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How to build a successful SaaS business

Introduction

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Software-as-a-service (SaaS) is a billing and delivery model for software which is so superior to the traditional method for selling software licenses that it restructures businesses around itself This has led SaaS businesses to have a distinct body of practice. Unfortunately, many entrepreneurs discover this body of practice the hard way, by making mistakes that have been made before, rather than by spending their mistake budget on newer, better mistakes.

This shouldn't include you, so we'll take you through a whirlwind tour of the state of play of SaaS businesses. You should gain a better understanding of the SaaS business model, be able to anticipate whether to sell your product on a low-touch or high-touch model, and (if you're already operating a SaaS business) be able to evaluate its health and start improving it.

If you are a software entrepreneur, and you do not sell mobile applications (which have a separate billing model, imposed by the platforms' app stores), you should thoroughly understand the business of SaaS. This will let you make better decisions for your product (and company), allow you to see business-threatening problems months or years in advance of them being obvious, and help you in communicating with investors.

Why is SaaS taking over the world?

Customers love SaaS because it "just works." There is typically nothing to install to access it. Hardware failures and operational errors, which are extraordinarily common among machines which are not maintained by professionals, do not result in meaningful data loss. SaaS companies achieve availability numbers (for example, percent of time where the software is accessible and operating correctly) which materially improve upon the numbers achievable by almost every IT department (and every individual, full-stop).

SaaS also generally appears less expensive than software sold on other billing models, which matters for e.g. users who are not sure which software they should adopt over long terms, or who have only a short-term need for the software.

Developers love SaaS principally because of the delivery model, not the billing model. Most SaaS is developed continuously and run on the company's infrastructure. (There are significant exceptions in SaaS in the enterprise, but the overwhelming majority of B2C and B2B SaaS sold outside the enterprise is accessed over the internet from servers maintained by the software company.)

Software companies historically have not controlled the environments their code executes in. This is historically a major source of both development friction and customer support cases. All software deployed on customers' hardware suffers from differences in configurations of systems, interactions with other installed software, and operator error. This has to be both accounted for in development and dealt with as a customer services issue. Companies which sell their software on both SaaS and installable models frequently see 10+ times more support requests per customer from customers who install the software locally.

Businesses and investors love SaaS because the economics of SaaS are impossibly attractive relative to selling software licenses. Revenue from SaaS is generally recurring and predictable; this makes cash flows in SaaS businesses impressively predictable, which allows businesses to plan against them and (via investors) trade future cash flows for money in the status quo, which allows them to (generously) fund present growth. This has made SaaS companies into some of the fastest growing software companies in history.

SaaS sales models

There are, broadly speaking, two ways to sell SaaS. The selling model dictates almost everything else about the SaaS company and the product, to a degree which is shocking to first-time entrepreneurs. One of the classic mistakes in SaaS, which can take years to correct, is a mismatch between a product or market and the selected model to sell it on.

You will find that the sales model for SaaS defines much more about a product (and company) than other distinctions, like whether a company sells to customers (B2C) or businesses (B2B), whether it is bootstrapped or riding the VC rocket ship trajectory, or what technology stack it is built on.

Low-touch SaaS sales

Some products sell themselves.

Low-touch SaaS is designed for the majority of customers to purchase it without sustained one-on-one interaction with a human being. The primary sales channels are the software's website, email marketing, and (very frequently) a free trial for the software, with the trial being

aggressively optimised to be very, very low-friction to start, onboard, and successfully make sustained use of the SaaS.

Low-touch products sometimes involve sales teams, but they're frequently structured as so-called "Customer Success" teams, which are less focused on convincing people to buy the software and more on ensuring that users of the free trial successfully onboard and convert to paying users by the end of their trials.

Customer support in low-touch products is generally handled primarily in scalable fashions, by optimising the product to avoid incidents which would require human intervention, by creating educational resources which scale across the customer base, and by using humans as a last-resort. That said, many low-touch companies have excellent customer support teams. The economics of SaaS depend on the long-term satisfaction of customers, so even a product which expects only one ticket (a countable discrete interaction with a customer) every 20 customer-months might invest comparatively heavily in their CS team.

