null hypothesis is that there is no difference in the net manual recovery rate between the two providers,’ explains the BNPL’s data scientist. ‘And our alternative hypothesis is that there actually is a difference between the two providers and using Retain shows a better net manual recovery rate.’

And the test determined that using Retain was better at engaging customers who then took repayment action directly with the BNPL, but how could the BNPL give their business stakeholders a clearer picture of the cumulative test results?

How reliable is this sample really? What would be the likely values for the difference in net manual recovery rate if the BNPL ran the test again and again? The data science team did not have the resources nor the time to do another full-blown A/B test with new samples.

Enter the bootstrapping method.

Bootstrap Method

Bootstrapping is essentially resampling the data many times in order to understand the variance and the distribution of the sampled metric, assigning accuracy measurements to the original estimate. This resampling, with replacement, is conducted as many times as the length of the sample and can calculate the evaluation metric on each of the groups and plot the difference of the evaluation metric between the two provider groups.

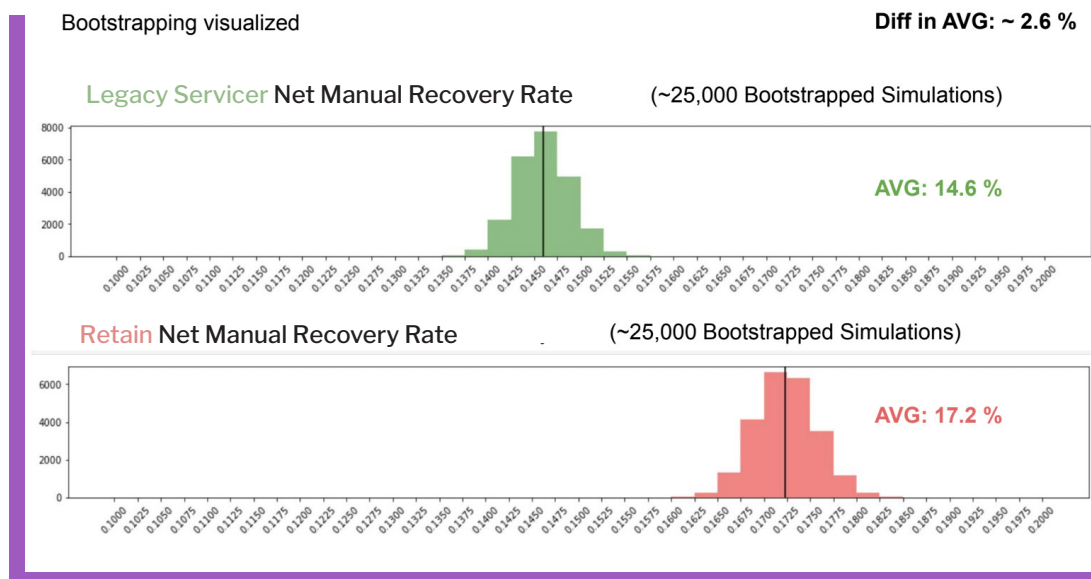
So instead of having a single metric representing the expected difference between the metric of the two groups, there is an entire distribution of expected difference and the results picture becomes much more reliable for both the data science team and their company's stakeholders.

The Results

Through a highly refined test design, the data science team was able to translate the data into digestible business results to compare the effectiveness of using Retain to contact customers with that of their legacy vendor—with impressive initial results that helped the BNPL make their decision to use Retain.

Primary Evaluation Metric

The charts below show the **Net Manual Recovery Rate** using Retain and the legacy vendor, calculated through the bootstrapping method:



Critically, the entire bootstrap distribution of Retain falls above the entire bootstrapped distribution of the legacy vendor. The beauty of this bootstrap distribution is that now the BNPL had a reliable estimate on the variance of the magnitude of the difference.

The key takeaway was that every single kind of resample using Retain ended up being better than every single resample for the legacy vendor.

