Antler

Startup Metrics & Benchmarks

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Content

Metrics that matter in general for high-growth technology startups as well as for specific types of businesses

Metric benchmarks to aspire towards to qualify as a high performing technology company
- i.e. “what good looks like”

Relevant sources to deep dive into specific metrics and benchmarks for different type of companies

VC ladder of proof

NfX's Ladder of Proof focuses founders on providing quality proofpoints to VCs at different stages of their growth journeys.

Validating customer needs, acquiring and retaining active customers, and proving customer willingness to pay are key focus areas in the early days of company building to seek to establish Product-Market Fit.

Once Product-Market Fit has been established, the focus shifts towards proving scalability, that the business model makes sense financially (unit economics, CAC:LTV) and that rapid growth can be sustained. **This is when the focus shifts heavily towards metrics.**

Proven Product–Market Fit

Seeking Product-Market Fit

https://www.nfx.com/post/ladder-of-proof

Metrics covered

General Metrics	Metrics Focus by Sector
Engagement and retention	Enterprise SaaS
Growth	Marketplaces
Magic number	Hardware
Conversion	E-Commerce
Margins	Financial transactions
Customer acquisition cost	Enterprise software (non SaaS)
Burn multiple	Consumer subscription
Working capital ratio	Consumer social
Fundraising	...


ENGAGEMENT
& RETENTION

Why it matters: Engagement and retention

Why it matters

User engagement provides a signal whether users fundamentally derive value from a product or service. It also provides a relative measure for how sticky a service is by looking at how much time users spend on a product or service.

Retention looks at the longevity of usage. Cohort analysis is especially powerful to sort casual or short-term interest from long-term, repeat usage.

Customer retention

Definition

User Retention: the % of users who signed up and are still active (i.e. using the product, making a purchase, posting a photo) six months later (for these comparisons).

https://www.lennyrachitsky.com/p/what-is-good-retention-issue-29

Customer retention: Consumer social

Definition

- Consumer social media services that are free to use and generally supported by advertising
- The denominator in this category are registered users

Expert View

- Good 6-month customer retention: 25-30%
- Great 6-month customer retention: >45%

Examples

Company Benchmarks

- Facebook: 60 - 70% 6-month user retention
- Instagram: 50 - 60% 6-month user retention
- Snapchat: 33% 3-month user retention, 30% 24-month
- Twitter: 31% 3-month user retention, 22% 24-month

https://www.lennyrachitsky.com/p/what-is-good-retention-issue-29

Customer retention: Consumer transactional

Definition

- Consumer services that are generally supported by one-off purchases
- The denominator in this category are users who have made at least one transaction

Expert View

- Good 6-month customer retention: >30%
- Great 6-month customer retention: >50%

Examples

airbnb Uber Grab amazon intuit turbotax GRUBHUB Hotels.com

Company Benchmarks

- TurboTax: 77% 12-month customer retention
- Lyft: 22% 12-month customer retention

https://www.lennyrachitsky.com/p/what-is-good-retention-issue-29

Customer retention: Consumer SaaS

Definition

- Companies selling a monthly/yearly subscription to consumers
- The denominator in this category are users who have started a paid subscription.

Expert View

- Good 6-month customer retention: >40%
- Great 6-month customer retention: >60%

Examples

NETFLIX
Dropbox
Spotify
prime video
tv+
tinder

Company Benchmarks

- Amazon Prime: 93% 12-month customer retention
- Dropbox: ~80% 12-month customer retention
- Spotify: 72% 6-month customer retention
- Netflix: 66% 12-month customer retention
- Hulu: 53% 12-month customer retention

https://www.lennyrachitsky.com/p/what-is-good-retention-issue-29

Customer retention: SME / Midmarket SaaS

Definition

- Companies that primarily sell a subscription product to companies roughly 100-1000 employees
- The denominator in this category are companies who have started a paid subscription

Expert View

- Good 6-month customer retention: >60%
- Great 6-month customer retention: >80%

Examples

Company Benchmarks

- Atlassian: 98% 12-month customer retention
- Slack: 90-95% 12-month customer retention
- QuickBooks: 79% 12-month customer retention

https://www.lennyrachitsky.com/p/what-is-good-retention-issue-29

Customer retention: Enterprise SaaS

Definition

- Companies that primarily sell a subscription product to large enterprise companies (i.e. over 1000 employees)
- The denominator in this category are companies who have started a paid subscription

Expert View

- Good 6-month customer retention: >75%
- Great 6-month customer retention: >90%

Examples

Company Benchmarks

- Workday: 95% 12-month customer retention
- Salesforce: 90% 12-month customer retention
- ADP: 90%+ 12-month customer retention

https://www.lennyrachitsky.com/p/what-is-good-retention-issue-29

Revenue retention

Definition

Net Revenue Retention: a company's monthly recurring revenue (MRR) one year ago divided by the current month's MRR *from that same group of customers*. Essentially, the index of revenues derived from one cohort of customers one year later.

https://www.lennyrachitsky.com/p/what-is-good-retention-issue-29

Revenue retention benchmarks (same cohort +1 year)

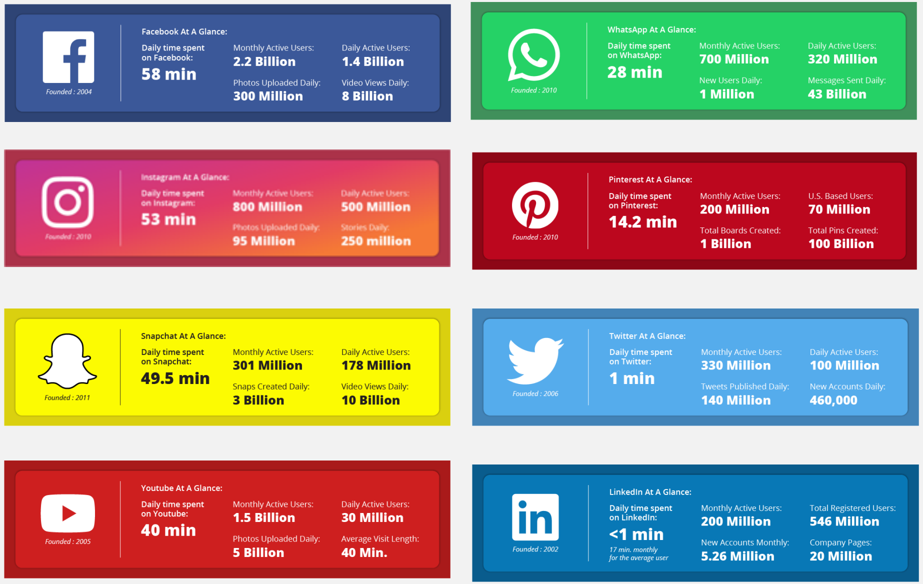
Consumer SaaS	Bottom-Up SaaS	Land and Expand SaaS	Enterprise SaaS
• Companies selling a monthly/yearly subscription to consumers.	• Companies that offer a self-serve prosumer subscription product to individual contributors inside of a company.	• Companies that sell a subscription service to companies with roughly 100 - 1000 employees.	• Companies that primarily sell a subscription product to large enterprise companies, roughly over 1000 employees
• Good 12-month revenue retention: >55%	• Good 12-month revenue retention: >55%	• Good 12-month revenue retention: >90%	• Good 12-month revenue retention: >110%
• Great 12-month revenue customer retention: >80%	• Great 12-month revenue customer retention: >80%	• Great 12-month revenue customer retention: >110%	• Great 12-month revenue customer retention: >130%
	• Twilio: 140-170% • Zoom: 140% • Slack: 135 - 155% • PagerDuty: 139% • Datadog: 130% • New Relic: 115% • Dropbox: ~100%	• Atlassian: 100-148% • Box: 130% • ZenDesk: 123% • SendGrid: 116%	• Alteryx: 135% • Fastly: 130% • Okta: 124% • Anaplan: 124% • Workday: 100%+ (source) • ServiceNow: 97%

https://www.lennyrachitsky.com/p/what-is-good-retention-issue-29

Stickiness of consumer internet services

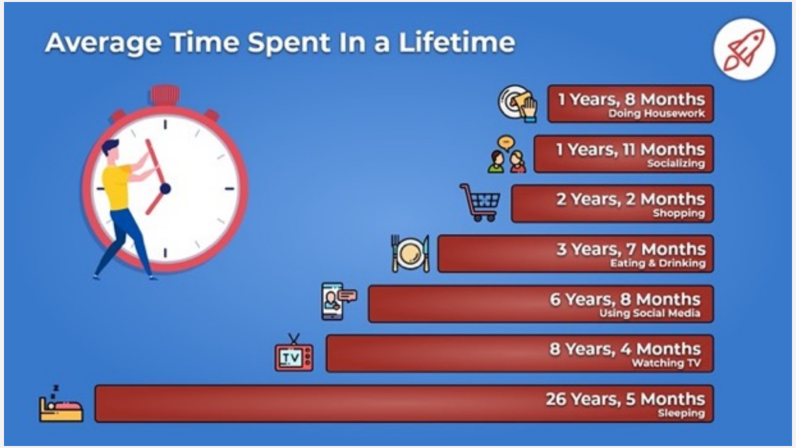
Today's entrepreneurs often have to compete for time with existing services as there are still only 24 hours in a day.

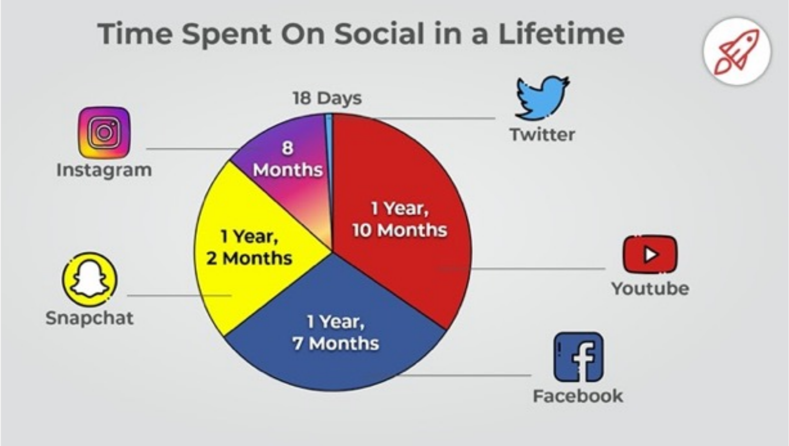
- North America: 2h 6 min
- South America: 3h 24 min
- Africa: 3h 19 min
- Europe: 1h 15 min
- Asia/Oceania: 2h 16 min



https://www.broadbandsearch.net/blog/average-daily-time-on-social-media

Stickiness of consumer internet services





https://www.broadbandsearch.net/blog/average-daily-time-on-social-media

Resources

a16z Podcast: The Basics of Growth — Engagement & Retention

with Andrew Chen, Jeff Jordan, and Sonal Chokshi

growth • metrics • network effects • all about network effects • Company Building 101 • consumer startups • driving with data • key startup metrics

Once you have users, how do you keep them engaged, retain them, and even "resurrect" or re-engage them? That's the focus of this episode of the a16z Podcast, which continues our series on the basics of growth from user acquisition to **engagement and retention** — covering, as always, key metrics and how to think about them. Especially as many products and platforms evolve over time, so do the users, some of whom may even use the product in different ways... so what does that mean for engagement, and how can startups analyze their users? "Show me the cohorts!" may be the new "show me the money"...

Featuring a16z general partners Andrew Chen and Jeff Jordan, in conversation with Sonal Chokshi, the discussion also covers everything from how network effects come in to play (is there really a magic number or "aha" moment for a product?) to who are the power users (and the power user curve for measuring, finding, and retaining them). Because at the end of the day, you don't want a leaky bucket that you're constantly trying to fill up. That doesn't work, and definitely won't scale.

https://a16z.com/2018/08/09/growth-engagement-retention/

What is GOOD and GREAT retention?

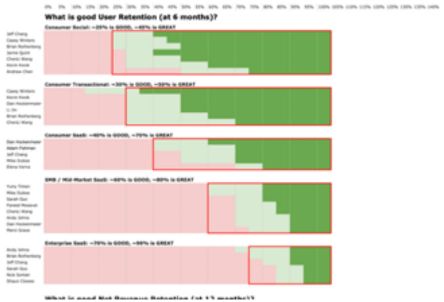
GOOD and GREAT User Retention

- **Consumer Social:** ~25% is GOOD, ~45% is GREAT
- **Consumer Transactional:** ~30% is GOOD, ~50% is GREAT
- **Consumer SaaS:** ~40% is GOOD, ~70% is GREAT
- **SMB / Mid-Market SaaS:** ~60% is GOOD, ~80% is GREAT
- **Enterprise SaaS:** ~70% is GOOD, ~90% is GREAT

GOOD and GREAT Net Revenue Retention

- **Consumer SaaS:** ~55% is GOOD, ~80% is GREAT
- **Bottom-Up SaaS:** ~100% is GOOD, ~120% is GREAT
- **Land and Expand VSB SaaS:** ~80% is GOOD, ~100% is GREAT
- **Land and Expand SMB / Mid-Market SaaS:** ~90% is GOOD, ~110% is GREAT
- **Enterprise SaaS:** ~110% is GOOD, ~130% is GREAT

Here's a handy visual guide, which links to a high-res PDF:



https://www.lennyrachitsky.com/p/what-is-good-retention-issue-29

GROWTH

Why it matters: Growth

Why it matters?

The growth rate of a startup is a good sign of whether a company has found product-market fit and and is capable of scaling the customer base with all associated challenges across customer acquisition, customer service and technical platforms.

Paul Graham, the founder of Y Combinator, has even suggested that a startup is an experiment to unlock growth.

Growth is essential in many markets and especially in those with strong network effects creating “winner takes all” monopolies or oligopolies.

A good growth rate during YC is 5-7% a week. If you can hit 10% a week you're doing exceptionally well. If you can only manage 1%, it's a sign you haven't yet figured out what you're doing.

We usually advise startups to pick a growth rate they think they can hit, and then just try to hit it every week. The key word here is "just." If they decide to grow at 7% a week and they hit that number, they're successful for that week. There's nothing more they need to do. But if they don't hit it, they've failed in the only thing that mattered, and should be correspondingly alarmed.

Programmers will recognize what we're doing here. We're turning starting a startup into an optimization problem. And anyone who has tried optimizing code knows how wonderfully effective that sort of narrow focus can be.

PAUL GRAHAM
Y COMBINATOR

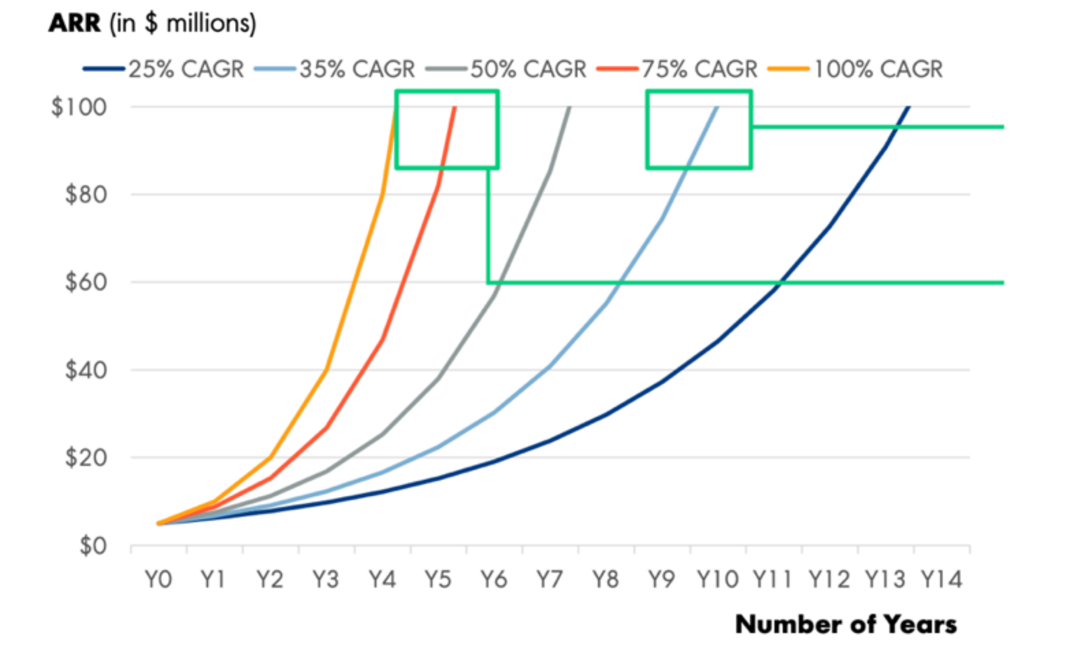
The magic of compound growth

- Seemingly small differences in weekly growth rates, yield dramatic differences in yearly overall revenue growth
- Going from 2% to 5% weekly growth, represents a revenue increase from 2.8x to 12.6x
- Going from 7% to 10% weekly growth, represents a revenue increase from 33.7x to 142.0x
- Compounded growth is difficult to grasp for most humans

Weekly Growth Rate	Yearly Revenue Growth
1%	1.7x
2%	2.8x
5%	12.6x
7%	33.7x
10%	142.0x

http://www.paulgraham.com/growth.html

Compound growth rates and time to USD 100 million ARR



- With a CAGR of 35%, it takes 10 years for a company to grow from USD 5 million to USD 100 million in ARR.
- With a CAGR of 75%, it would only take 5 years to grow from USD 5 million to USD 100 million in ARR.
- Slack completed that growth journey in only 2.5 years becoming one of the fastest software companies to scale

https://cdn2.hubspot.net/hubfs/366266/Expansion%20SaaS%20Benchmarking%20Study%20-%20Full%20Report.pdf

Resources

Startup = Growth

Want to start a startup? Get funded by Y Combinator.

