The Ultimate (SaaS) Churn Rate Cheat Sheet

This is an in-depth followup to The Ultimate SaaS Metrics Cheat Sheet.

What is churn rate?

The rate at which you are losing customers or revenue through subscription cancellations.

Why is it so important?

If it's too high your churn rate will have a highly negative impact on your business and is an indicator that you should make some changes. Much has been written about the perils of having a high churn rate so we'll not focus on the why in this cheat sheet.

Calculating churn

There are two main types of churn, customer churn and revenue churn.

◎ B2B

- Customer churn rate

$$\text{Customer churn rate} = \frac{\text{Number of customers who churned in period (excluding any customers who both joined \& churned in the period)}}{\text{Total number of customers at start of period}}$$

- Monthly recurring revenue (MRR) churn rate

$$\text{MRR churn rate} = \frac{\text{SUM of churn \& contraction MRR-SUM of expansion \& reactivation MRR}}{\text{MRR at start of period}}$$

* When calculating churn rate it's important not to mix subscriptions with significantly different billing periods, e.g. don't mix annual plans in with monthly plan.

◎ B2C

While most SaaS is B2B there is a significant B2C contingent. Steven H. Noble at Shopify and Devin Brady at Recurly have both blogged about an alternative churn calculation that we feel is better suited for B2C subscription businesses (links to these articles are included in the References section overleaf).

- Customer churn

  Iterating through each day in the selected period (e.g. month/quarter) we calculate as follows:

  SUM(1 - #_active_customers_at_end_of_day / #_active_customers_at_the_start_of_day)

  This gives us our Customer churn rate for the given period.

- MRR churn

  For each day we calculate the total MMR at the start of the day.

  We then see how much of that MRR is still present at the end of the day, ignoring any expansions, contractions and new customers.

  Iterating through each day in the selected period (e.g. month/quarter) we calculate as follows:

  SUM(1 - total_mrr_at_end_of_day / total_mrr_in_the_beginning)

  This gives us our MRR churn rate for the given period.

Classifying churn

Not all churn is created equal, these are the four main types of Churn we've identified:

❌ Pro-active churn: The customer chose to cancel.

😑 Passive churn (aka reactive churn): The user didn't bother to update their credit card info.

😊 Happy churn: A subset of pro-active churn, happy churners are common in certain types of businesses. These are customers who finished using your product for their campaign (or similar short term use case), so cancel with a positive experience. One way to identify happy churners is to look at what % of cancelled accounts reactivate at a later date - or to simply ask your customers why they cancelled.

✅ Churn that isn't really churn: Some companies have 30-day money back guarantees or similar. It's useful to be able to separate out customers that fit this churn profile as there's a different dynamic going on and they're not usually representative of a customer who's been a subscriber for several months and then decides to cancel.

Being able to intelligently segment the different types of churn is something we're working hard on at ChartMogul.
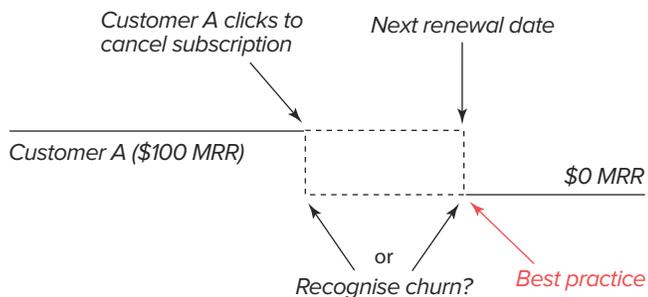
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When to recognise churn

Companies typically offer one or both of these cancellation options.

- Cancel immediately
- Cancel at the end of billing period

You should decide how you want to recognise churn at your company. For revenue recognition we believe that it's a best practice (unless you are also issuing a refund) to recognise the churn at the end of the paid-up period in both scenarios. For the purpose of understanding user behaviour looking at when a user clicks cancel is more useful.

Customer A clicks to cancel subscription

Next renewal date

Customer A ($100 MRR)

$0 MRR

or

Recognise churn?

Best practice

What is a healthy churn rate?

Some level of churn is unavoidable, but at what level does it become a real problem? This really depends on the type of business you're running.

B2B enterprise-y companies tend to have the lowest churn rates, deals tend to be annual or even multi-year and buyers are not price sensitive (and are not spending their own money). Jason M. Lemkin shared that EchoSign had annual negative MRR churn of -10% to -30% (including offset for cancellations and downgrades). Tomasz Tunguz reports that New Relic's and Zendesk's MRR churn rates are at -14% and -20% respectively.

In SMB SaaS, churn rates tend to be much higher, results from GrooveHQ's SaaS small business survey showed an average churn rate of 3.2% monthly (annualised that is 32% annual churn $100 * (1 - (1-.032) ^ 12)$. It's unclear from Groove's blog post if they're measuring customer churn or revenue churn but either way it's not good. If it's customer churn these companies will need to be adding new customers at a rate of 32% per year just to break even on the customer count they started the year with.

At the end of the day revenue churn (MRR churn) is a more important measure in most cases, it's not so problematic if you lose a few smaller customers if your larger customers are all expanding like crazy.

When not to use churn

If you have a limited number of customers on annual plans it's better to look at retention rate rather than churn for annual subscriptions until you have a large enough number of these customers up for renewal in any given month.

This all sounds like a lot of work!

At ChartMogul we spend a great deal of time working with SaaS companies and thinking about how to accurately calculate churn rate, so you don't have to. With one-click ChartMogul generates accurate churn rates for your SaaS/subscription business.

You can also use cohort analysis to see how churn rates evolve over the lifespan of a group (cohort) of customers who started paying in the same time period. More on cohort analysis in:

The Ultimate Cohort Analysis Cheat Sheet
https://chartmogul.com/blog/2015/02/the-ultimate-co-hort-analysis-cheat-sheet/

References
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