Secondary Evaluation Metric

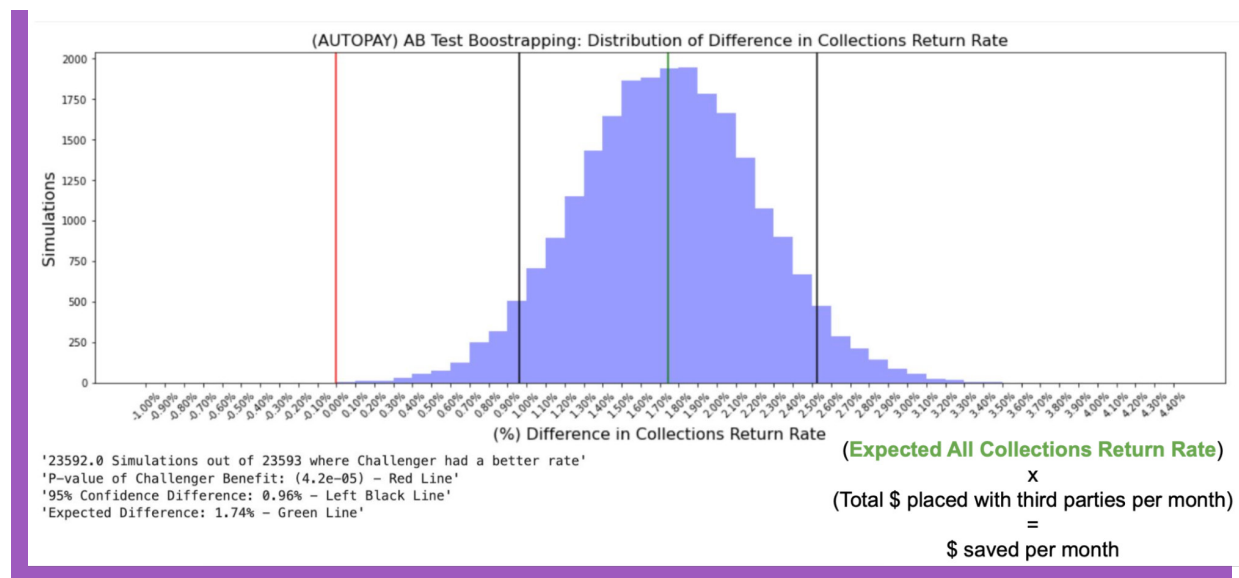
The chart below shows the bootstrapped difference in the All Collections Rate. The red line represents 0% (expected difference if null hypothesis is true that there is no difference between Retain and the legacy vendor), the green line is the 50th percentile, and the black lines represent the 5th and the 95th percentiles respectively:

Black Lines: (5th and 95th Percentiles)

Green Line: (50th Percentile)

Red Line: (Expected Difference in means if null hypothesis is true)

All Collections Rate Bootstrap Visualization ($A_{(TF)} - A_{(LS)}$) - Percentage



In terms of the bottom line, using Retain was still better than the legacy vendor in terms of All Collection Rate, but was not as pronounced as looking at how effective using each provider was at prompting manual payments and in terms of their cost as well. The tests found that using Retain was more cost effective than the legacy vendor. When automatic payments were added into the numerator, the legacy vendor had more automatic payment recoveries as a ratio of total collections, on which they continued to collect commission despite not directly engaging with the account or influencing payment.

Additionally, to translate this percentage into a dollar amount they expected to save per month if the company made the switch to using Retain for delinquent customer communications, they would take the expected All Collections Return Rate of about 1.7% and then multiply that by the total amount placed with the provider per any given month, which will give the dollar amount the BNPL would have saved if they used Retain for their entire portfolio instead of splitting it up between the two providers.

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The Outcome: Digital Offers Better Customer Life Cycle Management

With the A/B test complete, successfully avoiding bias and confident in their metrics and evaluation of the results, the data science team could start to look ahead at the other benefits Retain delivered as a customer engagement tool. Switching from traditional calling outreach methods to a digital-first, omnichannel approach was clearly better for customer engagement and cost-efficiency in delinquency, but also presented new opportunities to leverage digital communications for broader customer life cycle management by communicating in the customers' preferred channel.

“We’re really excited about digital-first touch points,” explained the BNPL’s data scientist. “And excited to explore what that could look like in improving communications at other points in the customer journey.”

Through diligent A/B testing, the BNPL could take that next step forward in their customer communication strategy with confidence using Retain.

Ready to improve your customer communications and delinquency life cycle management using Retain’s proven digital-first, omnichannel approach? **Schedule a consultation today!**