September 2012

A startup is a company designed to grow fast. Being newly founded does not in itself make a company a startup. Nor is it necessary for a startup to work on technology, or take venture funding, or have some sort of "exit." The only essential thing is growth. Everything else we associate with startups follows from growth.

If you want to start one it's important to understand that. Startups are so hard that you can't be pointed off to the side and hope to succeed. You have to know that growth is what you're after. The good news is, if you get growth, everything else tends to fall into place. Which means you can use growth like a compass to make almost every decision you face.

Redwoods

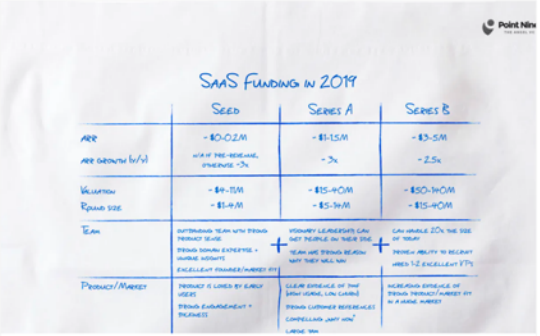
Let's start with a distinction that should be obvious but is often overlooked: not every newly founded company is a startup. Millions of companies are started every year in the US. Only a tiny fraction are startups. Most are service businesses — restaurants, barbershops, plumbers, and so on. These are not startups, except in a few unusual cases. A barbershop isn't designed to grow fast. Whereas a search engine, for example, is.

When I say startups are designed to grow fast, I mean it in two senses. Partly I mean designed in the sense of intended, because most startups fail. But I also mean startups are different by nature, in the same way a redwood seedling has a different destiny from a bean sprout.

http://www.paulgraham.com/growth.html

What does it take to raise capital, in SaaS, in 2019?

Christoph Janz Follow
Jun 25, 2019 · 6 min read ★



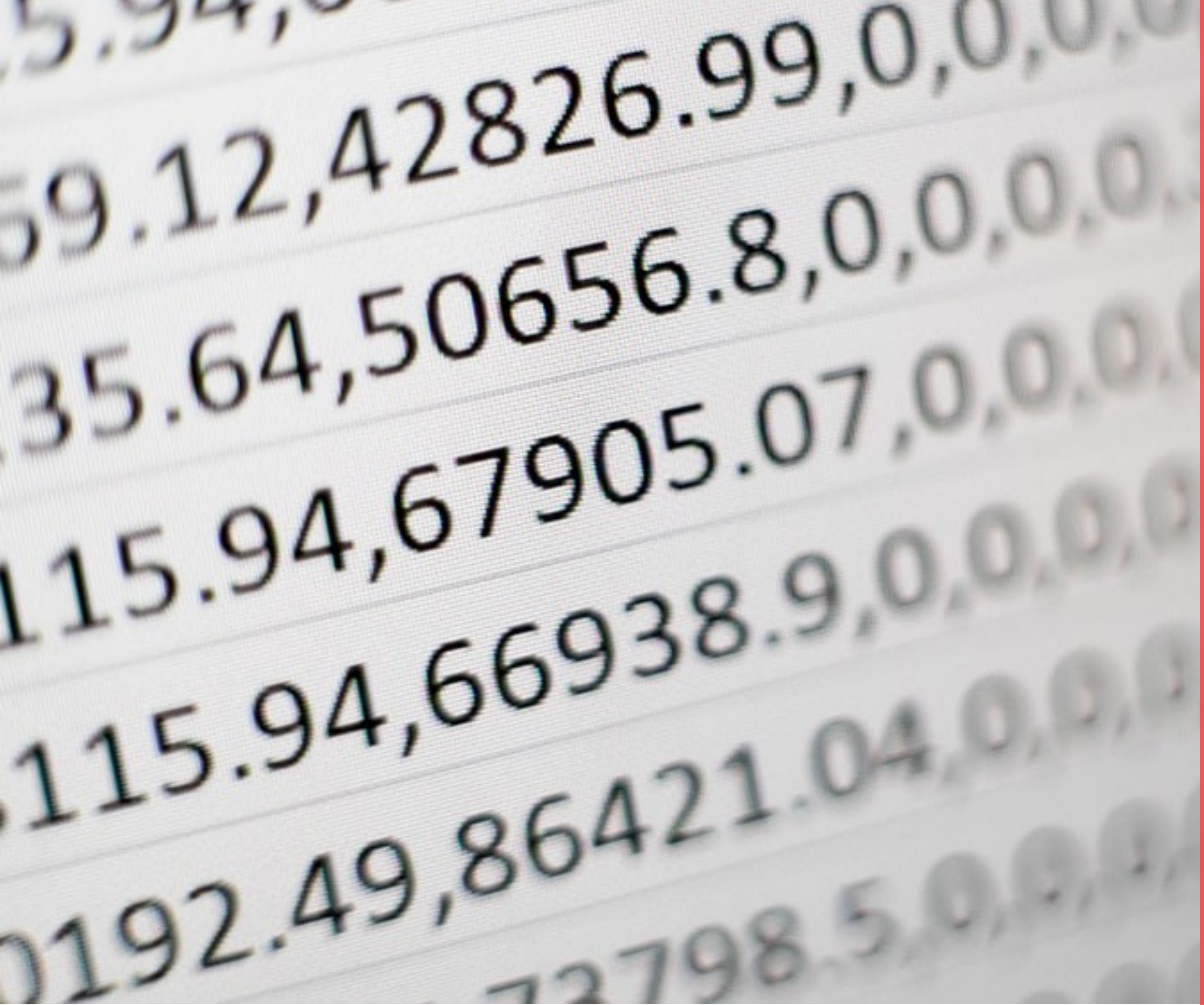
SaaS Funding Napkin 2019

What does it take to raise capital, in SaaS, in 2019?

▲ 387

👈In case you like the napkin ... upvoting is free. :-)

https://medium.com/point-nine-news/what-does-it-take-to-raise-capital-in-saas-in-2019-26829debef29



MAGIC NUMBER

Why it matters: Magic number

Why it matters?

Sales efficiency metrics measure the sales and marketing expenses required to grow revenues. A company spending little, to grow a lot, has likely found <u>both</u> product-market fit and channel-product fit.

VCs look at these measures to weed out startups that have resource inefficient conversion engines – i.e. that are destroying rather than creating value.

Magic number

- The “Magic Number” is a measurement of sales efficiency
- It is simpler to calculate than CAC (no allocation needed between variable versus fixed costs) and LTV (no churn data over time is needed)
- Note that for B2B companies, the magic number sometimes falls over time as the company transitions from initial founder led sales to salespeople whose salaries are 100% allocated to sales & marketing. Founder led sales often underestimate the real customer acquisition cost

Magic Number Formula

$$\frac{\text{(Current Quarter's Revenues – Previous Quarter's Revenues)*4}}{\text{Previous Quarter's Sales \& Marketing Expenses}}$$

Magic Number Benchmarks

Magic Number <0.5	not ready to invest in growth
Magic Number >0.75	good
Magic Number >1	great

https://www.thesaascfo.com/calculate-saas-magic-number/

Bessemer's CAC Ratio

- Unlike the Magic Number, Bessemer's CAC ratio adjusts for gross margin to provide a better view of the genuine financial contribution of a product

Bessemer's CAC Ratio Formula

$$\frac{\text{(Current Quarter's Newly Signed Annual Account Value x Gross Margin)}}{\text{Previous Quarter's CAC}}$$

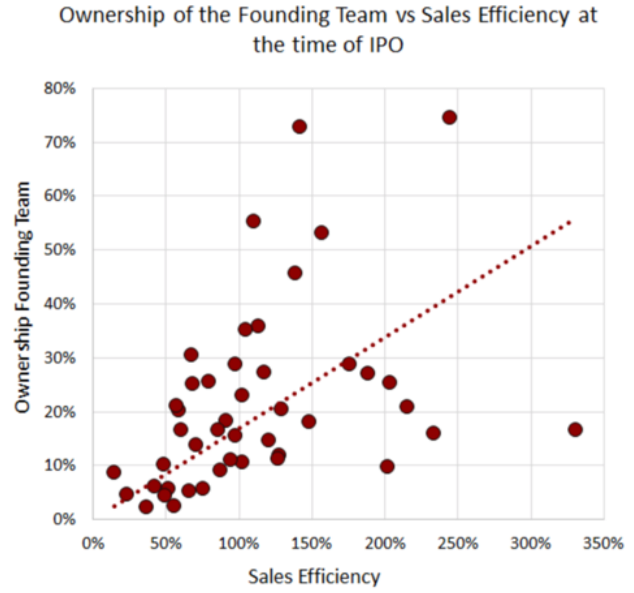
Bessemer CAC Ratio Benchmarks

CAC ratio <1	evaluate
CAC ratio >1	scale sales and marketing

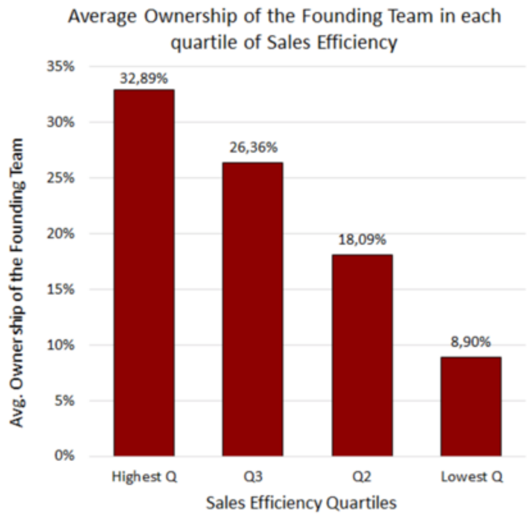
https://www.thesaascfo.com/calculate-saas-magic-number/

High sales efficiency is beneficial for founders

Founders of companies with high sales efficiency own more of their companies at the time of their IPO



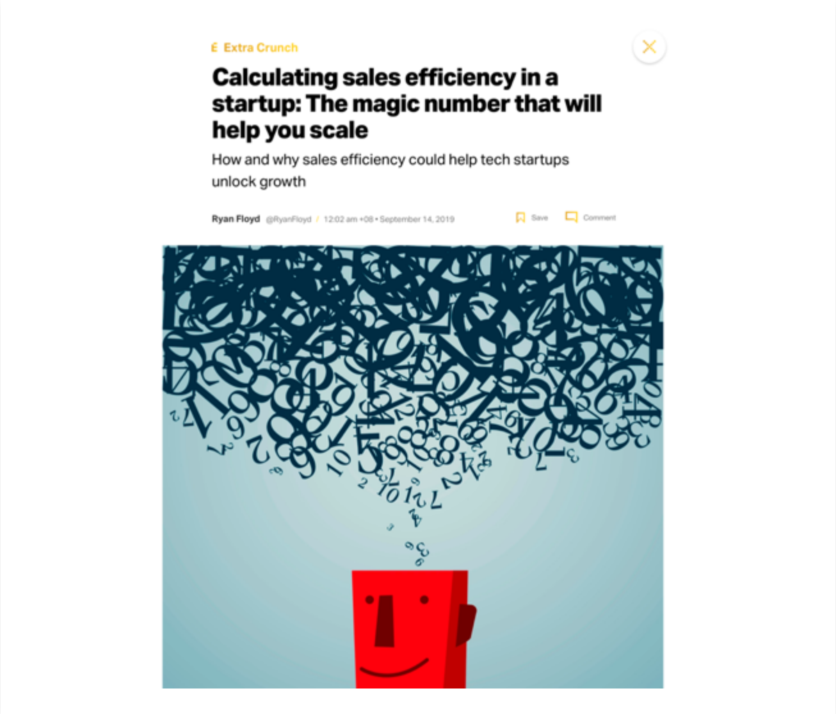
Ownership of the founding team at IPO as a function of sales efficiency



Avg. ownership of the founding team in each quartile of sales efficiency. The companies are divided in quartiles of sales efficiency and the average ownership of the founding team at IPO of each group is plotted. Thresholds of the sales efficiency quartiles: 139%, 98%, 66%

https://medium.com/nauta-capital/why-capital-efficiency-matters-analysis-from-48-publicly-traded-saas-companies-83052ec069c2

Resources



Extra Crunch

Calculating sales efficiency in a startup: The magic number that will help you scale

How and why sales efficiency could help tech startups unlock growth

Ryan Floyd @RyanFloyd / 12:02 am +08 • September 14, 2019 Save Comment

https://techcrunch.com/2019/09/13/calculating-sales-efficiency-in-a-start-up-the-magic-number-that-will-help-you-scale/

How to Calculate the SaaS Magic Number

Posted on November 4, 2016 by Ben

Sales Efficiency Metrics – SaaS Magic Number and More

As a CFO, the balance between sales and marketing spend and new ARR or MRR creation is critically important to measure and monitor. Over invest in sales and marketing relative to your new SaaS bookings and will you not the see the expected margin expansion or cash creation.

Conversely, under investing in sales and marketing when you have achieved the correct product/market fit and you will miss out on opportunities for growth. Therefore, it's important to calculate the SaaS Magic Number and other sales efficiency metrics to determine your sales health.

https://www.thesaascfo.com/calculate-saas-magic-number/

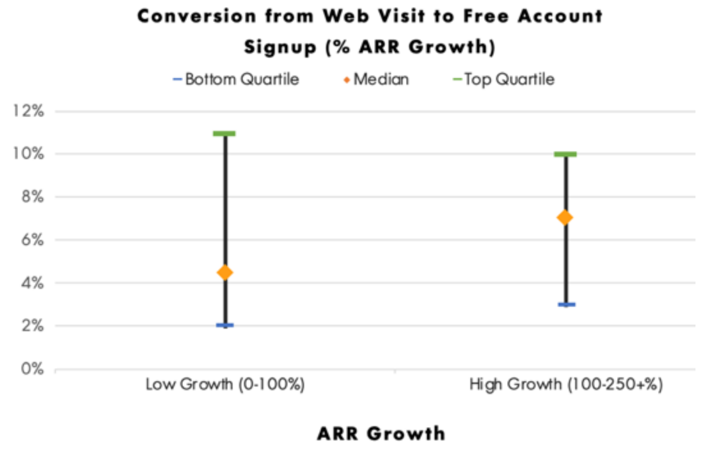

CONVERSION

Why it matters: Conversion

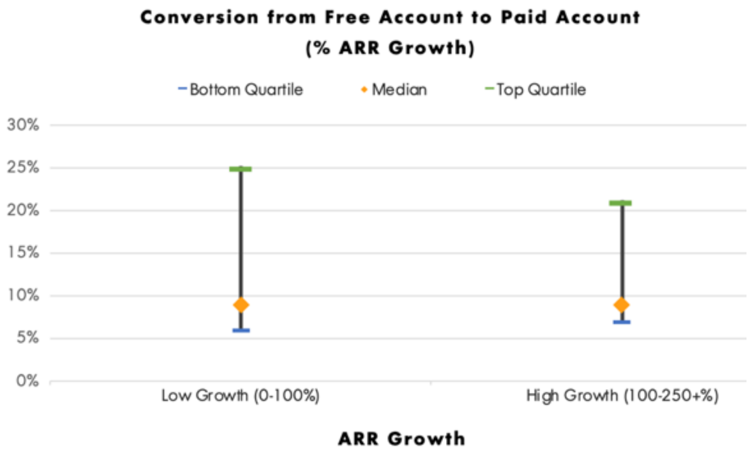
Why it matters?

Conversion metrics focus on how efficient the sales and marketing funnel is. Particularly useful for companies selling through the web needing to first convert traffic to registered users and then to paying users.

