Hidden Patterns to Unlock Breakout NRR Improvement

How 160 billion data points helped discover universal patterns that predict customer behavior with 90% accuracy and improve net revenue retention (NRR) by 5%

Note: This is an excerpt from a longer report, 'Engineering Predictable SaaS Account Growth'

For years, SaaS companies built their growth strategies on a simple assumption: keep customers happy, and they'll spend more over time. Net Revenue Retention (NRR) became a key metric, a reliable indicator that existing customers were not just staying but investing deeper in their relationships.

Today, that assumption no longer holds. 58% of companies report lower NRR than two years ago. Customer retention and expansion used to be a dependable growth strategy; now it's an urgent concern.

SaaS CEOs have made reversing NRR declines a top priority. "Realigning resources to grow revenue from the existing customer base" and "adjusting guidance regarding which accounts to prioritize" are now their top focus areas for meeting revenue and margin targets.
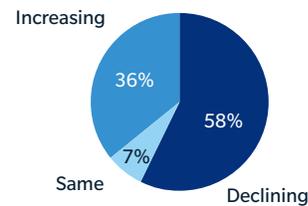
58%
of companies report lower NRR than two years ago.

NRR is Down and Has Not Recovered
Average NRR by quarter Q1 2023 to Q1 2025

110.5%

107.1%
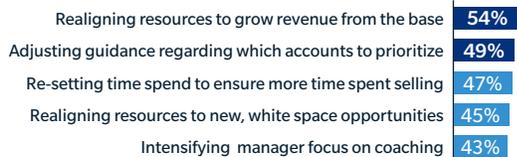
116%

104%
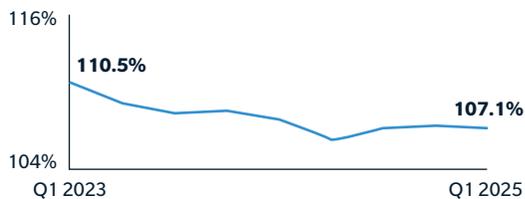
Q1 2023   Q1 2025

n = 45 Q1 2023 n = 80 Q1 2025
Source: SBI NRR Dataset

Most Companies' NRR is Lower than Two Years Ago
Share of companies with declining NRR Q1 2023 to Q1 2025

Increasing

36%

58%

7%

Same   Declining

n = 45 Q1 2023 n = 80 Q1 2025
Source: SBI NRR Dataset

Growing the Base is the Highest Focus Area
CEOs' top five focus areas to meet revenue/ margin targets

Realigning resources to grow revenue from the base	54%
Adjusting guidance regarding which accounts to prioritize	49%
Re-setting time spend to ensure more time spent selling	47%
Realigning resources to new, white space opportunities	45%
Intensifying manager focus on coaching	43%

n=120
Source: SBI 2025 Q2 CEO Survey

Increasing Retention is The Top Priority
CEOs' top five growth levers to value creation plans

Increase customer retention/ decrease churn	77%
Boost market penetration/ expansion	68%
Improve go-to-market efficiency	66%
Develop and launch new products	53%
Evolve service delivery model	50%

n=120
Source: SBI 2025 Q2 CEO Survey

Declining NRR despite Growing Data

The frustrating reality is that these NRR declines are happening when companies are drowning in customer data. Customer success platforms capture millions of data points per account, yet teams still struggle to reliably predict which accounts will renew, expand, or churn.

What can GTM leaders do to reliably identify which accounts are at risk and where to focus growth efforts?

To answer this question, SBI partnered with QuadSci to analyze 160 billion telemetry data points across 9,100 customer outcomes. Our first finding confirmed what many GTM leaders have long suspected: solution usage is central to distinguishing accounts that will grow from those that will churn.

Usage data explains 80% of customers' renewal and expansion decisions, dwarfing the combined predictive power of firmographics, historical performance, and customer success interventions. This should reassure teams that their focus on product adoption is sound. But it also raises a critical question: if usage is so predictive, why are outcomes so hard to predict?

