The Accountant's Guide to **$ubscription Metrics**

ZOHO Subscriptions

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This ebook will give you an overview of important subscription metrics and how to utilize them to help your client's business.

Introduction

Have you heard about the subscription economy?

For most people, it's an unfamiliar term. But despite its obscurity, it's an extremely far-reaching concept. Most people don't realize that in the past decade or so, something has radically changed in the way we consume goods and services. We experience the subscription economy every single day, and don't even know it.

The subscription economy is simple: it's using a product or service on a subscription basis, i.e., paying every month, or year, or some other time interval. This is different from the traditional, "pay-per-product" model, where products and services exchange hands in a simple, one-time monetary transaction.

Examples are easy to find.

NETFLIX

Netflix offers a huge number of movies on-demand, essentially killing the concept of DVDs.

Spotify

Spotify lets you to listen to an unlimited amount of music for a monthly subscription.

And lately, subscription boxes (like Dollar Shave Club) have flooded the market, changing the way we use consumables. And that's just on the consumer side.

On the business side of things, examples are much more numerous. Not a single business shells out money for installed software any more, preferring to subscribe to SaaS-based (Software as a Service) cloud software on a subscription basis.

The advantages are clear:

1. You don't need to pay as much and you have a huge amount of flexibilty.

2. If you don't like a particular service, you can simply switch to another one.

Accounting has not caught up to the subscription economy

Despite the subscription economy taking over, many accountants have not caught up to the changes that have been brought about by the subscription economy.

Traditional accounting practices are often seriously outdated in terms of being able to measure the performance of a subscription-based business. A subscription-based business is so different from a pay-per-product business, both in terms of philosophy and function, that you need a whole new set of metrics to keep track of what's going on in the business.

So, why does the traditional accounting approach no longer hold up?

Here's the problem with traditional accounting

Instead of collecting all the money for a sale upfront, you collect the money in trickles over a period of time, causing a temporary state of loss, but eventual profitability.

At the heart of the subscription model is **delayed profitability.**

The traditional accounting view does not take delayed profitability into account at all. It does not look into the future, where all the profits lie. It is geared to look at the past, where one-time sales happened at discrete points in time, and profits are tied to those points.

That said, there *is* value in traditional accounting practices, especially for tax and public reporting. However, for purposes like ascertaining the health of your subscription business and its financial trajectory, traditional accounting practices just don't cut it. The metrics you need to analyze the health of a subscription business reflect an entire paradigm shift.

That's where subscription metrics come in.