Web visit -> Free accounts -> Paid account conversion



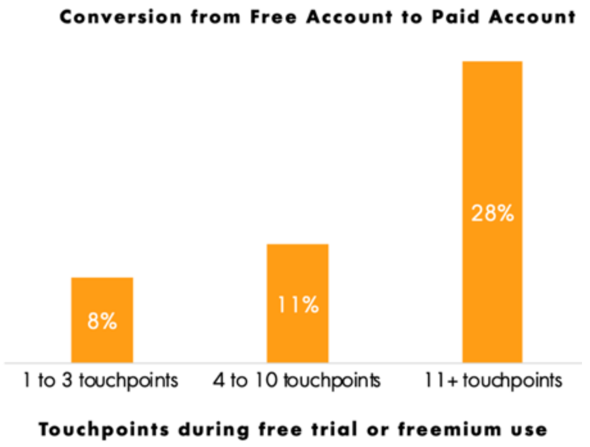
- For “freemium” / “free trial” products, lead generation is focused around generating a wide top of the funnel
- High growth companies are showing 3-10% conversion from web visits to free accounts



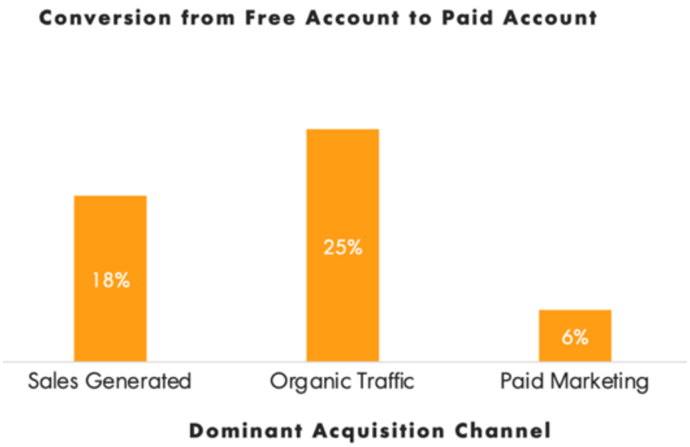
- High growth companies are showing 7-21% conversion from free accounts to paid accounts measured over a 12-month period in cohort analysis

https://f.hubspotusercontent10.net/hubfs/366266/2020_SaaSProductBenchmarks.pdf

Multi touchpoints drive conversion



- It pays to hustle hard across multiple touchpoints
- 11+ touchpoints with prospects had a 2x higher sales conversion



- Organic traffic has much higher conversion to paid accounts compared to other channels
- Paid marketing has only ¼ of the conversion of organic traffic (i.e. explains HubSpot's content strategy)

https://f.hubspotusercontent10.net/hubfs/366266/2020_SaaSProductBenchmarks.pdf

SAAS metrics by revenues

- YoY ARR growth reduces with size
- Sales & Marketing expenses proportionally increase with size
- R&D expenses proportionally decrease with size
- CAC Payback increases with size and funding (i.e. can afford longer CAC payback when well capitalized)

	<$1M	$1-2.5M	$2.5-10M	$10-20M	$20-50M	>$50M
SIZE AND GROWTH						
Employees	**8** (4-15)	**25** (14-40)	**47** (30-70)	**100** (77-149)	**180** (147-269)	**555** (385-752)
Funding	**$3M** ($1-3M)	**$3M** ($3-9M)	**$8M** ($3-15M)	**$28M** ($15-43M)	**$63M** ($31-88M)	**$88M** ($28-100M)
YoY Growth Rate	**80%** (15-125%)	**80%** (30-165%)	**50%** (30-100%)	**42%** (22-78%)	**40%** (20-61%)	**29%** (10-40%)
FINANCIAL						
Sales & Marketing Spend	**30%** (15-50%)	**30%** (20-46%)	**35%** (20-50%)	**40%** (24-58%)	**42%** (31-55%)	**38%** (15-48%)
R&D Spend	**50%** (30-80%)	**48%** (30-60%)	**30%** (20-41%)	**30%** (22-39%)	**30%** (20-40%)	**20%** (15-30%)
Subscription Revenue	**90%** (59-100%)	**93%** (85-100%)	**90%** (80-100%)	**90%** (80-95%)	**94%** (80-98%)	**90%** (80-98%)
Monthly Burn Rate ($ in 000s)	**$50** ($50-175)	**$50** ($50-175)	**$175** ($0-375)	**$375** ($50-625)	**$375** ($0-1,025)	**$50** ($<0-1,063)
SAAS VALUE DRIVERS						
CAC Payback (months)	**5** (2-11)	**8** (5-11)	**11** (8-15)	**15** (11-21)	**15** (8-15)	**15** (3-15)
Logo Retention	**90%** (75-100%)	**90%** (78-98%)	**90%** (80-95%)	**88%** (80-95%)	**89%** (75-95%)	**88%** (80-94%)
Net Dollar Retention	**100%** (83-106%)	**100%** (82-113%)	**100%** (90-110%)	**95%** (90-105%)	**102%** (96-110%)	**97.5%** (89-101%)
DIVERSITY						
Women in Leadership	**10%** (0-33%)	**25%** (0-40%)	**20%** (10-33%)	**25%** (19-39%)	**25%** (20-40%)	**29%** (16-43%)

https://cdn2.hubspot.net/hubfs/366266/OpenView%202019%20SaaS%20Benchmarks%20Report.pdf

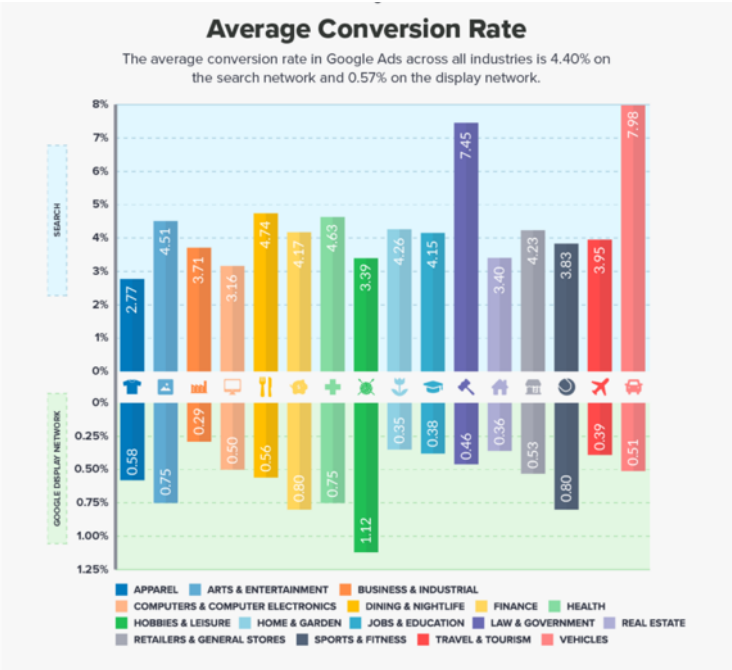
Product led growth sales tactics

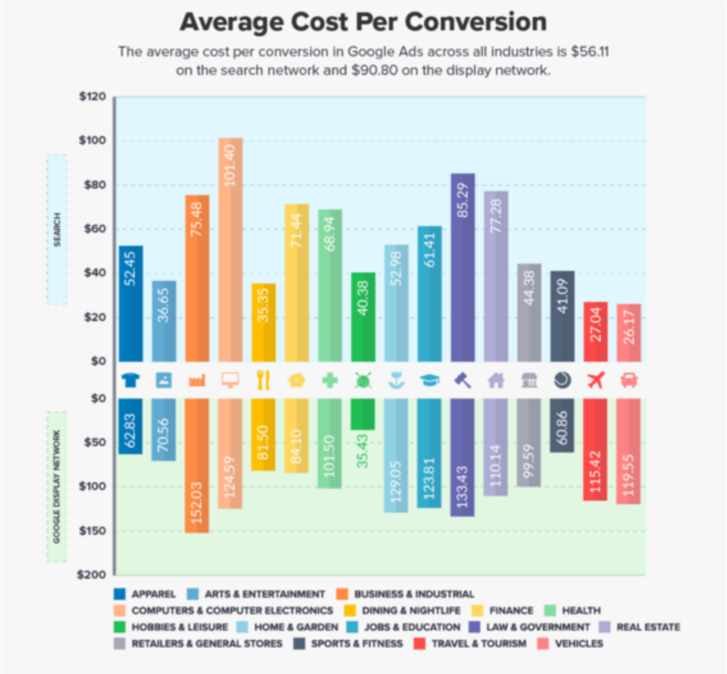
- For product-led growth companies (PLG), free trials is the most commonly adopted sales tactic
- Also common for PLG companies to have self-service to enable them to grow profitably even at modest monthly subscription charges
- However, only 1/3 of sampled software companies reported PLG being central to their strategy

	PLG Companies	All Companies
Free trial offering	74%	45%
Product analytics for decision making	67%	31%
Self service buying experience	61%	28%
Bottoms-up sales	55%	31%
Product qualified leads	53%	29%
Referral programs	50%	31%
Dedicated growth FTEs	47%	27%
Freemium offering	38%	18%

https://cdn2.hubspot.net/hubfs/366266/OpenView%202019%20SaaS%20Benchmarks%20Report.pdf

Google search and Google display network conversion rate / costs





https://www.wordstream.com/blog/ws/2019/08/19/conversion-rate-benchmarks

E-mail marketing conversion rates (1)

Data Source

Klaviyo reviewed the email performance of more than 18,000 customers, across 13 different industries, during the full 2018 calendar year,

Campaign Industry Performance

METRIC	FORMULA
Open Rate (Open)	Opens/Number of Emails Delivered
Clickthrough Rate (CTR)	Clicks/Number of Emails Delivered
Conversion Rate (Conversion)	Orders Placed/Number of Emails Delivered
Revenue Per Recipient (RPR)	Revenue/Number of Emails Delivered
Average Order Value (AOV)	Revenue/Orders Placed

Campaign Industry Performance

INDUSTRY	OPEN	CTR	CONVERSION	RPR	AOV
Animal & Pet Care	12.60%	1.10%	0.08%	$0.05	$57.88
Arts & Crafts	14.20%	1.80%	0.13%	$0.13	$98.51
Automobile & Parts	15.80%	1.60%	0.08%	$0.17	$220.71
Beauty & Cosmetics	10.80%	1.00%	0.10%	$0.06	$65.81
Computers, Electronics & Acc.	13.80%	1.10%	0.06%	$0.05	$77.23
Fashion & Apparel	11.40%	1.30%	0.08%	$0.08	$96.83
Food & Beverage	12.60%	1.10%	0.16%	$0.15	$93.67
Garden & Home Goods	12.20%	1.10%	0.08%	$0.09	$116.79
Health & Fitness	12.50%	1.20%	0.15%	$0.09	$60.61
Jewelry & Accessories	11.60%	1.20%	0.09%	$0.07	$75.22
Media & Entertainment	17.30%	1.90%	0.09%	$0.03	$29.06
Outdoor & Wilderness Gear	14.60%	2.50%	0.09%	$0.10	$113.54
Toys & Games	13.10%	1.80%	0.11%	$0.14	$129.11
AVERAGE ACROSS INDUSTRIES	11.81%	1.24%	0.09%	$0.08	$86.07

https://www.klaviyo.com/blog/ecommerce-industry-performance-benchmarks

E-mail marketing conversion rates (2)

Automated Welcome E-mails

INDUSTRY	OPEN	CTR	CONVERSION	RPR	AOV
Animal & Pet Care	17.60%	3.10%	0.71%	$0.31	$43.71
Arts & Crafts	27.00%	5.50%	4.24%	$2.90	$68.57
Automobile & Parts	25.40%	6.10%	2.84%	$6.69	$235.70
Beauty & Cosmetics	32.80%	6.60%	3.83%	$1.99	$51.88
Computers, Electronics & Acc.	24.70%	3.60%	2.04%	$1.42	$69.50
Fashion & Apparel	26.00%	4.90%	3.47%	$3.27	$94.20
Food & Beverage	26.80%	5.50%	2.31%	$1.56	$67.60
Garden & Home Goods	25.40%	4.90%	3.09%	$5.58	$180.43
Health & Fitness	26.20%	4.90%	3.02%	$2.24	$74.03
Jewelry & Accessories	25.10%	4.60%	2.53%	$2.29	$90.48
Media & Entertainment	20.30%	2.30%	2.70%	$1.07	$39.52
Outdoor & Wilderness Gear	32.10%	7.60%	2.54%	$3.36	$132.35
Toys & Games	28.10%	5.50%	5.19%	$3.40	$65.53
AVERAGE ACROSS INDUSTRIES	26.50%	5.10%	3.04%	$2.71	$89.21

Automated Abandoned Shopping Carts

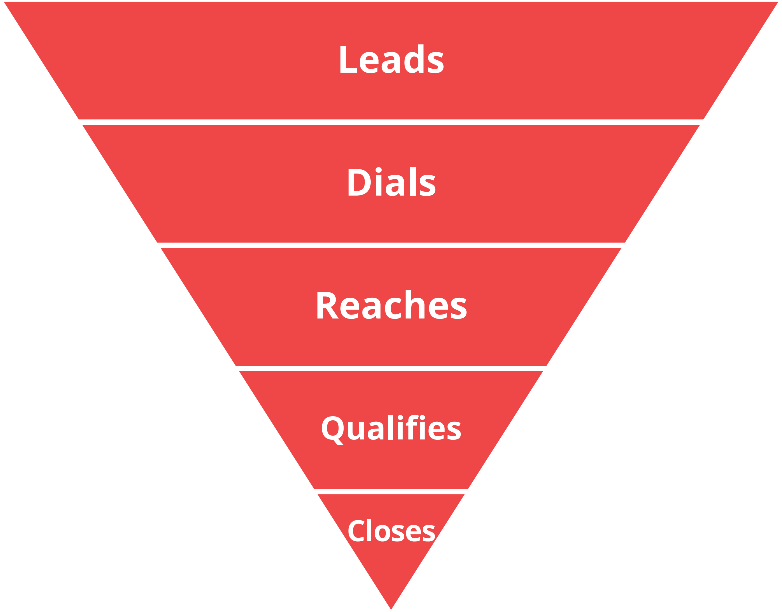
INDUSTRY	OPEN	CTR	CONVERSION	RPR	AOV
Animal & Pet Care	21.30%	5.10%	3.06%	$2.24	$73.12
Arts & Crafts	29.10%	8.70%	7.63%	$6.95	$91.03
Automobile & Parts	32.20%	8.80%	10.44%	$29.82	$285.78
Beauty & Cosmetics	25.80%	5.20%	3.31%	$2.17	$65.53
omputers, Electronics & Acc.	23.50%	5.30%	3.59%	$3.59	$99.89
Fashion & Apparel	18.40%	4.10%	2.31%	$1.90	$82.18
Food & Beverage	33.20%	9.10%	7.99%	$7.33	$91.66
Garden & Home Goods	18.20%	4.5%	2.76%	$3.95	$143.22
Health & Fitness	28.00%	6.60%	6.02%	$6.39	$106.11
Jewelry & Accessories	19.40%	4.30%	2.42%	$1.94	$80.14
Media & Entertainment	36.40%	10.40%	7.76%	$8.69	$112.10
Outdoor & Wilderness Gear	29.60%	10.50%	8.82%	$9.06	$102.68
Toys & Games	21.90%	6.20%	5.33%	$4.49	$84.18
'ERAGE ACROSS INDUSTRIES	20.50%	4.60%	2.86%	$2.58	$90.31

Automated Winback E-mails

INDUSTRY	OPEN	CTR	CONVERSION	RPR	AOV
Animal & Pet Care	13.90%	1.80%	1.20%	$0.59	$49.43
Arts & Crafts	24.00%	5.40%	2.97%	$1.99	$67.08
Automobile & Parts	15.70%	0.70%	0.08%	$0.13	$160.47
Beauty & Cosmetics	15.60%	1.60%	0.63%	$0.36	$57.59
Computers, Electronics & Acc.	6.90%	0.80%	0.30%	$0.20	$66.37
Fashion & Apparel	12.80%	1.70%	0.93%	$0.56	$59.94
Food & Beverage	23.10%	4.10%	2.61%	$1.46	$55.86
Garden & Home Goods	16.70%	2.10%	0.80%	$0.64	$79.91
Health & Fitness	11.40%	1.70%	1.18%	$0.92	$77.62
Jewelry & Accessories	15.10%	2.80%	1.03%	$0.54	$52.62
Media & Entertainment	22.70%	4.80%	1.92%	$0.98	$51.20
Outdoor & Wilderness Gear	24.90%	6.30%	4.46%	$2.23	$49.89
Toys & Games	20.50%	3.30%	2.07%	$1.93	$93.43
AVERAGE ACROSS INDUSTRIES	14.00%	1.80%	0.89%	$0.55	$62.01

https://www.klaviyo.com/blog/ecommerce-industry-performance-benchmarks

Cold calling conversion rates



Reach rate benchmarks: 15% or higher

These numbers refer to how many decision makers you reach (not gate keepers):

10% or less = You're toast.