Low-touch SaaS is generally sold on a month-to-month subscription with price points clustering around $10 for B2C applications in the $20 to $500 range for B2B. This corresponds to an average contract value (ACV) of approximately $100 to $5k. The term ACV isn't commonly even used by low-touch SaaS businesses, which typically describe themselves by their monthly price points, but it is important to do comparisons to high-touch SaaS applications.

If you asked a low-touch SaaS entrepreneur for their most important metric, they would say MRR—monthly recurring revenue. Basecamp is the paradigmatic example of a low-touch SaaS business. Atlassian (which makes JIRA, Trello, Confluence, and several other products) is possibly the publicly-traded company with the most success with the model.

High-touch SaaS sales

Some customers need some help in deciding whether or how to adopt certain products. High-touch SaaS is designed around there being a human-intensive process to convince businesses to adopt the software, successfully operationalise it, and continue using it.

The beating heart of the organisation is almost always the sales teams, which are often broken down into specialised roles: sales development representatives (SDRs) who find prospects for the software, account executives (AEs) who own the sales process against particular customers, and account managers (AMs) who are responsible for the happiness and continued performance of an individualised portfolio of accounts.

The sales team is typically supported by marketing, whose primary job is generating a sufficient pipeline of qualified leads for the sales team to evaluate and close.

There are many truly excellent products sold on the high-touch model, but to a first approximation, engineering and product are generally considered less important in high-touch SaaS businesses than the sales engine is.

The organisation of customer support is highly variable across high-touch SaaS companies; a commonality is that it is generally expected to be heavily utilised. The number of tickets per account per period is expected to be orders of magnitude higher than it is in low-touch SaaS.

Note that while, in principle, one can make high-touch sales to consumers (for example, insurance has historically been sold primarily through commissioned agents), in SaaS, the overwhelming majority of high-touch businesses sell to businesses (B2B). Within B2B, there is a wide range of expected customer profiles, ACVs (defined variously as average contract value or annual contract value), and deal complexity.

On the low-end, SaaS sold to "small and medium sized businesses" (SMBs) on a high-touch model generally has an ACV of $6k to $15k, though this can range higher. The exact definition of an SMB varies heavily depending on who you ask; operationally, it is "any business with sufficient sophistication to successfully adopt software which costs $10,000", which probably excludes your local flower shop but includes a dental practice with 2 partners and 4 employees.

The high end is usually called "the enterprise" and targets extremely large businesses or governments. True enterprise deals start in the six figures; there is no ceiling. (There is a $70 million ACV customer in Inovalon's annual report, for example.)

If you asked a high-touch SaaS entrepreneur for their most important metric, they would say ARR—annually recurring revenue. (This is essentially all of the non-churned revenue of the company, minus certain non-recurring items such as one-time setup fees, consulting services, and similar. Since the economics of SaaS are attractive because of growth over time, one-off revenue, particularly comparatively low-margin one-off revenue, is not maximally interesting to entrepreneurs or investors.)

Salesforce is the paradigmatic example of a high-touch SaaS business, and they literally wrote the book on the model. Small high-touch SaaS businesses exist in multitudes, though they're less visible than low-touch SaaS businesses, principally because visibility is a customer acquisition strategy in low-touch SaaS and not always optimal in high-touch SaaS. For example, there are many small SaaS businesses which quietly make six or seven figures a year selling services to a tightly defined vertical.

Hybrid sales approaches

There exist companies which successfully run a low-touch and high-touch business with functionally the same product. They are exceedingly rare relative to SaaS businesses. The most common result of attempting both models simultaneously is that only one of the models

receives any traction, and (because these models weave themselves into all operations of the company) it typically strangles the other.

A more common form of hybridisation is adopting certain elements of the other sales model. For example, many low-touch SaaS businesses have customer success teams which, if you squint at them, look almost like inside sales. High-touch companies typically borrow fewer tactics than low-touch companies; the most common one is having a product that the company does not (materially) sell which they distribute in a low-touch fashion for the purpose of lead generation for the product the company actually sells.

The fundamental equation of SaaS

The SaaS model, fundamentally, works by financialising software: instead of selling software as a product with a sticker price, it sells the software as if it were a financial instrument, with a probabilistically forecastable cash flow.