The Solution: Subscription Metrics

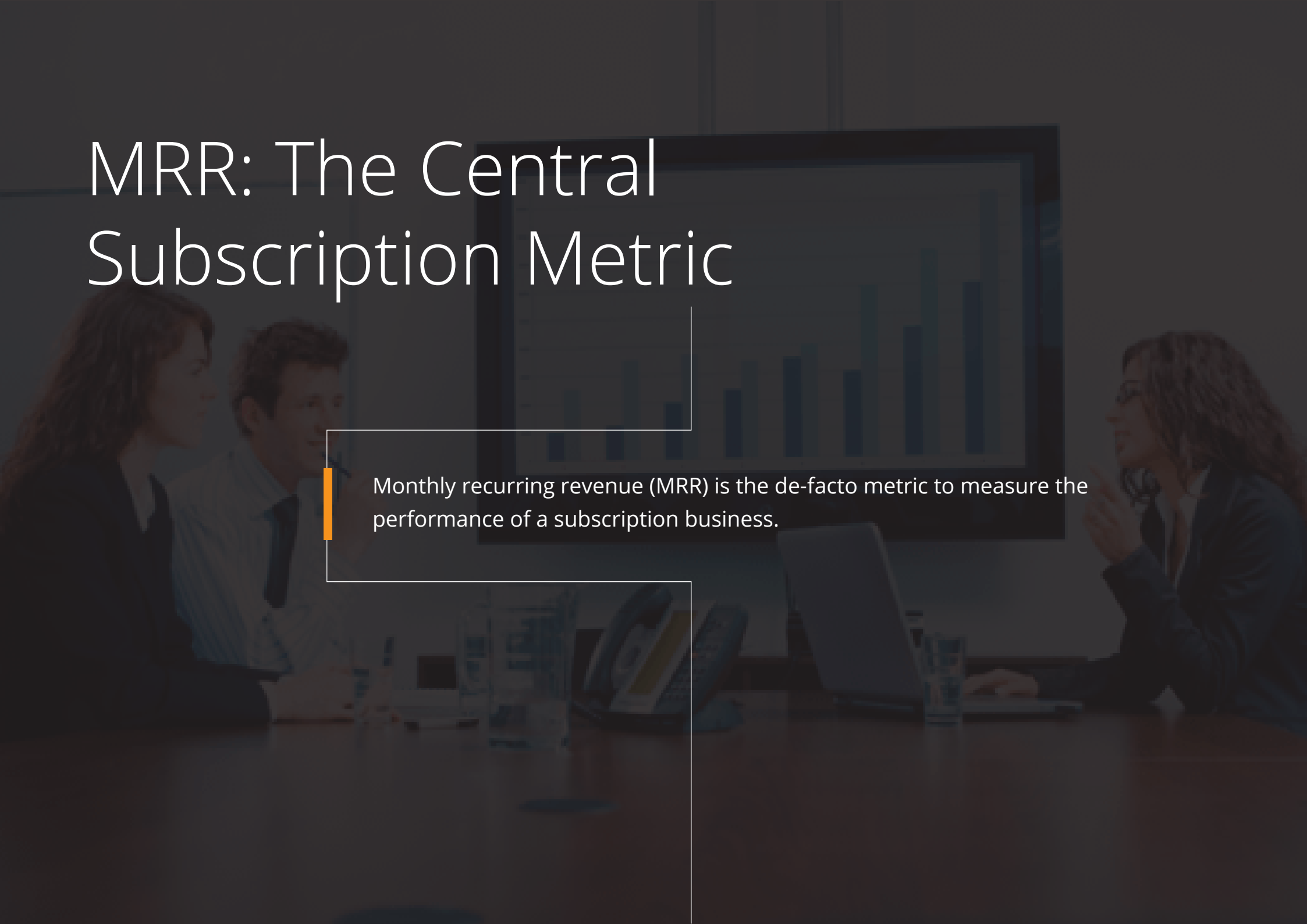
Subscription metrics are not just for any business. They are tailored specifically for the subscription model.

You need to be able to look at your subscription metrics and make financially sound decisions. By the time you’re done with this book, you'll have the ability to do just that.

These metrics do involve a fair bit of math, but don't let that scare you away! This isn't the seemingly useless math that you studied in high school. This is math with real-world implications - a powerful tool that you can make you a better accountant or businessperson.

All that said, let's go deeper into the rabbit hole.

MRR: The Central Subscription Metric



Monthly recurring revenue (MRR) is the de-facto metric to measure the performance of a subscription business.

A quick example: **A subscription business has ten customers. Five are on a $25/month plan, and five are on a $50/month plan.**

So the MRR is (25x5)+(50x5) = 125+250 = $375.

That's very simple to understand. However, some complexity arises when you offer annual plans, as well. It's typical for many subscription businesses to offer an annual plan that offers two months free, as opposed to a month-to-month plan. How do you account for revenue from annual plans into the MRR metric?

Here, we do something called *normalization,* which in this case is really just a fancy word for multiplication/division. To normalize revenue from annual plans, you simply divide the annual plan value by twelve, which brings it to a level comparable to the value of a monthly plan.

A quick example: **A subscription business has ten customers. Five are on a $240/year annual plan and five are on a $24/month plan. First, we normalize revenue from the annual plan by dividing it by 12.**

240 divided by 12 equals $20.

So, the MRR is (20x5) + (24x5) = 100 + 120 = $220.

Easy, right?

But, hey, what if you're offering three-month or six-month plans? What about two-year plans? And weekly plans? To calculate MRR for such billing periods, you simply divide the plan value by the number of months in the billing period. To calculate MRR for a three-month plan, you divide by three. For a six-month plan, you divide by six. For a two-year plan, you divide by twenty-four. And for a weekly plan, you multiply by four.

And that's Monthly Recurring Revenue (MRR).