15% = You're doing ok, this is pretty much standard.

30% = You're doing great!

Qualifying benchmarks: 50% of decision-makers reached

Closing rate benchmarks: 50% = You're good

https://blog.close.com/cold-calling-conversion-funnel-analytics/

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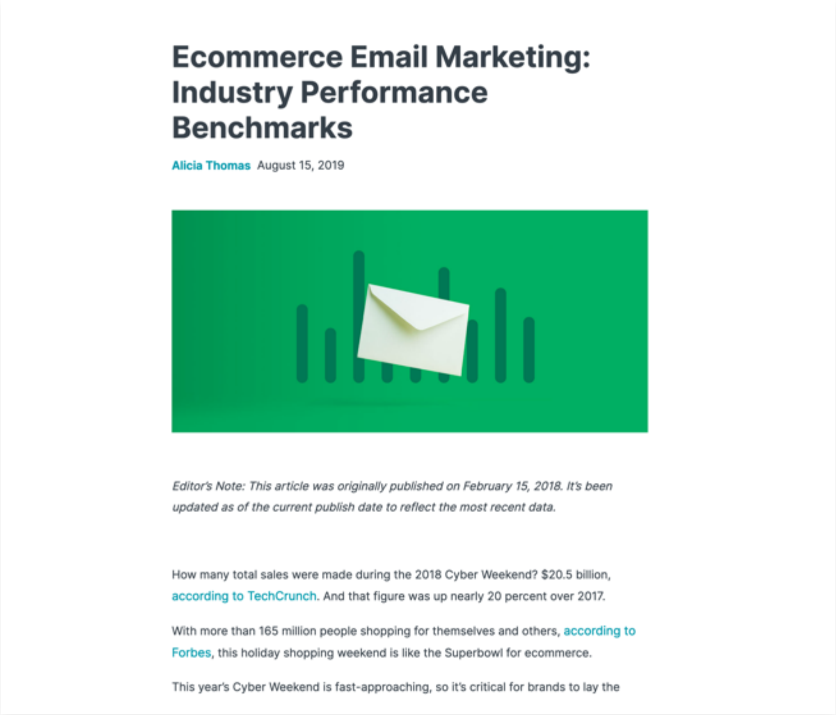

Ecommerce Email Marketing: Industry Performance Benchmarks

Alicia Thomas August 15, 2019

Editor's Note: This article was originally published on February 15, 2018. It's been updated as of the current publish date to reflect the most recent data.

How many total sales were made during the 2018 Cyber Weekend? $20.5 billion, according to TechCrunch. And that figure was up nearly 20 percent over 2017.

With more than 165 million people shopping for themselves and others, according to Forbes, this holiday shopping weekend is like the Superbowl for ecommerce.

This year's Cyber Weekend is fast-approaching, so it's critical for brands to lay the

https://www.klaviyo.com/blog/ecommerce-industry-performance-benchmarks

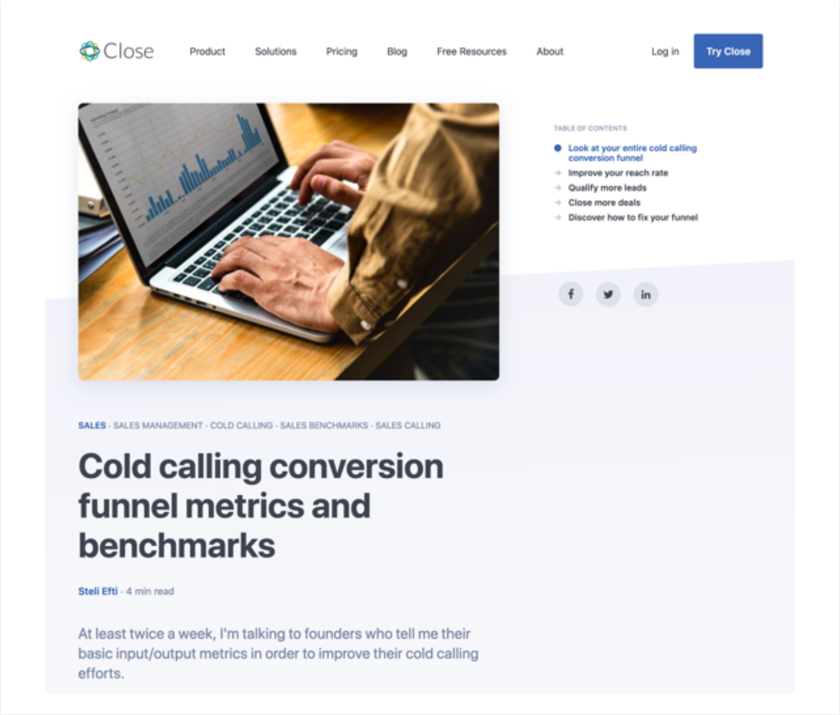

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TABLE OF CONTENTS

- Look at your entire cold calling conversion funnel
- Improve your reach rate
- Qualify more leads
- Close more deals
- Discover how to fix your funnel

SALES · SALES MANAGEMENT · COLD CALLING · SALES BENCHMARKS · SALES CALLING

Cold calling conversion funnel metrics and benchmarks

Steli Efti · 4 min read

At least twice a week, I'm talking to founders who tell me their basic input/output metrics in order to improve their cold calling efforts.

https://blog.close.com/cold-calling-conversion-funnel-analytics/

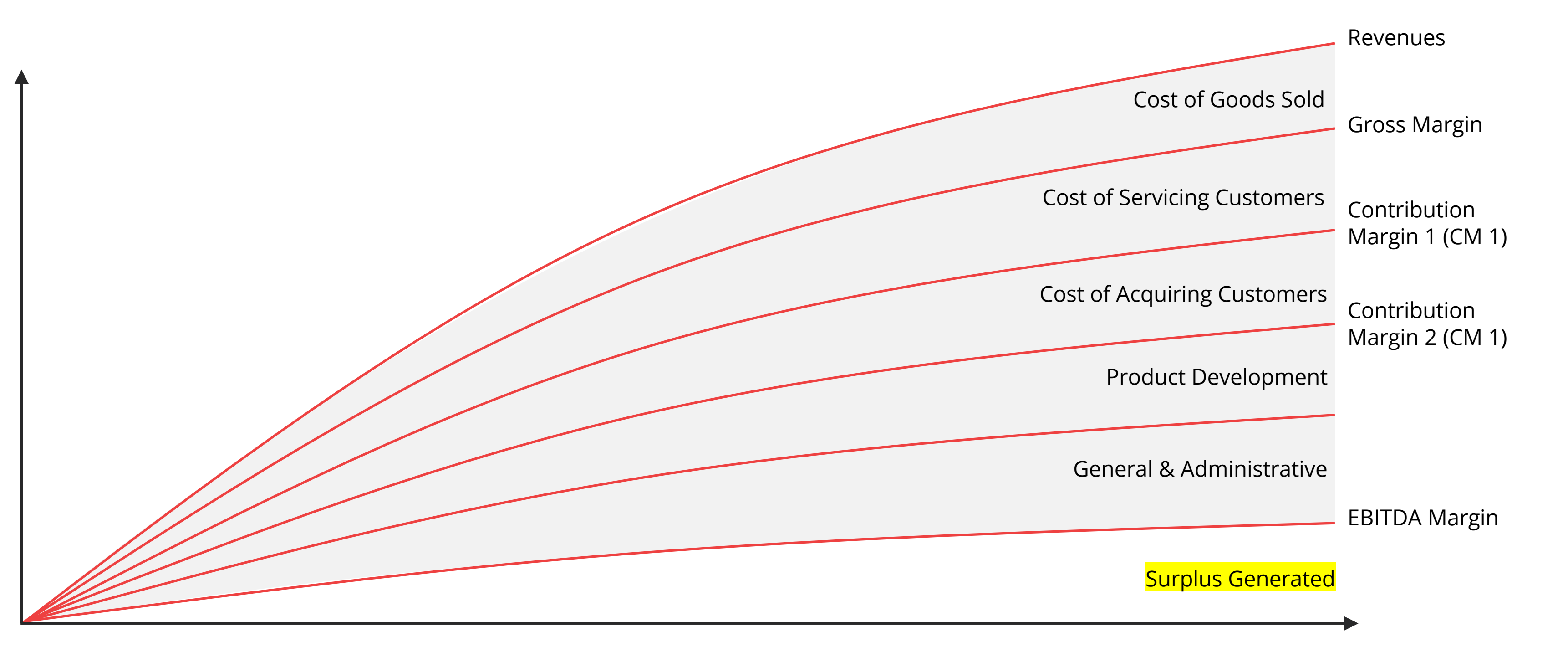
MARGINS

Why it matters: Margins

Why it matters?

Margins provides a view of how the revenues of the business is spent on different expense categories (e.g. cost of goods sold, cost to service customers, costs to acquire customers, product development and general and administrative expenses) before hopefully generating a surplus when the business is at scale.

Unbundling margins



Example: Marketplace P&L with unbundled margins

	Gross Merchandising Value (GMV)	**Total transaction volume**
×	Take Rate	Sales commission
=	**Net Revenues**	**Revenues recognized by the company**
−	Cost of Goods Sold (COGS)	Web site hosting, maintenance, warehousing, inventory, shipping
=	**Gross Margin**	
−	Variable Customer Service Costs	Payment processing fees, customer service, onboarding
=	**Contribution Margin 1**	
−	Sales and Marketing	Performance advertising, TV/radio/mail, PR campaigns, field/tele-sales
=	**Contribution Margin 2**	
−	Product Development	Technical development team, R&D expenses
−	General & Administrative Expenses	Management, support functions, office rental, insurance, travel, utilities
=	**EBITDA**	**Earnings Before Interest, Taxes, Depreciation & Amortization**

SaaS margin evolution by revenues

	Size of Company (2018 GAAP Revenue)				
	All Respondents	$5MM –$25MM	$25MM –$50MM	$50MM –$100MM	>$100MM
Gross Margins:					
Subscription Gross Margin	78%	77%	78%	79%	77%
Total Gross Margin	73%	73%	74%	72%	66%
Operating Expense Margins:					
Sales & Marketing	43%	45%	39%	50%	36%
Research & Development	27%	29%	27%	28%	17%
General & Administrative	20%	22%	18%	18%	11%
Profitability and Growth:					
EBITDA Margin	(19%)	(31%)	(15%)	(23%)	3%
FCF Margin	(14%)	(19%)	(14%)	(15%)	2%
YoY Organic ARR Growth Rate	35%	39%	40%	30%	21%

- Gross margins stabilize quickly
- Sales & marketing expenses tends to remain high as companies scale
- Significant scale efficiencies for Research & Development and General & Administrative expenses

Benchmarks for mature software companies:

- Gross margins around 70-80%
- R&D around 15%
- G&A around 10%

https://www.key.com/kco/images/2019_KBCM_saas_survey_102319.pdf

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Why Contribution Margin is a Strong Predictor of Success for Companies

Published on August 29, 2018

Michael Kwatinetz
General Partner at Azure Capital Partners

45 articles ✓ Following

In the last post I concluded with a brief discussion of Contribution Margin as a key KPI. Recall:

Contribution Margin = Variable Profits – Sales and Marketing Cost

The higher the contribution margin, the more dollars available towards covering G&A. Once contribution margin exceeds G&A, a company reaches operating profits. For simplicity in this post, I'll use gross margin (GM) as the definition of variable profits even though there may be other costs that vary directly with revenue.

The Drivers of Contribution Margin (CM)

There is an absolute correlation between GM percent and CM. Very high gross margin companies will, in general, get to strong contribution margins and low gross margin companies will struggle to get there. But the sales and marketing needed to drive growth is just as important. There are several underlying factors in how much needs to be spent on sales and marketing to drive growth:

1. The profits on a new customer relative to the cost of acquiring her (or him). That is, the CAC (customer acquisition cost) for customers derived from paid advertising compared to the profits on those customers' first purchase

https://www.linkedin.com/pulse/why-contribution-margin-strong-predictor-success-michael-kwatinetz/

Interesting KPIs (Key Performance Indicators) for a Subscription Company

August 1, 2018 · Mike Kwatinetz · Ecommerce, KPI, Predictions, Startups, Stocks, Technology
Board, Ecommerce, KPI, Predictions, Startups, Subscription

In working with early stage businesses, I often get the question as to what metrics should management and the board use to help understand a company's progress. It is important for every company to establish a set of consistent KPIs that are used to objectively track progress. While these need to be a part of each board package, it is even more important for the executive team to utilize this for managing their company. While this post focuses on SaaS/Subscription companies, the majority of it applies to most other types of businesses.

https://soundbytes2.com/2018/08/01/interesting-kpis-key-performance-indicators-for-a-subscription-company/

Resources

a16z Podcast: Gross Margins, Early to Late: What They Do (and Don't) Tell You

with Martin Casado, Sarah Wang, David George, and Amelia Salyers

enterprise & SaaS • marketplaces • growth (late stage venture) • metrics • finance • key startup metrics

a16z Podcast | EP570

Gross Margins, Early to Late: What They Do (and Don't) Tell...

00:00 36:01

1X

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Gross margins—which are essentially a company's revenue from products and services minus the costs to deliver those products and services to customers—are one of the most important financial metrics for any startup and growing business.

And yet, figuring out what goes into the "cost" for delivering products and services is not as simple as it may sound, particularly for high-growth software businesses that might use emerging business models or be leveraging new technology. Why do gross margins matter? When do they matter during a company's growth? And how do you use them to plan for the future?

In this episode, a16z general partner Martin Casado, who invests in early stage enterprise and AI/ML companies; David George, who leads a16z's Growth Fund and was previously at General Atlantic and led numerous consumer internet and enterprise software growth deals; and Sarah Wang, on the Growth investment team and was previously at TA Associates, a global growth equity firm, share their perspectives on how to think about gross margins in both earlier and later stages of a startup. The conversation ranges from the nuances of and strategy for calculating margins with things like cloud costs, freemium users, or implementation costs, to the impact margins can have on valuations.

https://a16z.com/2020/06/26/gross-margins-early-late/

CUSTOMER ACQUISITION COST

Why it matters: Customer acquisition costs

Why it matters?

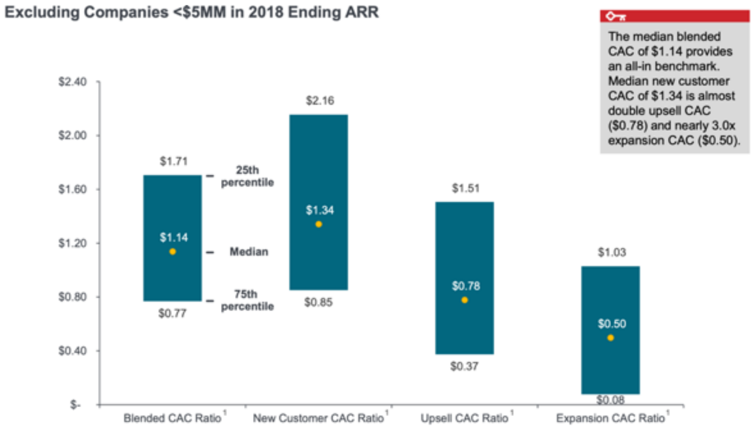
Customer acquisition costs show how much it costs to acquire a customer. This measurement can be related to the monthly revenues, monthly revenues adjusted for gross margin as well as the life-time value of the customer.

CAC definitions & benchmarks

CAC Definitions

It is difficult to obtain comparative "per customer" CAC ratios so it is common practice to benchmark incremental ARR versus sales and marketing expenditure.