Key Drivers of Renewal and Expansion Decisions
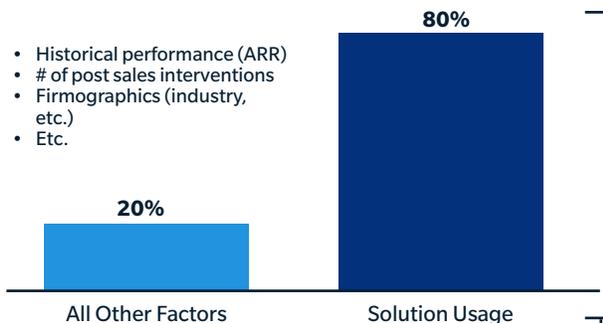
- Historical performance (ARR)
- # of post sales interventions
- Firmographics (industry, etc.)
- Etc.

20%
All Other Factors

80%
Solution Usage

Source: QuadSci Retention and Growth Data
n=160 Billion Telemetry Datapoints across 9100 commercial outcomes

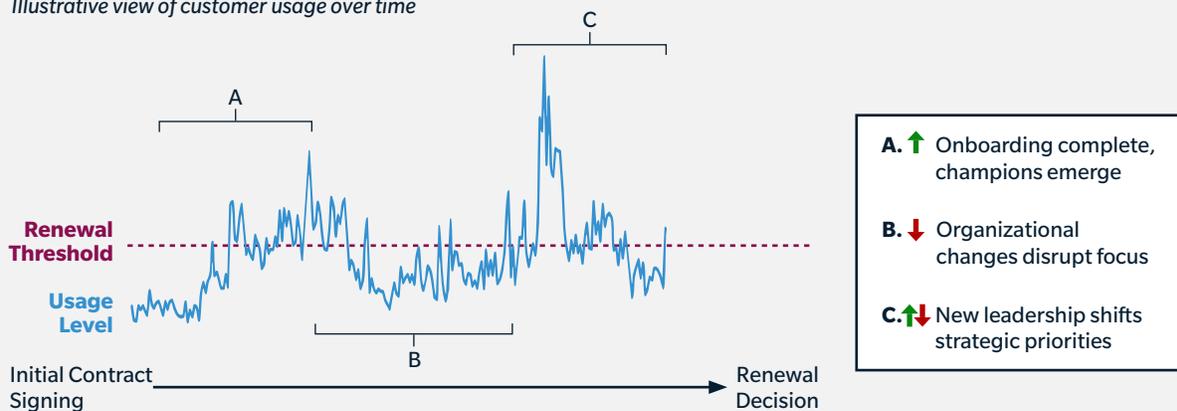Solution usage explains **80%** of a customer's renewal or expansion decision.

Simply Put: Usage that drives business value leads to renewal and growth.

Volatility Creates A Signal-to-Noise Problem

The disconnect stems from how teams interpret usage data. Most focus on usage levels—how much customers use the product at any given moment. The problem is that usage levels are notoriously volatile.

A customer who appears highly engaged in Q2 may show concerning declines in Q3, only to rebound in Q4. These swings occur for internal (onboarding effectiveness, customer success engagement) and external (organizational restructuring, budget cycles, strategic pivots) reasons. This volatility leaves teams struggling to distinguish whether an engagement dip is a temporary blip or an early signal that a customer is about to churn.

Illustrative view of customer usage over time

A. ↑ Onboarding complete, champions emerge

B. ↓ Organizational changes disrupt focus

C. ↑↓ New leadership shifts strategic priorities

Two Problems Volatility Creates for CSM Teams

1. **Teams waste resources attempting to save accounts that will churn regardless of intervention.** Analysis shows that 48% of accounts fall below the renewal threshold, but only 31% can actually be saved with appropriate engagement.

2. **Teams miss genuine expansion opportunities by applying renewal-focused playbooks to satisfied customers who don't need reinforcement.**

Uncovering Hidden Patterns in Usage Data

Teams focusing on usage levels alone will never achieve the predictive accuracy they need. The fundamental problem isn't lack of data; it's the absence of a framework for interpreting the data they already have.