There are more sophisticated ways to model a SaaS business, but the no-MBA required version just makes a few simplifying assumptions (like ignoring the time-value of money) and uses high-school math. If you only learn one thing about SaaS, learn this equation; it is the Rosetta Stone to understanding all material facts about a SaaS business.

$$\text{revenue} = \frac{\text{acquisition} * \text{conversion} * \text{ARPU}}{\text{churn}}$$

The core insight is really simple: one's revenue, over the long term, is the number of customers times the average lifetime revenue per customer.

The number of customers you get is a product of two factors: **acquisition** (how effective you are at attracting the attention of prospects in low-touch SaaS or identifying and getting in front of them in high-touch SaaS) times your conversion rate (the percent of prospects you convert into paying customers.)

The average lifetime revenue per customer (often called **lifetime value (LTV)**) is the product of how much they pay you for a particular period (such as one month) and how many periods they persist using your service.

The **average revenue per user (ARPU)** is simply the average revenue for an account over any particular period.

The **churn** is the percent of customers over a given period who do not continue paying for services. For example, if you have 200 customers pay you in January and only 190 of those pay you in February, the churn would be 5%.

The lifetime of a customer can, with a few simplifying assumptions, be calculated as the sum of an infinite geometric series; this works out to simply taking the inverse of churn. A product which loses 5% of its customers per month has an expected customer lifetime of 20 months; if it charges each customer $30 a month, it has an expected lifetime revenue of $600 per new customer signed up.

Implications of the SaaS business model

Improvements to a SaaS business are multiplicatively effective.

A 10% improvement to acquisition (via e.g. better marketing) and a 10% improvement to conversion rate (via e.g. product improvements or more effective sales techniques) sum to a 21% improvement (1.1 * 1.1), not a 20% improvement.

Improvements to a SaaS business are *incredibly* leveraged.

Because the margins in SaaS are so high, the long-term valuation of a SaaS business is effectively tied to some multiple of its long-term revenues. Thus, a 1% improvement in conversion rates doesn't simply mean a 1% increase in revenue next month or even over the long term… it implies a 1% increase in enterprise value of the company.

Price is the easiest lever to improve a SaaS business.

Acquisition, conversion, and churn often require major cross-functional efforts to improve. Pricing typically requires replacing a small number with a bigger one. (There exists enough nuance here that we wrote a guide to pricing SaaS.)

SaaS businesses eventually asymptote.

Given fixed acquisition, conversion, and churn, there will be a point at which one's business hits a revenue plateau. This is predictable in advance: the number of customers at the plateau is equal to acquisition times conversion divided by churn rate.

A SaaS business which loses ability to improve acquisition, conversion, or churn will, with almost mathematical certainty, stop growing. A SaaS business which stops growing before it can cover fixed costs (like e.g. salaries for the engineering team) dies ignominiously, *even if they did everything right.*

SaaS businesses can be capital-intensive to grow.

SaaS businesses have large front-loaded costs to grow, particularly when growing aggressively; marketing and sales dominates the marginal cost per customer and, often, the total expenditures

of the company. The marketing and sales costs attributable to a particular customer occur very early in that customer's lifecycle; the revenue to eventually pay for those costs comes later.

This means that a SaaS company optimising for growth will *almost always* spend more money in a given period than they collect from customers. The money spent has to come from somewhere. Many SaaS companies choose to fund the growth via selling equity in the companies to investors. SaaS companies are particularly attractive to investors because the model is very well-understood: create a product, achieve some measure of product-market fit, spend a lot of money on marketing and sales according to a relatively repeatable playbook, and eventually sell one's stake in the business to someone else (the public markets, an acquirer, or another investor looking for a de-risked business with good growth potential).

Margins, to a first approximation, don't matter.

Most businesses care quite a bit about their cost-of-goods-sold (COGS), the cost to satisfy a marginal customer. While some platform businesses (like AWS) have material COGS, at the typical SaaS company, the primary source of value is the software and it can be replicated at an extremely low COGS. SaaS companies frequently spend less than 5~10% of their marginal revenue per customer on delivering the underlying service.

This allows SaaS entrepreneurs to almost ignore every factor of their unit economics except customer acquisition cost (CAC; the marginal spending on marketing and sales per customer added). If they're quickly growing, the company can ignore every expense that doesn't scale directly with the number of customers (i.e. engineering costs, general and administrative expenses, etc), on the assumption that growth at a sensible CAC will outrun anything on the expenses side of the ledger.