Recurring revenue differs from actual billed revenue reported in standard accounting. What you report as recurring revenue will often be slightly different from the revenue reported in your financials, which is based on the Generally Accepted Accounting Principles, or GAAP.
This article from SaaS Optics is an valuable resource on how monthly recurring revenue differs from GAAP-reportable revenue for a month:
http://www.saasoptics.com/SaaS-opedia/saas-opedia/MRR/MRR.html

It's best practice to always report MRR for a calendar month, and not for an arbitrary month like "15th August - 15th September". This is called a "rolling metric" and a different number is reported every day. This normally introduces odd variations in the numbers that are not good for date-to-date comparison.

To assess performance, **always compare MRR from calendar month to calendar month.**

The MRR Equation

The entire math of monthly recurring revenue can be summarized in this one equation:

Net New MRR = New MRR + Expansion MRR - Churned MRR

What does this mean? Let's break it down.

- **New MRR** is the MRR gained from new customers acquired in the month.
- **Expansion MRR** is the MRR gained from *existing* customers in the month. This happens when an existing customer upgrades to a higher plan, purchases premium add-ons, etc.
- **Churned MRR** is the MRR lost from existing customers who leave you during the month. Inevitably, even if you have the best product and the best customer service in the world, a few customers are always going to leave you. Ideally, your ***churn rate*** (which is simply a percentage of churned MRR with respect to your existing MRR) should be less than five percent. This is a good standard for most businesses.

Put these numbers together, and you get ***Net New MRR.***

If it's positive, it means your business is growing. If it's negative, then this tells you there are other issues to consider.

We can also see how MRR changes from one month to the next with this equation:

MRR(n) + Net New MRR = MRR(n+1)

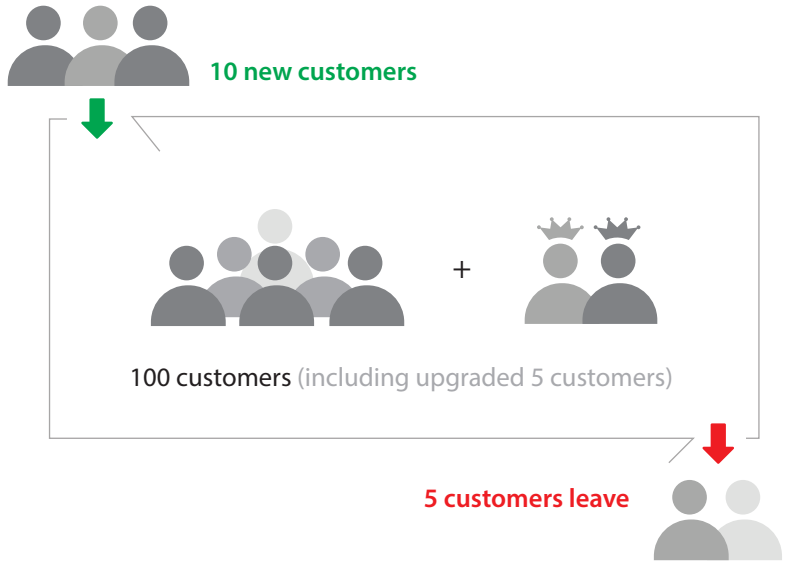
where *n* denotes the month.

A quick example: A subscription business has 100 customers paying $10 per month in January. Thus, MRR(n) is $1000. Five of these customers leave, and the business gets ten new customers. Plus, five of the existing customers upgrade to a $20/month plan.

Net New MRR = New MRR + Expansion MRR - Churned MRR
= $100 + $100 - $50
= $150

MRR(n+1) = MRR(n) + Net New MRR
= $1000 + $150
= $1150

All very simple, and very useful, as well.



Churn Rate: The Subscription Business Nemesis

Churn rate in simple terms is the percentage of customers leaving you.

Dive deeper to find if your churn rate is good or bad.

Churn rate is an extremely important metric for subscription business -- something that you should pay attention to religiously. Customer churn is very detrimental to a subscription business and can be disastrous if left uncontrolled.