That framework requires looking at two critical dimensions simultaneously: usage level and usage consistency. The first tells you how much a customer uses the solution; the second tells you how predictably they use it over time. Consider two accounts with identical usage volumes. One demonstrates steady, reliable engagement. The other shows erratic usage despite the same overall activity. These accounts will make fundamentally different renewal decisions.

We worked with QuadSci's Cohorts AI to analyze usage level and consistency across 9,100 accounts throughout their entire customer lifecycle. When you plot customers on these two axes, something remarkable happens: the noise of volatility disappears. What previously looked chaotic—seemingly infinite customer variations—naturally clusters into six distinct, predictable patterns. These patterns existed all along, hidden in plain sight within usage data that seemed too volatile to interpret. We call these patterns cohorts, and they are the key to predicting commercial outcomes and improving NRR. Cohorts forecast which accounts will churn, renew, or expand with 90% accuracy up to twelve months in advance. GTM teams using cohorts to guide account management strategy see an average 5% improvement in NRR.

This level of precision transforms how teams operate. Instead of reacting to health score changes or scrambling during renewal cycles, teams can identify problems and opportunities quarters in advance.

Usage level and consistency reveal cohorts
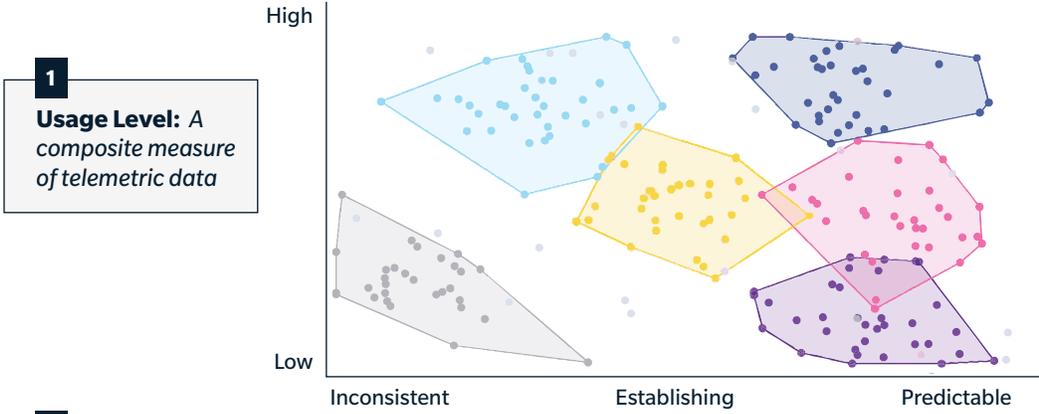
1

Usage Level: *A composite measure of telemetric data*

2

Usage Consistency: *The predictability of the usage level over time*

n=160 Billion Telemetry Datapoints across 9100 commercial outcomes
Source: QuadSci Retention and Growth Data

Usage Level and Usage Consistency unlock **Cohorts** enabling:

90% accuracy predicting account retention and growth

5% improvement in NRR

1. **Operating frameworks** aligned to and account's usage profile

2. **Commercial resource** deployment that maximizes account potential

3. **Timely interventions** that improve commercial outcomes

High	**Enthusiastic Adopters** 18% of accounts Quickly scaled usage to high levels but a pattern hasn't fully formed	**Converts** 17% of accounts The first cohort where usage level and consistency tip to indicate a renewal	**Power Users** 17% of accounts Most consistent and engaged accounts should form the basis of ICP
			Strugglers 16% of accounts Accounts with consistently low usage that are likely to churn
Low	**Explorers** 15% of accounts All new accounts start as Explorers with low usage and a pattern yet to emerge	**Disconnected** 17% of accounts Accounts that won't renew, are potential candidates for intentional churn	

Usage Level (vertical axis)

Usage Consistency (horizontal axis): Inconsistent — Establishing — Predictable

Source: QuadSci Retention and Growth Data
n=160 Billion Telemetry Datapoints across 9100 commercial outcomes

The Six Usage Patterns That Predict Outcomes

Cohorts are consistent archetypes that reflect customer behavior and indicate an account's potential over time. Each represents roughly 15-18% of accounts, distributed with surprising consistency across customer bases.