CAC Benchmarks (SaaS companies)

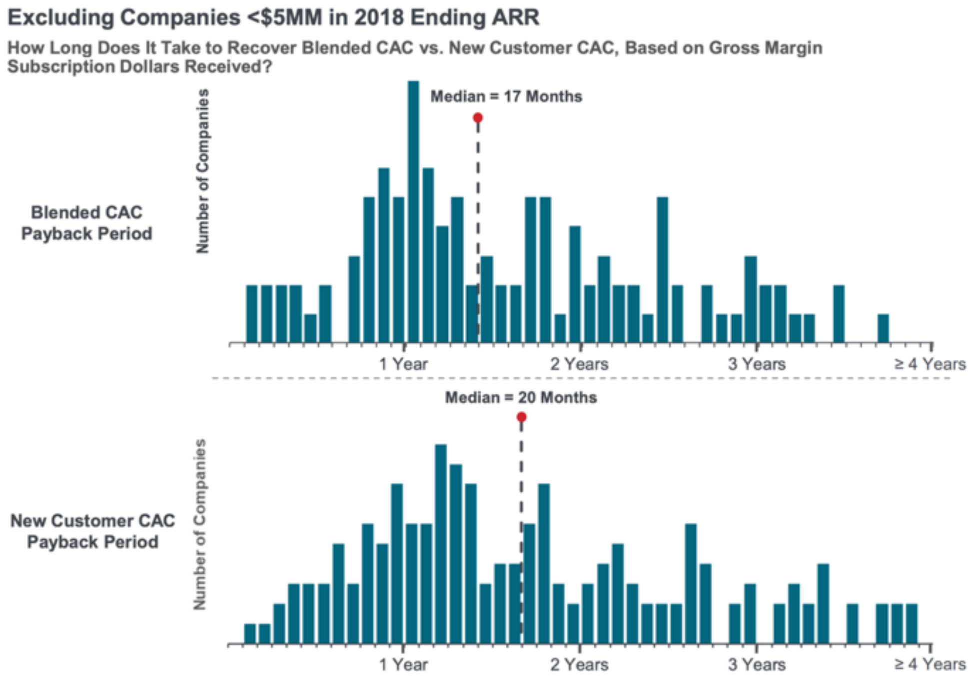


The median private SaaS company spends USD 1.14 to acquire USD 1 in recurring revenues.

https://www.key.com/kco/images/2019_KBCM_saas_survey_102319.pdf

Private SaaS CAC payback

- The median CAC payback time for private SaaS companies is 17 months on a gross margin basis.
- Note that this would be lower on an ARPU basis before adjusting for the gross margin of revenues.



https://www.key.com/kco/images/2019_KBCM_saas_survey_102319.pdf

Public SaaS CAC

Jordan Mayes calculation of blended CAC for public SaaS companies based on Bessemer Venture Partners| CAC index

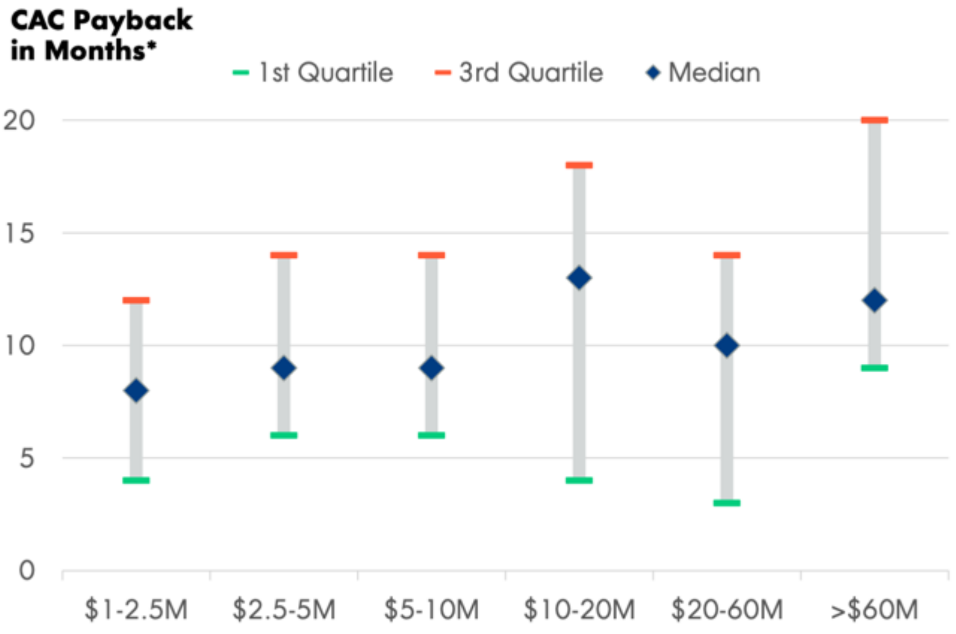
J Mayes BVP Index CAC	CAC
Co	**Most Recent Year**
25% Percentile	*$1.523*
50% Percentile	*$1.791*
75% Percentile	*$2.439*
Average	*$2.176*

Company	Blended CAC (USD)
Shopify	0.76
Twilio	0.83
Atlassian	0.83
Veeva	0.92
Workday	1.20
Xero	1.74
Zendesk	1.86
HubSpot	2.03
Salesforce	2.31
Cloudera	2.80
Box	2.82

https://medium.com/@jordanmayes/how-i-think-about-cac-w-50-benchmarks-251695c67d92

SaaS CAC recovery

- SaaS companies typically report a 9-12-month payback period
- However, when adjusting for gross margins and fully loaded acquisition costs, this often turns to 12-18 months
- Best-in-class SaaS companies have a 6-12-month CAC payback time.



https://cdn2.hubspot.net/hubfs/366266/Expansion%20SaaS%20Benchmarking%20Study%20-%20Full%20Report.pdf

CAC recovery as the safest return metric for early stage startups

Definition

$$\frac{\text{CAC (\$)}}{\text{Monthly ARPU (\$)} \times \text{Gross Margin (\%)}} = \text{Months needed to recover CAC (\#)}$$

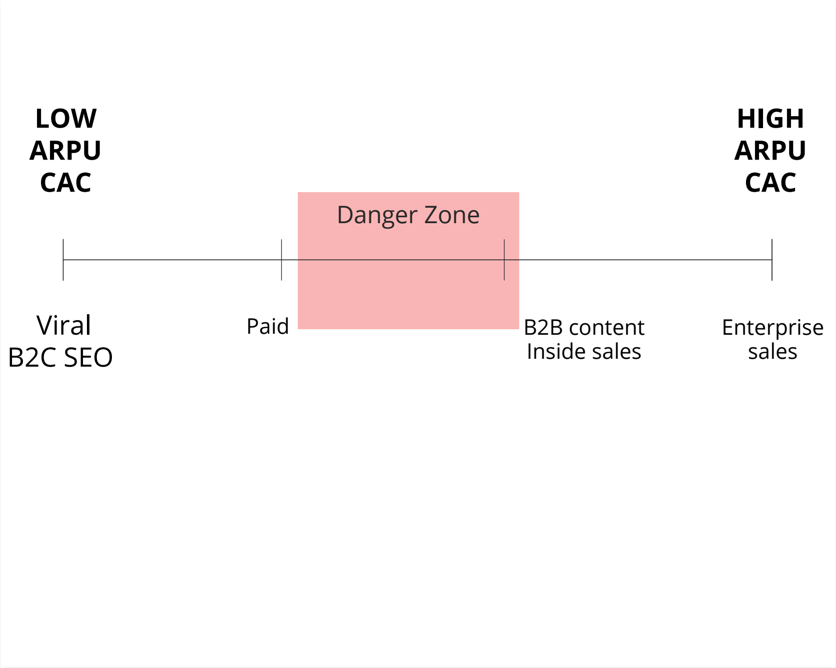
Background benchmarks

- Cash is King for early stage startups. CAC recovery puts the focus on the working capital needed to fuel rapid customer growth.
- LTV is very difficult to estimate early on during a startup's journey.
- CAC recovery should be less than 12 months and ideally 5-7 months. A cash strapped startup may well need to have to accept <3 months recovery, and limit growth, to stay afloat.
- Cohort analysis yields early insights into customer retention.

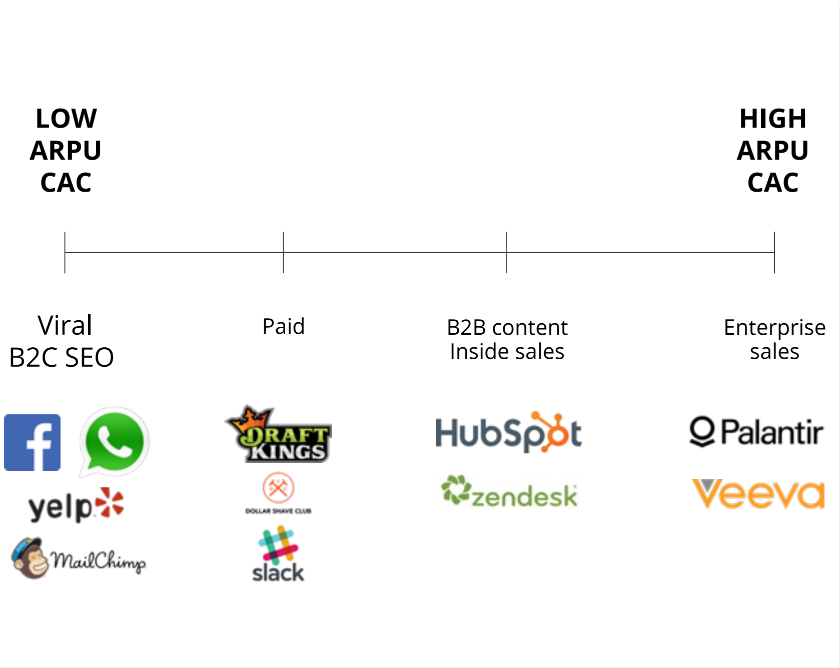
- Much of the VC industry and growth marketing professionals are firmly focused on the CAC:LTV ratio.
- At Antler we choose to focus our founders on CAC recovery given our early investment stage and limited funding envelopes.

Brian Balfour's ARPU versus CAC spectrum

The ARPU <-> CAC Spectrum



The ARPU <-> CAC Spectrum



https://brianbalfour.com/essays/channel-model-fit-for-user-acquisition

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KPI examples > SaaS >

CAC Payback Period

What is CAC Payback Period?

The SaaS Metric CAC Payback Period is the number of months it takes to earn back the money invested in acquiring customers. It shows your break even point. This metric often goes by Time to Recover CAC or Months to Recover CAC.

Advice from VCs: Why CAC Payback Period is critical

"CAC payback period determines how much cash the company needs to grow." - Tom Tunguz, Partner at Redpoint Ventures

How to calculate CAC Payback Period:

```
($) CAC / [ ($) ARPA X (%) Gross Margin ] = (#) Months to Recover CAC
```

In order to calculate CAC Payback Period, you need to know three other key metrics: Customer Acquisition Cost (CAC), Average Revenue Per Account (ARPA), and Gross Margin percent. Divide the customer acquisition cost by the average revenue per account multiplied by gross margin percent. This gives you the number of months it takes to recover CAC.

https://www.geckoboard.com/best-practice/kpi-examples/cac-payback-period/

The biggest issues with LTV : CAC for early-stage startups — and what to do

MattLevinson Follow
Jan 28, 2019 · 4 min read

LTV (lifetime value) to CAC (customer acquisition cost) is the oft-cited gold standard for VCs and startups looking to quantify "unit economics." The underlying concept is straight forward — if a customer, over their lifetime, generates far more money than it cost to acquire them, just spend more on customer acquisition! And your soon-to-be unicorn is off to the races.

It's so easy that even Erlich Bachman can do it!

Unicorns with proper LTV : CAC… right?

Typically, a startup should have LTV / CAC over 3x. At 1x, you will payback your variable costs, but never your fixed costs or capital expenditures.

The big problem — when operating and pitching VCs — is that like Erlich Bachmann, LTV to CAC is rarely credible at Seed or Series A. Despite all the talk, early-stage VCs put little faith in this ratio.

https://medium.com/@MattLevinson/the-biggest-issues-with-ltv-cac-for-early-stage-startups-and-what-to-do-2c5c90ac8af6

SaaS Metrics – A Guide to Measuring and Improving What Matters

By David Skok 208

search...

This blog post looks at the high level goals of a SaaS business and drills down layer by layer to expose the key metrics that will help drive success. Metrics for metric's sake are not very useful. Instead the goal is to provide a detailed look at what management must focus on to drive a successful SaaS business. For each metric, we will also look at what is **actionable**.

There is an updated (re-written) version of this post available here: SaaS Metrics 2.0.

Before going any further, I would like to thank the management team at HubSpot, and Gail Goodman of Constant Contact, who sits on the HubSpot board. A huge part of the material that I write about below comes my experiences working with them. In particular HubSpot's management team is comprised of a group of very bright individuals that are all very metrics driven, and they have been clear thought leaders in developing the appropriate tools to drive their business. I'd also like to thank John Clancy, who until recently was President of Iron Mountain Digital, a $230m SaaS business, and Alastair Mitchell, CEO and founder of Huddle.

Let's start by looking at the high level goals, and then drill down from there:

https://www.forentrepreneurs.com/saas-metrics/

BURN MULTIPLE

Why it matters: Burn multiple

Why it matters?

The burn multiple provides a benchmark for how much money the business is burning through in relation to net new revenues generated.

The burn multiple

Burn Multiple

$$\frac{\text{Net Burn}}{\text{Net New ARR}}$$

How much is the startup burning in order to generate each incremental dollar of ARR?

The higher the Burn Multiple, the more the startup is burning to achieve each unit of growth. The lower the Burn Multiple, the more efficient the growth is.

Burn Multiple Benchmarks

Burn Multiple	Efficiency
Under 1x	Amazing
1 - 1.5x	Great
1.5 - 2x	Good
2 - 3x	Suspect
Over 3x	Bad

https://medium.com/craft-ventures/the-burn-multiple-51a7e43cb200

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The Burn Multiple

How Startups Should Think About Capital Efficiency

David Sacks Follow
Apr 24 · 6 min read ★

As the economic crisis deepens, capital efficiency becomes a more pressing issue for startups. Not only is it necessary to maximize runway, it also plays a larger role in how investors evaluate companies. While growth is always prized during good times or bad, investors increasingly scrutinize burn and margins during downturns. Startups whose burn is too high relative to their growth will find it hard to fundraise. Founders should be prepared for this shift in emphasis. This post provides a framework for how to think about capital efficiency.

https://medium.com/craft-ventures/the-burn-multiple-51a7e43cb200

WORKING CAPITAL RATIO

Why it matters: Working capital ratio

Why it matters?

The working capital ratio captures the balance between a company's current liabilities versus current assets. As such it gages a company's risk of running into liquidity problems from being unable to meet its payment obligations.

Working capital ratio (current ratio)

Current Ratio

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Of specific importance for companies holding physical inventory (e.g. hardware manufacturing companies and e-commerce companies with stock keeping)

Current Ratio Benchmarks

<1	may mean trouble ahead
>1.5	solid situation

Resources

CORPORATE FINANCE & ACCOUNTING > FINANCIAL RATIOS

What Is Considered a Good Working Capital Ratio?

By J.B. MAVERICK | Updated Aug 29, 2018

The working capital ratio is a very basic metric of liquidity. It is meant to indicate how capable a company is of meeting its current financial obligations and is a measure of a company's basic financial solvency. In reference to financial statements, it is the figure that appears on the bottom line of a company's balance sheet.

Determining a Good Working Capital Ratio

The ratio is calculated by dividing current assets by current liabilities. It is also referred to as the current ratio.

Generally, a working capital ratio of less than one is taken as indicative of potential future liquidity problems, while a ratio of 1.5 to two is interpreted as indicating a company on solid financial ground in terms of liquidity.

An increasingly higher ratio above two is not necessarily considered to be better. A substantially higher ratio can indicate that a company is not doing a good job of employing its assets to generate maximum possible revenue. A disproportionately high working capital ratio is reflected in an unfavorable return on assets ratio (ROA), one of the primary profitability ratios used to evaluate companies.

https://www.investopedia.com/ask/answers/010915/what-proper-ratio-between-working-capital-current-assets-and-current-liabilities.asp

FUNDRAISING

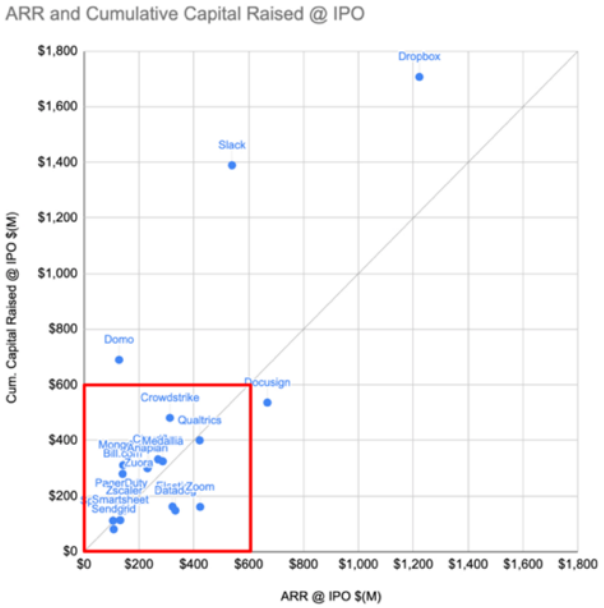
Why it matters: Fundraising

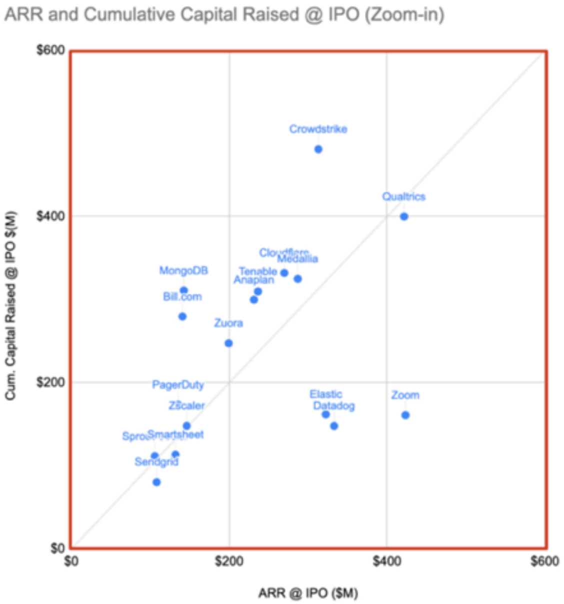
Why it matters?