Your monthly churn rate is simply the percentage of existing customers who leave you in the month. It's calculated like this:

$$\text{Churn Rate} = \frac{\text{Number of customers lost in the month (excluding customers who both joined and churned in the month)}}{\text{Number of customers at beginning of month}} \times 100$$

Ideally, for most businesses, it is healthy for the churn rate to remain below 5%, although it varies by industry, type of business, and other factors. The number shown above is your *customer churn* rate. Your *revenue churn* is calculated in a similar way, like so:

$$\text{Revenue Churn Rate} = \frac{\text{MRR lost in the month (excluding MRR lost from customers who both joined and churned in the month)}}{\text{MRR at beginning of month}} \times 100$$

Although the formulas shown here are extremely simple, far more complicated formulas are often used for churn rate. You can obtain quite a bit of information on this topic through online research.

The fundamental problem underlying these formulas is whether to include new customers (acquired in the time period) in the churn-rate calculation. This is the problem you'll see people dealing with when you read the varying opinions about the churn-rate formula. For a basic, yet effective, result, however, we simply exclude new customers from the calculation. From what we've seen, this is the most straightforward approach to obtaining the information we need.

Complexity arises in this formula when churn rate is calculated for customers with different billing periods (such as monthly and yearly).

In such cases, it is usually recommended to look at the churn rate separately for customers on different periods. You could potentially put them into the same number, but doing so would create more complexity and complications than you need or want to deal with.

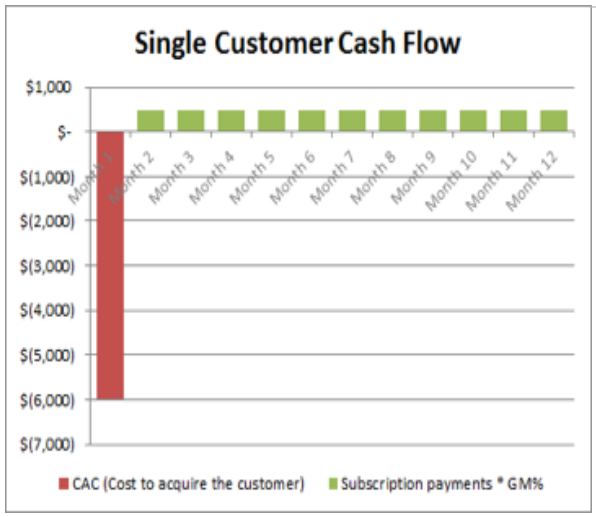
Getting to Profits

Traditional metrics are just not going to cut it when it's time to track profits for a subscription business. Understanding the subscription metrics will help you in this process.

Increasing your MRR is all fine and dandy, but what about costs? How much are you spending to get all that new MRR? Are you actually making a profit, or are you spending more money than you're making? At the very least, are you breaking even?

In a **traditional business**, this profit calculation is pretty simple: just subtract the buying price from your selling price.

In a **subscription business**, profit is not immediate. You may spend a lot of money to acquire a customer, but you won't get the money back immediately. To break even, the customer will have to stay with you for at least a few months before the MRR collected from the customer equals the cost incurred to acquire him.



In this example, the company spent $6000 to acquire a customer. **This is the CAC, or customer acquisition cost.** It gets back that money over a period of 12 months at $500 MRR.

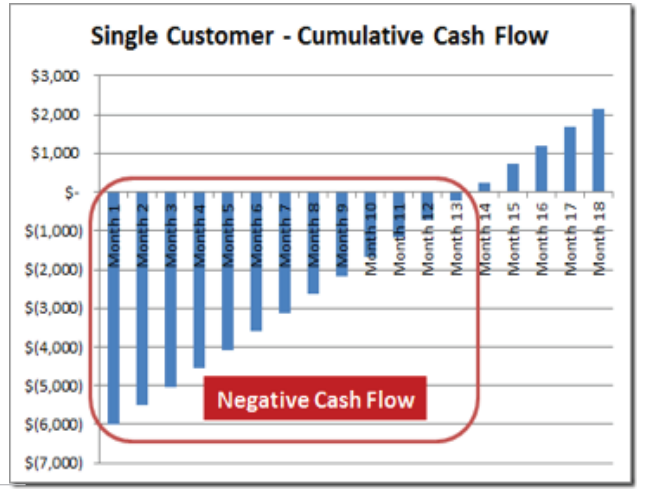
So for 12 months, the organization is in a state of loss (negative cash flow). Only after 12 months does the organization make a profit.