SaaS businesses take a while to grow.

While tales of so-called "hockey stick" growth curves are common in the press, the representative experience of SaaS companies is that they take a very long time dialing in the product, marketing approaches, and sales approaches before things start to work very well. This has been referred to, memorably, as the Long Slow SaaS Ramp of Death.

Growth expectations vary widely in the SaaS industry.

Bootstrapped SaaS businesses often take 18 months before they're profitable enough to be competitive with reasonable wages for the founding team. After achieving that point, bootstrapped businesses have a wide range of acceptable outcomes for growth rates; 10~20% year over year growth rates in revenue can produce very, very happy outcomes for all concerned. Funded SaaS businesses are designed to trade cash for growth, which means they're designed to lose a lot of money upfront while perfecting their model; almost no funded SaaS business ever has failed at that goal.

After they perfect the model, they scale it, which generally results in losing more money, faster. That this is a successful outcome for the business is counterintuitive to many observers of the software industry. If the business can continue growing, there is no size of accumulated deficit that it cannot eventually repay. If growth does not happen, the business fails.

There exist many lower-stress businesses in life than SaaS companies being managed for aggressive growth; it's likened to riding a rocket ship, where you burn fuel aggressively to achieve acceleration and, by the way, if anything goes wrong you explode.

The rule of thumb for growth rate expectations at a successful SaaS company being managed for aggressive growth is 3, 3, 2, 2, 2: starting from a material baseline (e.g. over $1 million in annual recurring revenue (ARR)), the business needs to triple annual revenues for two consecutive years and then double them for three consecutive years. A funded SaaS business which consistently grows by 20% per year early in its life is likely a failure in the eyes of its investors.

Benchmarks to know

One of the most popular questions for SaaS founders is "Are my numbers any good?" This is surprisingly difficult to answer, because of the differences across industries, business models, stages of a company, and goals of founders. In general, though, experienced SaaS entrepreneurs have a few rules of thumb.

Low-touch SaaS benchmarks

Conversion rate:

Most low-touch SaaS uses a free trial, with the signup either requiring minimal information or a credit card that will be billed if the user doesn't cancel the trial. This decision dominates the character of the free trial: users who sign in to a relatively low-friction trial may not be very serious about evaluating the software and need to affirmatively decide to purchase the software later, while users who provide a credit card number generally have done more up-front research and are, essentially, committing to pay unless they affirmatively declare they are dissatisfied with the product.

This results in cosmically different conversion rates:

- substantially below 1%: generally evidence of poor product-market fit
- ~1%: roughly the baseline for competent execution
- 2%+: extremely good

Conversion rates of low-touch SaaS trials with credit card required:

- substantially below 40%: generally evidence of poor product-market fit
- 40%: roughly the baseline for competent execution
- 60%: doing well!

In general, requiring a credit card upfront will, on net, increase the number of new paying customers you get (it increases the trial-to-paying-customer conversion rate by more than it decreases the number of trials started). This factor reverses as a company gets increasingly sophisticated about **activating** free trial users (ensuring they make meaningful use of the software), typically via better in-product experiences, lifecycle email, and customer success teams.

Conversion rate (to trials):

You should measure your conversion rate between unique page views and trials started, but it isn't the most actionable metric in your company, and it is difficult to give a good guideline for your expectations driven from this number.

Conversion rate to the trial is incredibly sensitive to whether you are attracting high-quality visitors or not. Counterintuitively, companies which are better at marketing have lower conversion rates than companies which are worse at it.

The companies with better marketing attract many more prospects, including typically a larger percentage and absolute number of prospects who are not a good fit for the offering. Companies that are worse at marketing are only discovered by the cognoscenti of their markets, who tend to be disproportionately good customers; they're so dissatisfied with the status quo that they're actively searching for solutions, often intensely, and they're willing to use a no-name company if it is possibly better than their current situation. The rest of the market might not be actively looking for a solution right now, might be satisfied with going with well-known players or only those who show up prominently on Google, and might not be incentivised to take on vendor risk for dealing with a newer provider.