Several metrics captures the fundraising health of the company including total funds raised to annual revenues, dilution of founders and founder ownership at exit.

Fundraising versus ARR

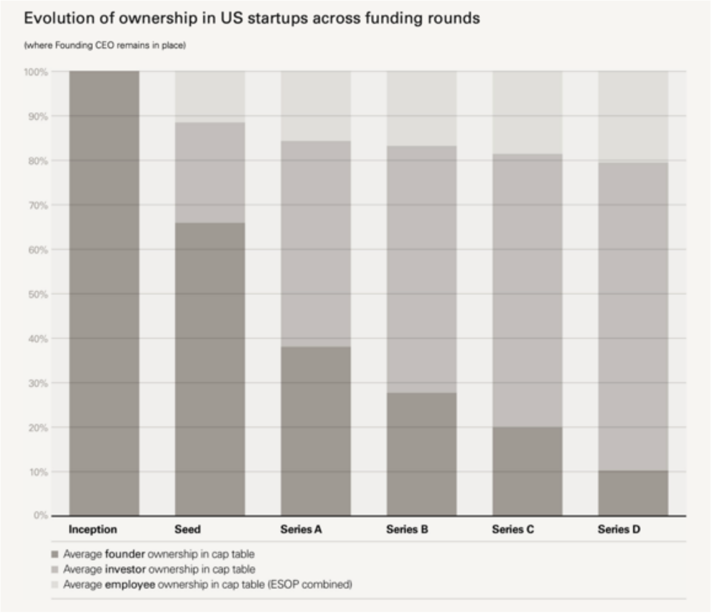
At the time of the IPO, total capital raised was slightly ahead of the annual recurring revenues (ARR)

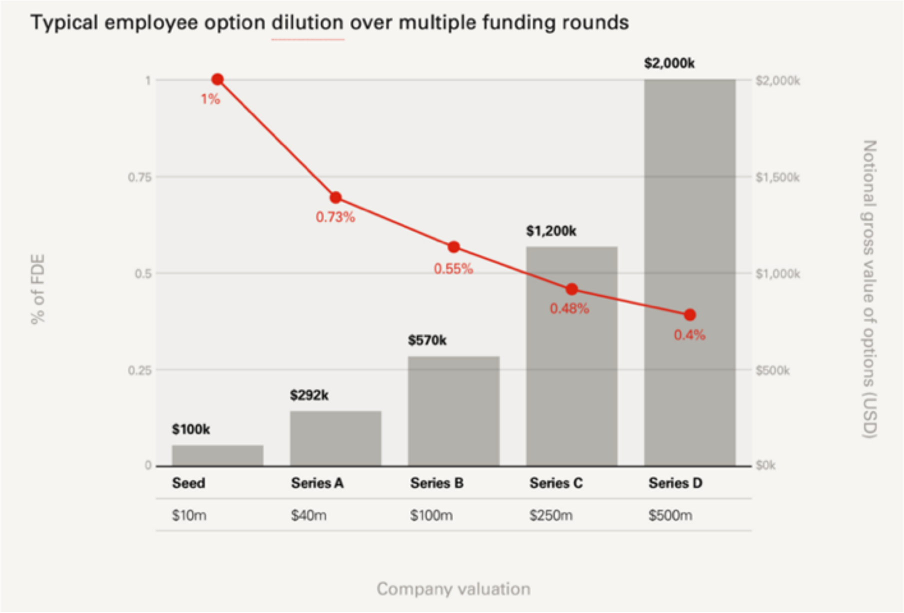




https://techcrunch.com/2020/01/24/most-tech-companies-arent-wework/

Founder dilution

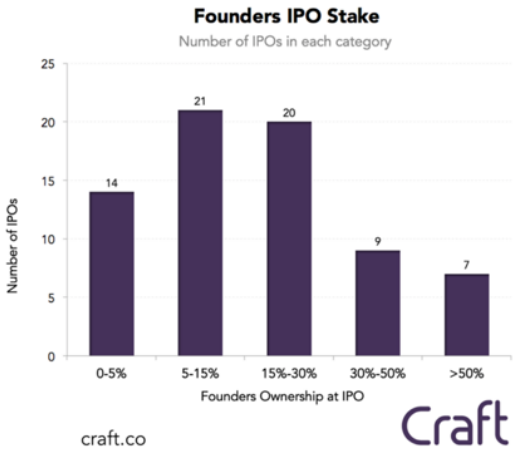




Example of employee initially granted 1% at Seed stage with no additional option grants

https://www.indexventures.com/rewardingtalent/how-ownership-evolves-over-time

Founder ownership at IPO



Value of Founders Equity at IPO

Ranked in Descending Order of Founder Equity Value

Rank	Company	Founders %
1	Atlassian	75%
2	Workday	73%
3	Workiva	72%
4	Zillow	62%
5	Wayfair	58%
6	ShutterStock	55%
7	Zulilly	51%
8	Tableau	49%
9	GoPro	49%
10	Barracuda Networks	48%
11	OPower	40%
12	Groupon	36%
13	Facebook	36%
14	Square	34%
15	Jive	32%
16	RocketFuel	30%
17	Ring Central	29%
18	New Relic	27%
19	Appfolio	25%
20	Trulia	24%
21	FitBit	22%
22	Linkedin	21%
23	Demandware	21%
24	Millenial Media	21%
25	ChannelAdvisor	19%
26	Criteo	19%
27	Mind Body	19%
28	Kayak	19%
29	Carbonite	18%
30	TubeMogul	17%
31	Shopify	17%
32	Twitter	17%
33	Veeva	17%
34	King	16%
35	Zynga	16%

Rank	Company	Founders %
36	Boingo	15%
37	Marin Software	15%
38	ZenDesk	14%
39	Hubspot	14%
40	Service Now	14%
41	TrueCar	12%
42	Splunk	12%
43	Yelp	11%
44	FireEye	11%
45	Rapid 7	10%
46	Palo Alto Networks	10%
47	Wix	9%
48	Textura	9%
49	Care.com	8%
50	YuMe	8%
51	Marketo	7%
52	GrubHub	6%
53	Box	6%
54	Instructure	6%
55	Lending Club	6%
56	Vocera	6%
57	Envivio	5%
58	Guidewire Software	5%
59	Xoom	5%
60	Skull Candy	5%
61	Chegg	4%
62	Ruckus Wireless	4%
63	HomeAway	4%
64	Exact Target	4%
65	LifeLock	4%
66	Tremor Video	3%
67	Pandora	2%
68	Apigee	0%
69	Mavenir Systems	0%
70	Etsy	0%
71	Zipcar	0%

Values of Founders Equity at IPO

Ranked in Descending Order of Founder Equity Value

Rank	Company	IPO Value ($Bn)	Founders %	Founders Value ($Bn)
1	Facebook	81	35.8	29
2	Groupon	13	35.9	4.67
3	Atlassian	4.4	75.4	3.32
4	Workday	4.5	72.7	3.27
5	Twitter	18	16.9	3.04
6	Wayfair	3.1	57.8	1.79
7	GoPro	3.5	48.8	1.71
8	Zulilly	2.7	51.3	1.39
9	King	7	16.3	1.14
10	Zynga	7	16	1.12
11	Square	2.9	33.8	0.98
12	Linkedin	4.5	21.4	0.96
13	Tableau	1.7	49.3	0.84
14	FitBit	3.1	21.8	0.67
15	Lending Club	9	5.6	0.5
16	Barracuda Networks	1	47.5	0.46
17	Workiva	0.6	72.1	0.4
18	Zillow	0.6	61.7	0.39
19	OPower	0.9	39.8	0.34
20	Veeva	2	16.6	0.33
21	Criteo	1.7	19.2	0.32
22	RocketFuel	1	30.1	0.3
23	Service Now	1.9	13.6	0.26
24	ShutterStock	0.5	54.6	0.25
25	New Relic	0.9	27.3	0.24
26	Kayak	1.3	18.7	0.24
27	Palo Alto Networks	2.4	9.8	0.24
28	Ring Central	0.7	28.6	0.21
29	Millenial Media	1	20.5	0.21
30	FireEye	1.5	10.7	0.16
31	Jive	0.5	31.5	0.15
32	Guidewire Software	3	4.9	0.15
33	GrubHub	2	6.3	0.13
34	Shopify	0.7	17.1	0.12
35	Appfolio	0.4	25.3	0.11

Rank	Company	IPO Value ($Bn)	Founders %	Founders Value ($Bn)
36	Trulia	0.4	24.1	0.1
37	Hubspot	0.7	13.7	0.1
38	Splunk	0.8	11.7	0.1
39	Yelp	0.9	11.1	0.1
40	Mind Body	0.5	19	0.09
41	ZenDesk	0.6	14.3	0.09
42	TrueCar	0.7	11.7	0.09
43	Box	1.6	5.9	0.09
44	Demandware	0.4	20.6	0.08
45	HomeAway	2	3.9	0.08
46	Carbonite	0.4	18	0.07
47	Boingo	0.4	15.1	0.07
48	TubeMogul	0.4	17.4	0.06
49	Marin Software	0.4	14.6	0.06
50	Rapid 7	0.6	10.2	0.06
51	Wix	0.7	9.1	0.06
52	Pandora	2.6	2.4	0.06
53	ChannelAdvisor	0.27	19.2	0.05
54	Chegg	1.1	4.3	0.05
55	Care.com	0.5	7.8	0.04
56	Marketo	0.5	6.6	0.04
57	Ruckus Wireless	1	4.3	0.04
58	Exact Target	1	3.9	0.04
59	Textura	0.3	9.1	0.03
60	YuMe	0.4	7.5	0.03
61	Instructure	0.4	5.8	0.03
62	LifeLock	0.9	3.7	0.03
63	Vocera	0.3	5.5	0.02
64	Envivio	0.3	5.4	0.02
65	Xoom	0.5	4.8	0.02
66	Skull Candy	0.5	4.7	0.02
67	Tremor Video	0.5	2.9	0.01
68	Apigee	0.5	0	0
69	Mavenir Systems	0.4	0	0
70	Etsy	1.8	0	0
71	Zipcar	0.6	0	0

https://priceonomics.com/how-much-equity-do-founders-have-when-their/

ENTERPRISE SAAS

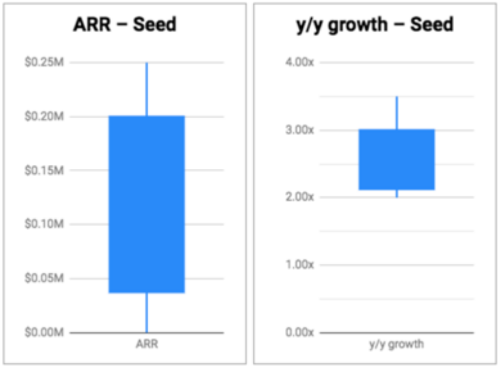
Metrics: Enterprise SaaS

- Monthly Recurring Revenues (MRR)
- Annual Recurring Revenues (ARR)
- Gross MRR Churn, cohort metric, churn during the month from customers at the beginning
- Paid CAC (if applicable)
- Customer LTV / paid CAC
- CAC payback
- Burn rate / runway

SaaS annual recurring revenue (ARR) at Seed, Series A, Series B

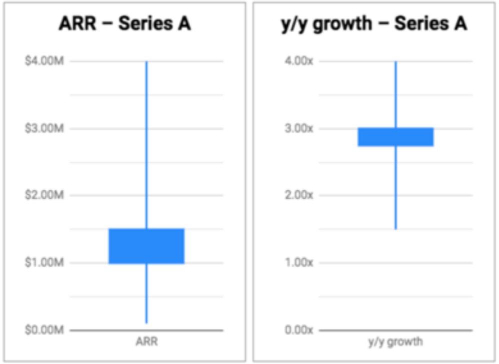
Typical year-on-year revenue growth of 2-3 times across funding rounds

Seed



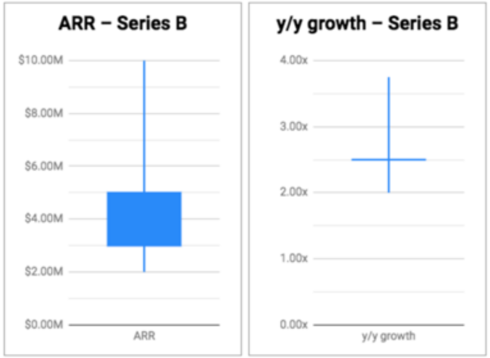
ARR USD 0.04-0.2 m
y/y growth 2.1-3x

Series A



ARR USD 1.0-1.5 m
y/y growth 2.75-3x

Series B

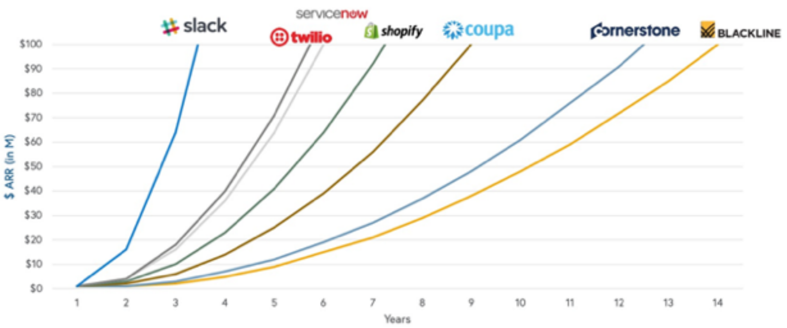


ARR USD 3.0-5.0 m
y/y growth 2.5x

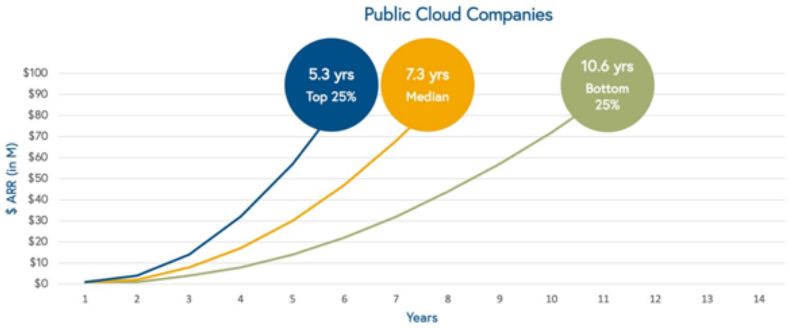
https://medium.com/point-nine-news/what-does-it-take-to-raise-capital-in-saas-in-2019-26829debef29