Power Users (17% of accounts) show both high usage and high consistency. These customers have fully integrated the solution into their workflows and depend on it regularly. Average NRR: 113%.

Enthusiastic Adopters (18% of accounts) demonstrate high usage but haven't established consistent patterns. They're either newer accounts still finding their rhythm or established customers whose circumstances recently changed. Average NRR: 113%.

Converts (17% of accounts) represent the tipping point—the first cohort where usage level and consistency indicate likely renewal. These customers have found reliable ways to extract value. Average NRR: 110%.

Explorers (15% of accounts) are typically new accounts with low usage and no established pattern. They're still determining whether and how the solution works for them. Average NRR: 101%.

Strugglers (16% of accounts) show consistently low usage. They've settled into patterns below the renewal threshold. Average NRR: 84%.

Disconnected (17% of accounts) treat the solution as shelfware, with minimal engagement over extended periods. At 74% NRR, these accounts are effectively churning.

Two Zones Revealed by Cohort Analysis

Cohort's ability to reveal whether an account is at risk of churning or presents a growth opportunity creates clear zones of action that guide resource allocation.

Power Users, Enthusiastic Adopters, and Converts sit above the renewal threshold in what we call the Zone of Expansion. Collectively, they represent 52% of accounts and generate NRR well above 100%. This is where growth efforts belong.

Explorers, Strugglers, and Disconnected accounts occupy the Zone of Contraction. They combine for 48% of accounts but produce sub-100% NRR. These cohorts require different strategies focused on moving them above the renewal threshold or, in some cases, making deliberate decisions about whether to invest further resources.
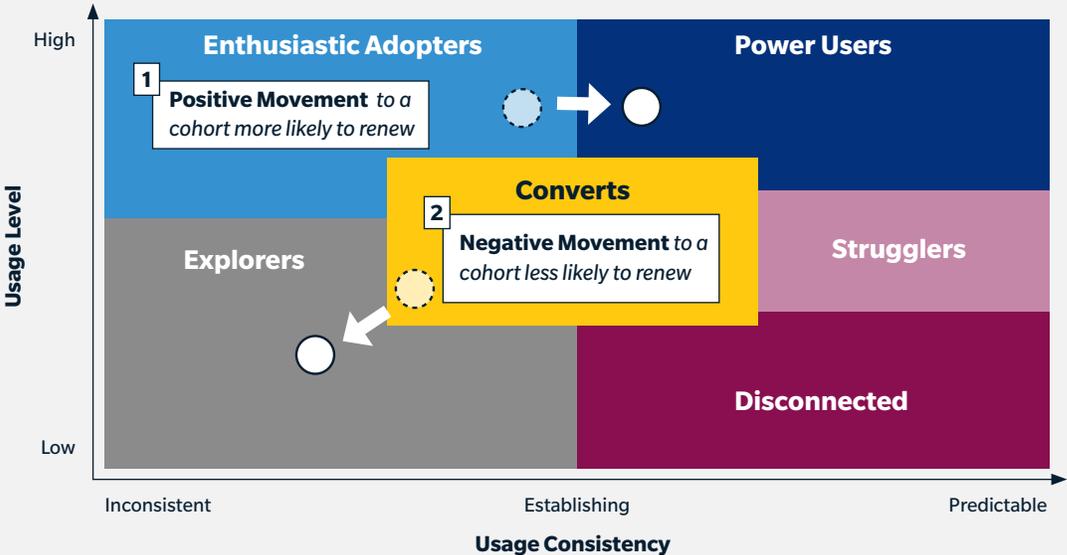
This data-driven segmentation solves the resource allocation problem that plagues most customer success organizations. Teams can deploy targeted approaches matched to each cohort's specific characteristics rather than applying generic one-size-fits-all playbooks.