Source: SaaS Metrics 2.0 - http://www.forentrepreneurs.com/saas-metrics-2/

The expected number of months that the average customer is expected to stay with the organization is called **lifetime**, and the money expected to be paid over the period is called **lifetime value (LTV). Therefore, to make a profit, lifetime value needs to be greater than the customer acquisition cost.**

And that's how you make a profit with a subscription business.

Source: SaaS Metrics 2.0 - http://www.forentrepreneurs.com/saas-metrics-2/



Calculating Lifetime, ARPU and LTV

Lifetime is the **expected** number of months that you expect your average customer to stay with you. This is calculated from your churn rate.

Lifetime = 1 / Churn Rate

A quick example: **If your monthly churn rate is 2%, your customer lifetime is**

1 / (2/100) = 100/2 = 50 months

This formula might seem a bit too simple, but there's actually some math going on behind it. The formula is derived from a mathematical concept called a geometric series. This article from *SaaSOptics* tells you more about how the formula is derived:
http://www.saasoptics.com/SaaS-opedia/saas-opedia/Customer-LifeTime-Value-CLV/Customer-LifeTime-Value-CLV.html

To calculate Lifetime Value (LTV), simply multiply **lifetime** by the **average revenue per user** (ARPU), which is simply the average MRR per customer.

Average Revenue Per User = MRR / number of customers

Lifetime Value = Lifetime * ARPU

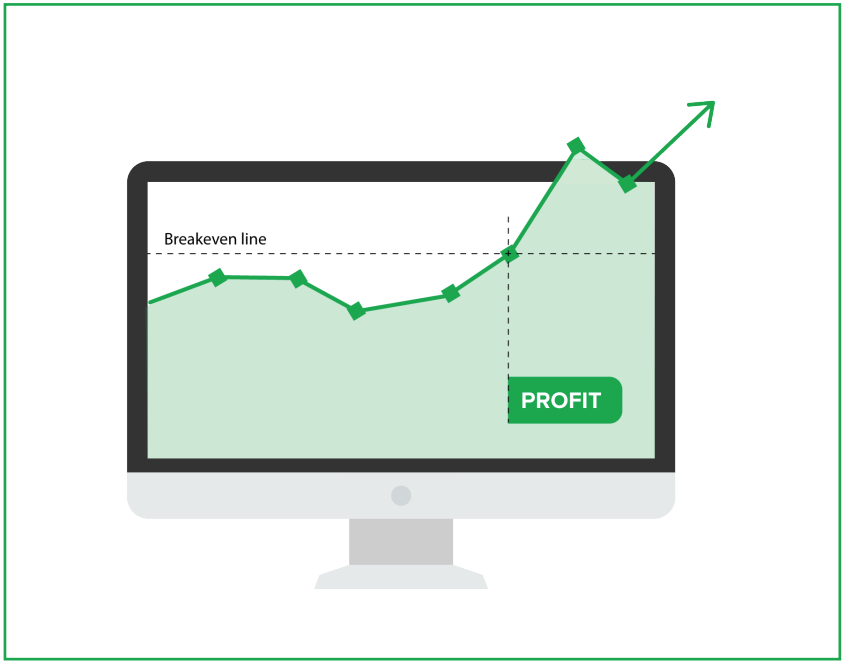
A quick example: **The customer lifetime of a subscription business is 50 months. The MRR is $5000 and the business has 50 customers.**

ARPU = 5000 / 50 = $100

Lifetime Value = 50 * 100 = $5000

The business would compare this lifetime value against its customer acquisition cost (CAC) to see if it's profitable. A business whose CAC is less than its LTV is not sustainable.

Although this is the most straightforward method to calculate LTV, it can often lead to estimates that are up to 2X greater than reality. So it helps to be conservative with your LTV estimate by dividing your standard measure by two. This article from venture capitalist Tomasz Tunguz is a great exploration of the complexities involved: http://tomtunguz.com/churn-fallacies/



Conclusion

Coming at these metrics all at once can be a bit overwhelming.

That's why you really need a tool that auto-calculates your subscription metrics, so that you can focus on interpreting them, instead of getting deep into manual calculations and analysis.

If you or your clients handle subscription billing with Zoho Subscriptions, we will calculate all your metrics for you. Plus, you can email us at any time if you need help understanding business numbers. We'll arm you with the right data and help you make important business decisions! You can try it out with a free test account here: https://www.zoho.com/subscriptions/

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