SaaS: Years from USD 1m to USD 100 m ARR

Years from USD 1 million to USD 100 million ARR

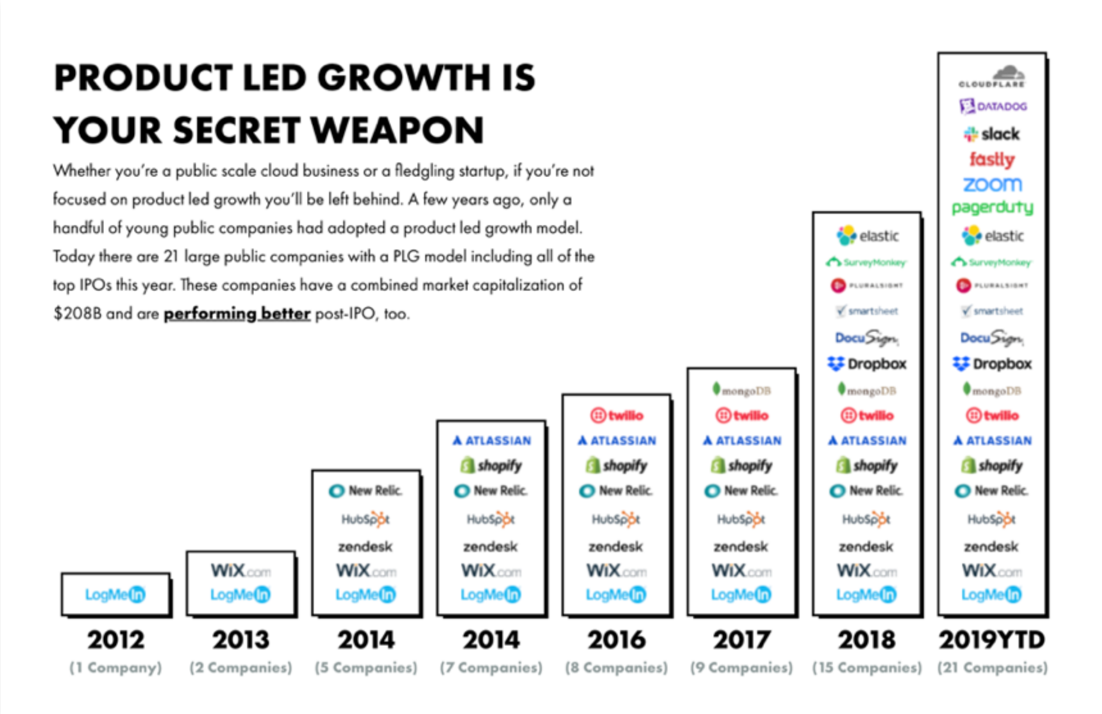


Years from USD 1 million to USD 100 million ARR



https://www.bvp.com/atlas/state-of-the-cloud-2019

SaaS Growth: Product-led versus non-product-led



- PLG companies initially focus on perfecting the product rather than on sales and marketing
- The product itself is the primary driver of customer acquisition, conversion and expansion

https://openviewpartners.com/expansion-saas-benchmarks

SaaS Growth: Product-led versus non-product-led

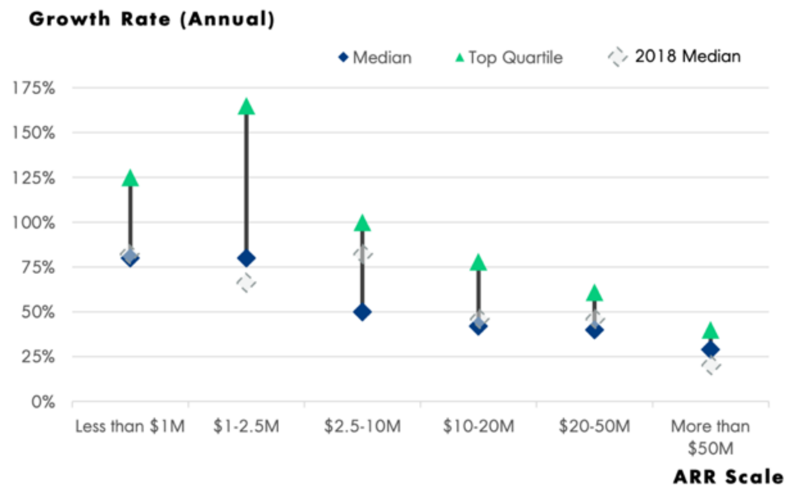
- PLG companies initially grow slower than sales & marketing driven companies as they focus on investing in product development and perfecting the customer experience
- PLG companies begin to grow faster from USD 10 million ARR and above when their growth is not constrained by conventional lead generation, sales and customer success process
- They also often grow with favorable CAC payback ratios given a high degree of organic growth

Top Quartile Growth Rates by ARR

	PLG Companies	Non-PLG Companies
<$1M ARR	116%	148%
$1-2.5M ARR	185%	150%
$2.5-10M ARR	91%	105%
$10-20M ARR	88%	72%
$20-50M ARR	65%	54%
>$50M ARR	50%	30%

https://openviewpartners.com/expansion-saas-benchmarks

SaaS growth by size



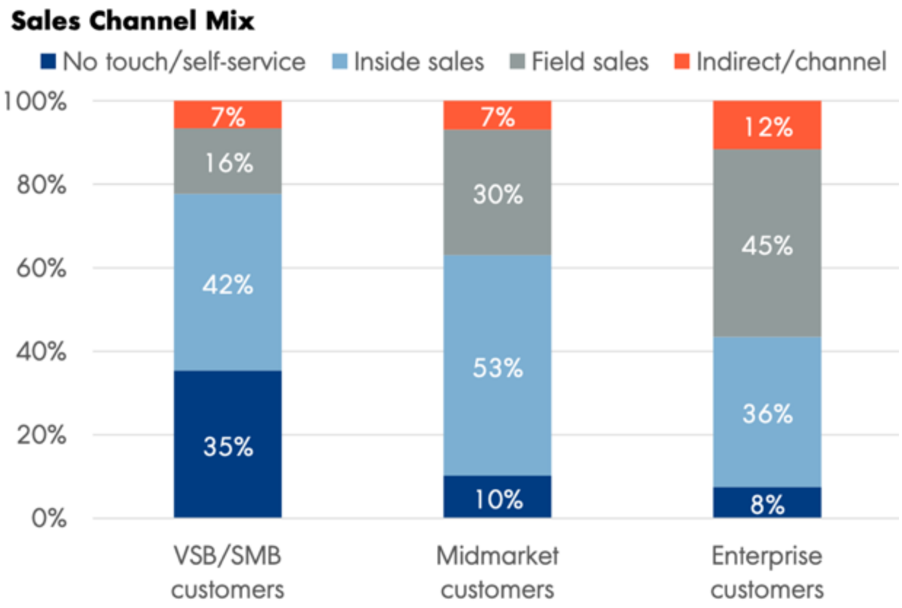
- SaaS companies often grow rapidly in the beginning
- A typical SaaS company double YoY ARR and a top quartile company nearly triples YoY ARR
- Revenue growth tends to decrease when ARR approach USD 10 million

https://cdn2.hubspot.net/hubfs/366266/OpenView%202019%20SaaS%20Benchmarks%20Report.pdf

SaaS target customer type determines sales channel

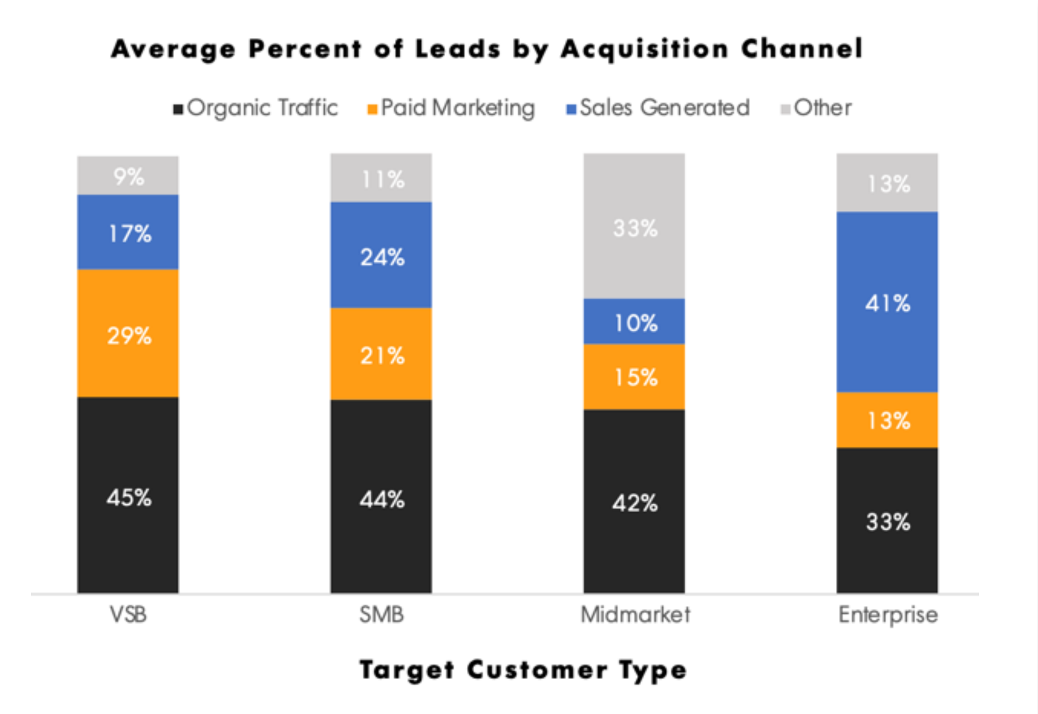
- SaaS companies selling to small businesses rely more on lower cost sales channels including self-service and inside sales
- SaaS companies selling into large enterprises generate most of their revenues from field sales with a sizeable proportion from inside sales

Sales Channel Mix versus Customer Size



https://cdn2.hubspot.net/hubfs/366266/Expansion%20SaaS%20Benchmarking%20Study%20-%20Full%20Report.pdf

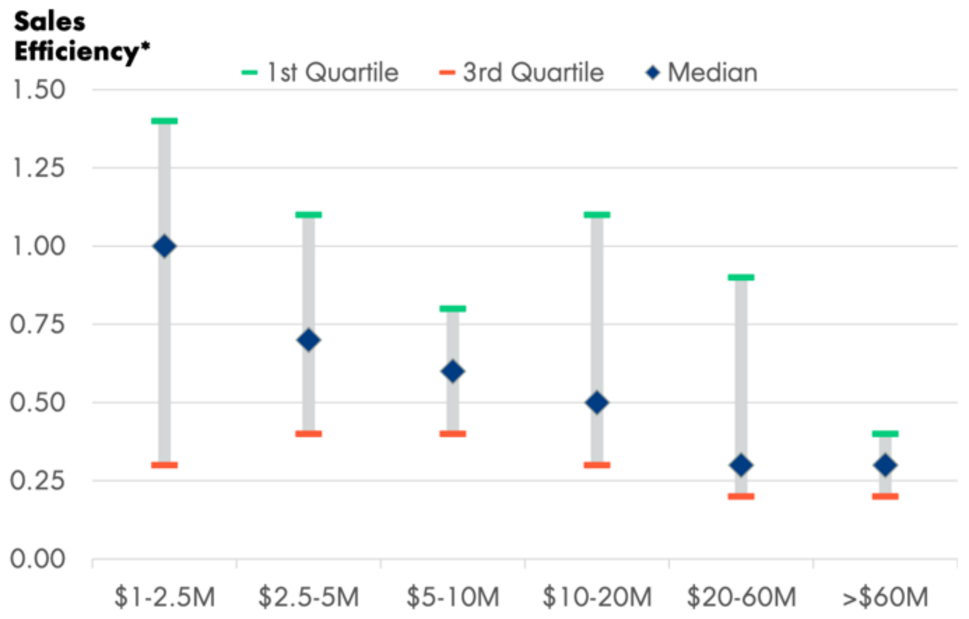
SaaS lead generation by target customer type



- Organic traffic is the most common form of lead generation for SaaS companies selling into small and medium sized businesses
- Direct sales is the primary lead generation engine when selling to large enterprises.

https://f.hubspotusercontent10.net/hubfs/366266/2020_SaaSProductBenchmarks.pdf

SaaS magic number sales efficiency

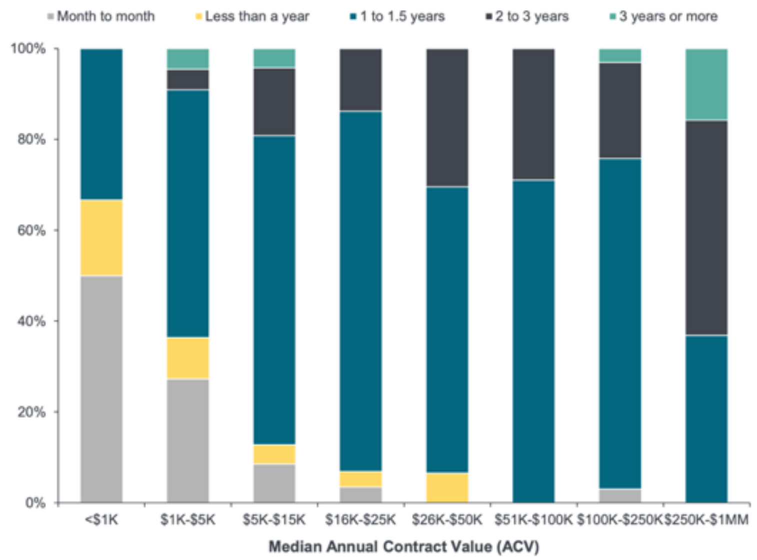


- SaaS companies have an average sales efficiency of about 0.7
- Sales efficiency is highest during the early years and drops as revenues increases towards the point of market saturation

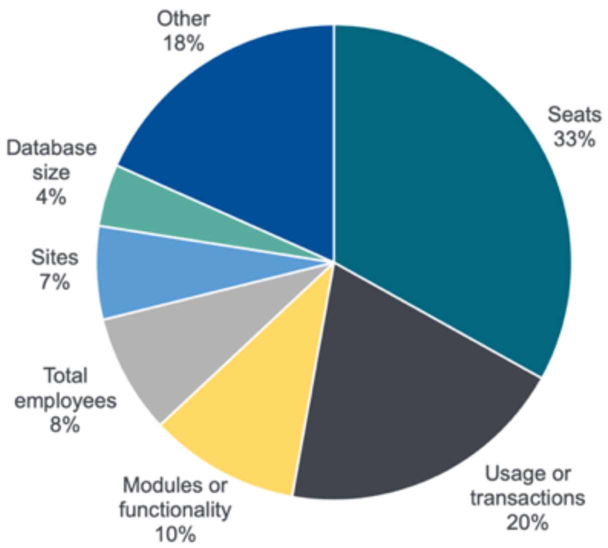
https://cdn2.hubspot.net/hubfs/366266/Expansion%20SaaS%20Benchmarking%20Study%20-%20Full%20Report.pdf

Contract length and pricing model

Contract Length as a Function of Contract Size



Primary Pricing Principle

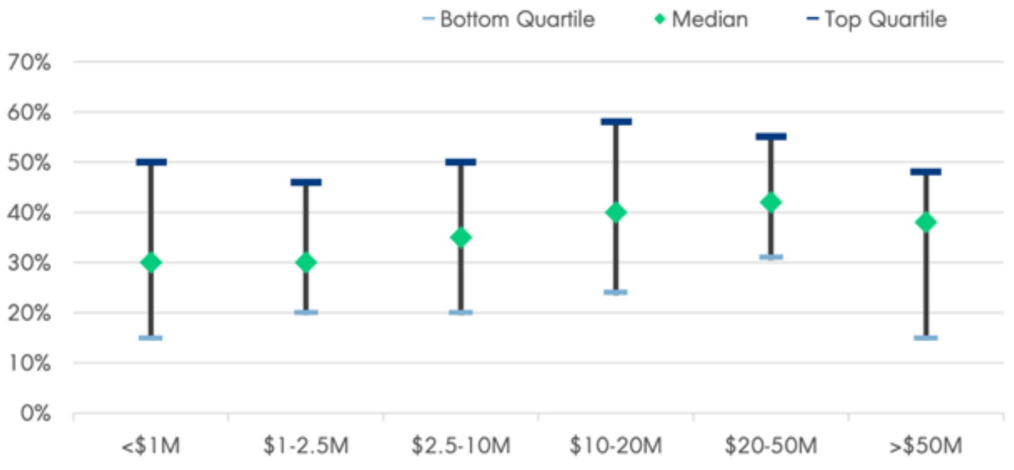


https://www.key.com/kco/images/2019_KBCM_saas_survey_102319.pdf

SaaS: Sales & marketing spend by ARR

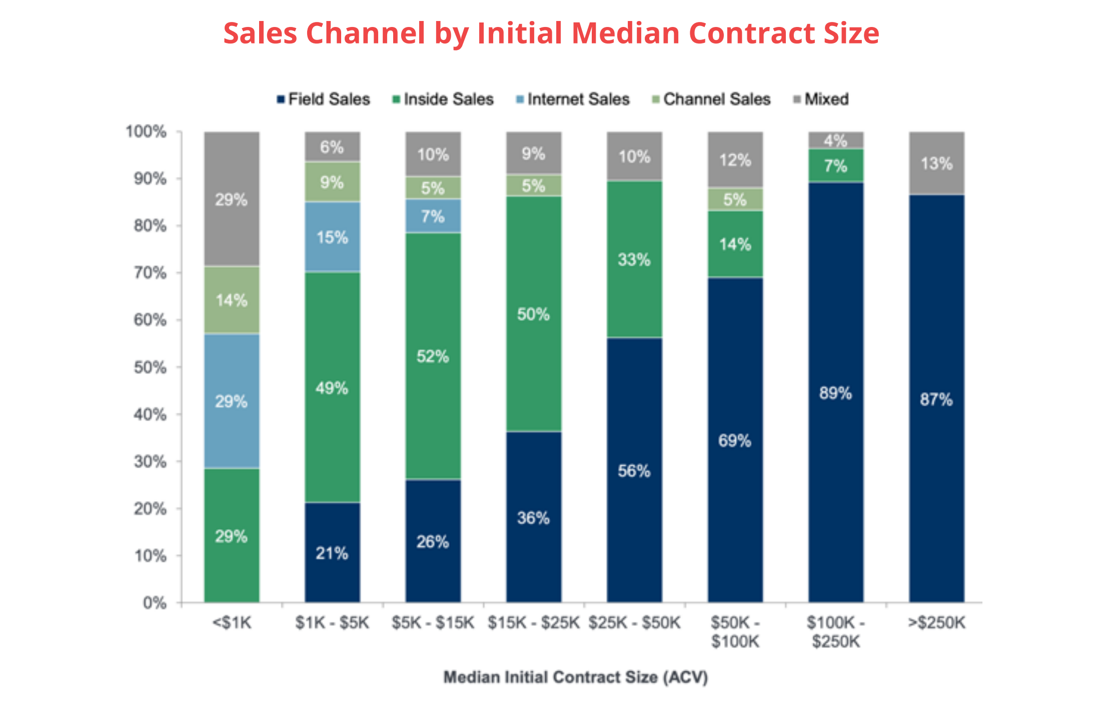
- Prior to USD 2.5 million ARR, Product Development / ARR is the largest expenditure category for SaaS companies
- After USD 2.5 million ARR, sales and marketing becomes the largest expenditure category