Cohorts Shift as an Early Warning System

What makes cohorts particularly valuable is their dynamic nature. Unlike traditional segmentation that locks customers into fixed categories, cohorts evolve as customer circumstances change. This evolution provides early warning signals that traditional health scores miss.

Movement is most pronounced during the first year, when customers determine whether the solution fits their needs. New customers change cohorts on average every 60 days, moving five times during their first twelve months. But movement continues throughout the relationship, reflecting shifting priorities and changing organizational conditions.

Tracking this movement reveals critical information. Positive movement occurs when a counts shift to a cohort with a higher average NRR, for example, when a Struggler evolves into a Convert, it signals strengthening value realization. Negative movement happens when an account slides to a cohort with a lower NRR, like when a Power User slides toward Convert status, it indicates emerging challenges that could threaten renewal. These transitions can provide months of lead time to intervene—the difference between preventing churn and scrambling to save a relationship already in decline.

Enthusiastic Adopters

1 **Positive Movement** *to a cohort more likely to renew*

Power Users

Converts

2 **Negative Movement** *to a cohort less likely to renew*

Explorers

Strugglers

Disconnected

Usage Level — High / Low

Usage Consistency — Inconsistent / Establishing / Predictable

n=160 Billion Telemetry Datapoints across 9100 commercial outcomes
Source: QuadSci Retention and Growth Data

Not all cohorts move at equal rates. Our analysis shows Explorers, Strugglers, and Converts experience the most shifts, both positive and negative. Power Users, Enthusiastic Adopters, and Disconnected accounts exhibit greater stability. This pattern indicates where to focus attention. High-movement cohorts require intensive management to trigger positive movement and prevent negative ones. Stable cohorts need different approaches—monitoring expansion opportunities for high performers while watching for early warning signs of decline.

Playbooks That Match Reality

Understanding cohorts enables GTM teams to deploy resources with precision, matching strategies to specific customer populations rather than applying generic approaches.

For the Zone of Expansion, playbooks focus on deepening engagement and identifying growth opportunities. Power Users are ideal candidates for beta testing and early adoption programs, with account teams mapping expansion opportunities beyond core users throughout their organizations. Enthusiastic Adopters need help stabilizing consistency across their accounts—teams should work with champions to identify workflow changes that accelerate broader adoption. Converts require strategies that improve both usage level and consistency, moving them toward Power User or Enthusiastic Adopter status.

The Zone of Contraction demands different tactics. Explorers need intensive onboarding through targeted in-app guides and AI agents, with a focus on achieving quick wins within 30-90 days. Strugglers signal misalignment between solution capabilities and customer workflows—teams must diagnose these gaps and highlight alternative use cases. Disconnected accounts pose a strategic question: is saving them worth the investment, or should you let them churn? Often these relationships suffer from fundamental mismatches that no amount of intervention will fix.

From Guesswork to Predictable Growth

The decline in NRR isn't inevitable. Companies can reverse this trend by recognizing that their existing data contains powerful signals hidden beneath volatile surface metrics. Usage consistency, combined with usage level, reveals the patterns that predict customer outcomes with unprecedented accuracy.

In a market where customer acquisition costs continue rising and efficient growth separates winners from losers, the ability to systematically expand existing relationships through data-driven pattern recognition will determine which companies thrive. Companies reversing NRR declines have stopped guessing which accounts will grow. They're reading the patterns that were always present in their data and acting decisively on what those patterns reveal.

Learn more by reading the full report, Engineering SaaS Account Growth.

Why SBI?

Driven by insights and delivered from experience, SBI continues to help clients grow their revenue, margin, and enterprise value in ways never before possible.

Working with us, go-to-market leaders can expect confidence and trust with experienced partners every step of the way. We engage and support our clients as an extension of their team, both guiding and working side-by-side to deliver relatable, practical strategies that work for today and tomorrow.

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