Churn rates:

In low-touch SaaS, most customers are on month-to-month contracts, and churn rates are quoted monthly. (Selling annual accounts is certainly a good idea, too, both for the upfront cash collected and because they have lower churn rates. When reporting churn, though, typically the impact of them is blended in to produce a monthly number.)

- 2%: a very sticky product, with strong product-market fit and substantial investments in reducing involuntary churn

- 5%: roughly where you expect to start
- 7%: you likely have either low-hanging fruit for preventing voluntary churn or are selling to a difficult market
- 10%+: Evidence of very poor product market fit and **an existential threat to the company**

Some markets structurally have higher churn than others: selling to "pro-sumers" or informal businesses such as freelancers exposes oneself to their high rate of exiting the business, which materially impacts churn rates. More established businesses fail far less frequently and have far less need to optimise their cash flows to the last $50.

Since higher price points preferentially select for better customers, increasing prices is **even more effective than entrepreneurs expect**: increasing prices by 25% can result in "accidentally" decreasing churn by 20%, simply by changing the mix of customers who buy the product. **This factor leads many, many low-touch SaaS businesses to march "upmarket" over time.**

High-touch SaaS benchmarks

High-touch SaaS businesses generally have much, much more heterogeneity with regards to both how they measure their conversion rates (largely due to differences in how they define an "opportunity") and in their realised conversion rates given similar definitions, due to differences in their industry, sales process, and so forth.

Churn rates, though, are closely clustered: roughly 10% *annualised churn* is reasonable for companies in their early years. 7% is an excellent churn rate. Note that mediocre high-touch SaaS businesses have materially lower churn rates than even the best low-touch SaaS businesses, structurally.

High-touch businesses often measure so-called "logo" churn (one business counts as one logo, regardless of how many units at that business use one's software, how many seats they use, what they are paying, etc) and revenue churn. This is less important in low-touch SaaS, as those churn rates tend to be quite similar.

Because high-touch SaaS businesses typically price their offerings such that they can increase the amount of revenue over the lifetime of a customer, by selling more seats or by offering additional products or similar, many of them track **net revenue churn**, which is the difference in revenue per cohort per year. The gold-standard for a high-touch SaaS business is negative net revenue churn: the impact of upgrades, increases in contract size on a year-to-year basis, and cross-selling to existing customers exceeds the revenue impact of customers deciding to terminate (or reduce) their use of the software. (Virtually no low-touch SaaS business achieves **net negative churn**; their churn rates are too high to outrun.)

Product/market fit

SaaS isn't just about the metrics. The hardest thing to put a number on early in the lifetime of a SaaS company is called **product/market fit**, a term coined by Marc Andreessen, which informally means "Have you found a group of people who love the thing you have built for them?"

Products which don't have product/market fit yet are plagued by relatively low conversion rates and high churn rates. Products which achieve product/market fit often accelerate their growth rates materially, have much higher conversion rates, and are generally more pleasant to work on.

Serial SaaS entrepreneurs often struggle to describe product/market fit other than to say "If you have it you will *know* that you have it, and if you have any doubt whether you have it, you do not." It's the difference between every sales conversation being you pushing a boulder up a hill and the customer practically pulling your hand off to get your software.

Many SaaS with product/market fit **did not launch with it**; it sometimes takes months or years of iterating to get there. The most important theme while iterating is to talk to many, many more customers than feels natural. Low-touch SaaS entrepreneurs can make an excuse to attempt to speak with *literally* every person who signs up for a free trial; the economics of this are unsustainable at the price point but *running a SaaS company without product/market fit is also unsustainable*, so it's entirely justified by how much you learn.

Achieving product/market fit isn't just a matter of listening to feature requests and building those features. It is also listening closely to the commonalities of your best customers and leaning in on them. This can result in changes to the marketing, messaging, and design of the product to more closely target the needs of the best customers.

Who are the "best" customers? Generally speaking, they're the segments (by industry, size, user profile, or similar) where you have high conversion rates, low churn rates, and (almost always) relatively higher ACV. By far the most common change in emphasis of low-touch SaaS businesses is to launch with a product which serves a wide spectrum of users at a wide spectrum of sophistication, and then double-down on one or two niches for their most sophisticated users.

For more information and tips visit Stripe.com/guides