Sales and Marketing Spend (% of ARR)



https://cdn2.hubspot.net/hubfs/366266/OpenView%202019%20SaaS%20Benchmarks%20Report.pdf

Sales channel varies by contract value



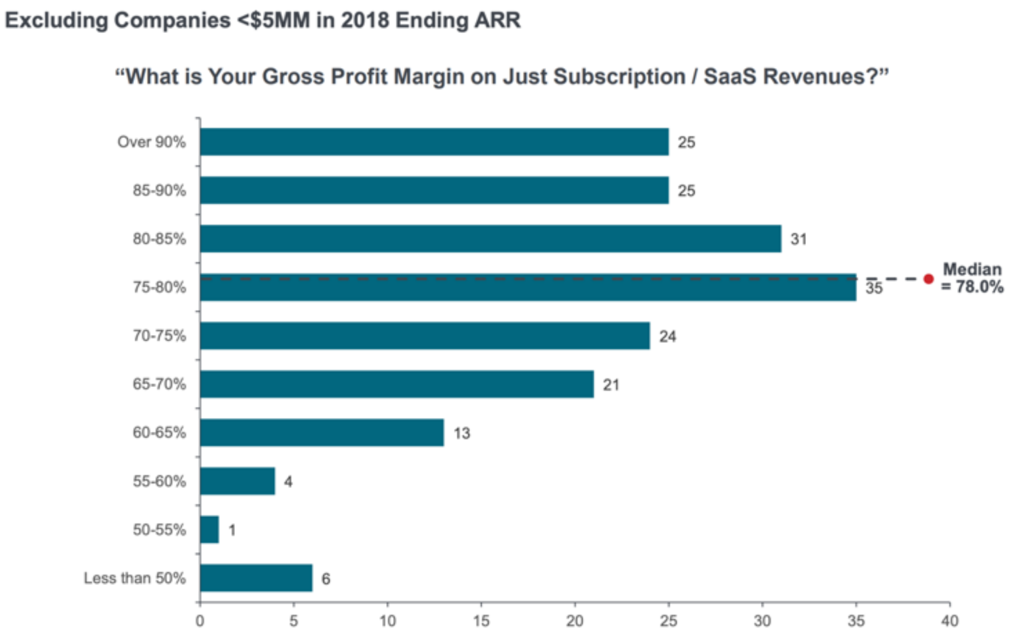
- Field sales dominate for companies with median initial contracts above USD 50k
- Inside sales dominate for companies with median initial contracts between USD 1 – 25k
- Internet sales and inside sales dominate for companies with median initial contracts below USD 1k

https://www.key.com/kco/images/2019_KBCM_saas_survey_102319.pdf

SaaS gross margin benchmarking

- SaaS companies have a median gross margin on subscription revenues of 78%

Subscription Gross Margin



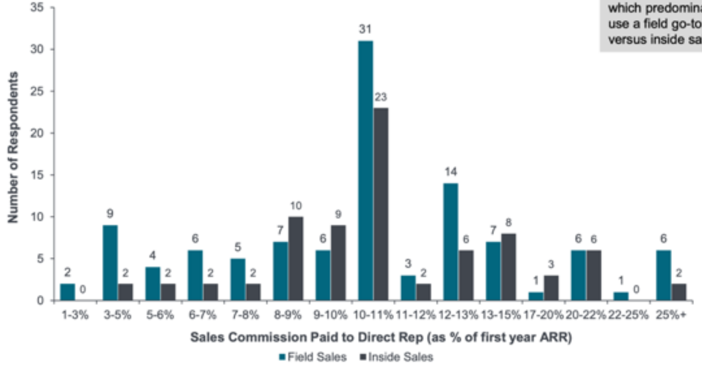
https://www.key.com/kco/images/2019_KBCM_saas_survey_102319.pdf

SaaS sales commission benchmarking

Sales Commission Levels

	Field Dominated	Inside Dominated
Median Direct Sales Commission	≈ 10.0%	≈ 10.0%
Median Fully-Loaded Sales Commission	≈ 12.0%	≈ 14.0%

The survey results do not point to a significant difference in sales commission rates between companies which predominantly use a field go-to market versus inside sales.



Direct Commissions for Renewals, Upsells and Multi-Year Deals

Excluding Companies <$5MM in 2018 Ending ARR

Commissions on simple renewals are going down every year– this year, almost 50% of the time not paid at all (vs. 35% last year). Meanwhile, commissions on upsells are also trending down (53% pay full commission in this year's results, vs. 68% last year).

Renewals	
Median commission rate on renewals[1]	3%
Percentage of respondents not paying any commission on renewals	47%

Upsells	
Median commission rate on upsells[1]	9%
Percentage (%) of respondents paying full commission[2]	53%

Additional Commission for Extra Years on Initial Contract	
Percentage of Respondents Paying	
No additional commission	27%
Partial commission	20%
Full commission	10%

https://www.key.com/kco/images/2019_KBCM_saas_survey_102319.pdf

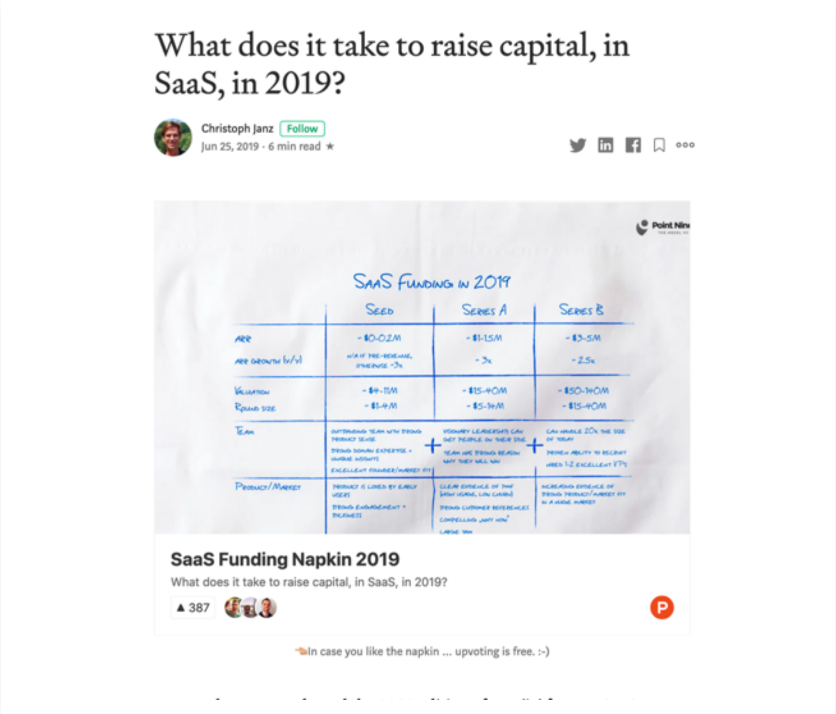
SaaS growth benchmarks

Bessemer Venture Partners Growth Benchmark from USD 1 million ARR starting point

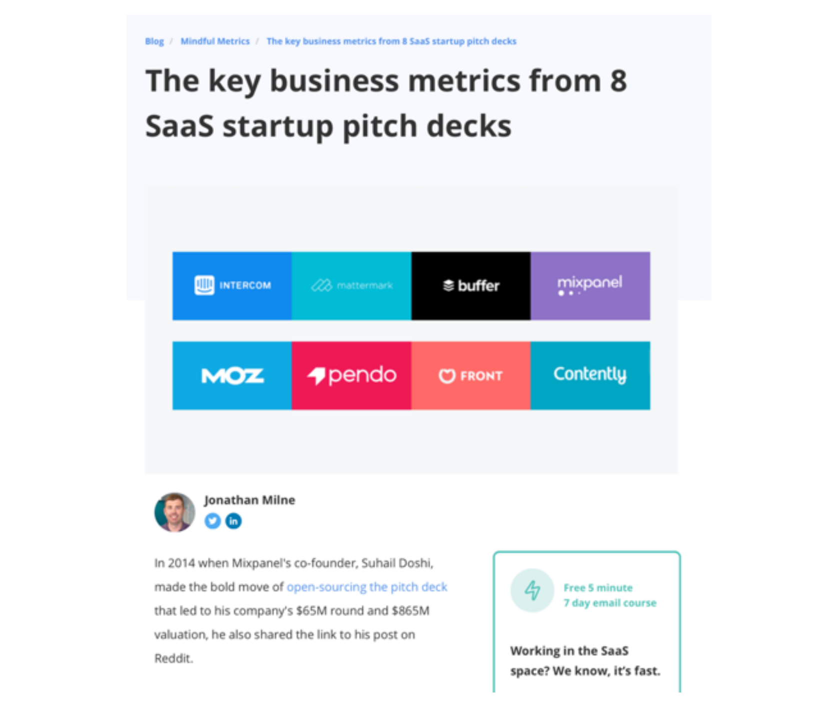
	GOOD	BETTER	BEST
Years to $10M ARR	4 Years	3 Years	2 Years
Years to $100M ARR	10 Years	7 Years	5 Years

https://www.bvp.com/atlas/state-of-the-cloud-2019

Resources



https://medium.com/point-nine-news/what-does-it-take-to-raise-capital-in-saas-in-2019-26829debef29



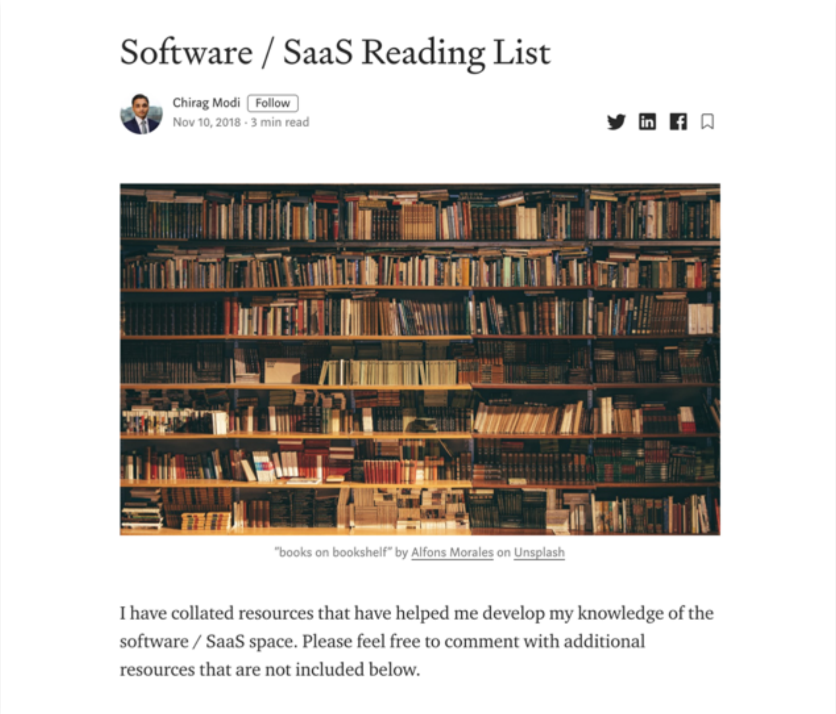
https://www.klipfolio.com/blog/business-metrics-saas-startup-pitch-decks

Resources

https://openviewpartners.com/productbenchmarks/

https://openviewpartners.com/expansion-saas-benchmarks/#.XwVpFJMzZBw

Resources


Software / SaaS Reading List

Chirag Modi Follow
Nov 10, 2018 · 3 min read

"books on bookshelf" by Alfons Morales on Unsplash

I have collated resources that have helped me develop my knowledge of the software / SaaS space. Please feel free to comment with additional resources that are not included below.

https://medium.com/@cmodi/software-saas-reading-list-17f4066db43e

https://www.key.com/kco/images/2019_KBCM_saas_survey_102319.pdf

MARKETPLACES

Marketplace metrics

Gross Merchandising Value (GMV)	User retention (month 2, 6, 12)
Take rate	Order frequency
Net revenue	Average order value
Monthly Revenue Growth rate	Burn rate / runway

Take rate benchmarks (aka “rake”)

Online marketplaces Sample take rates — REFORGE

Company	Take Rate	Source
OpenTable	1.9%	Reservation fee / average meal per person
Homeaway	2.5%	Estimated
eBay	9.9%	Listing fees + marketing fees + PayPal
oDesk	10.0%	10% on top of all work billed
AirBnb	11.0%	3% plus 6-12% depending on transaction size
Expedia	11.9%	Per 2012 10-K
Amazon Marketplace	12.0%	Estimated based on rate table
Fandango	12.5%	Fee charged to user / ticket price
Priceline	18.5%	Per 2012 10-K
TicketMaster	26.0%	Estimate for non box office tickets sold
Steam	30.0%	Rate card
iTunes	30.0%	Rate card
Facebook Credits	30.0%	Rate card
Groupon	38.2%	Calculated from 2012 10-K, not including direct goods
Shutterstock	70.0%	From S-1

Image & data compiled by Bill Gurley *http://abovethecrowd.com*

https://www.reforge.com/brief/the-8-most-important-metrics-for-marketplace-growth#z2WKAyyrIqpG0Rwomb2n2Q

Resources

13 Metrics for Marketplace Companies

by Jeff Jordan, Li Jin, D'Arcy Coolican, and Andrew Chen

marketplaces • growth • metrics • The Marketplace 100

This week, we published the a16z Marketplace 100, a ranking of the largest and fastest-growing consumer-facing marketplace startups and private companies. See the full index and analysis here, and visit a16z.com/marketplace-100 for more marketplace-related content.

Every company tracks certain success metrics—commonly accepted criteria for the health of a business. But when it comes to marketplaces, those measurements can often be imprecisely defined or muddled in their interpretation. Of course, as marketplaces vary widely in their product category and customer base, so do their benchmarks. But the following list serves as a primer for the key metrics marketplace founders should be aware of, both to calibrate their performance and evaluate future potential.

Match rate (aka utilization rate or success rate)

How successfully can the two sides of the marketplace find each other?

The job of any marketplace is to facilitate the matching of supply with demand. It's therefore important to measure your successful "match rate" — the rate at which buyers can find sellers, and vice versa. How to define this metric depends on the unique business.

Match rates examples for particular businesses include:

- Driver utilization time for ridesharing — what % of the time are drivers driving around with a passenger, vs. empty?
- How often are employers actually filling their posted role in job marketplaces? And how often are job seekers finding jobs?

A related metric is to measure "zeros", or unsuccessful matches. For ridesharing, what percentage of users open the app but don't end up requesting a ride? Those "zeros" could be due to too long of a wait time, surge pricing, or something else — all instances the marketplace was unable to clear demand. Marketplace operators should identify reasons why matches *don't* happen and take steps to remove or reduce these blockers through growing and incentivizing the more

https://a16z.com/2020/02/21/marketplace-metrics/

10 Marketplace KPIs That Matter

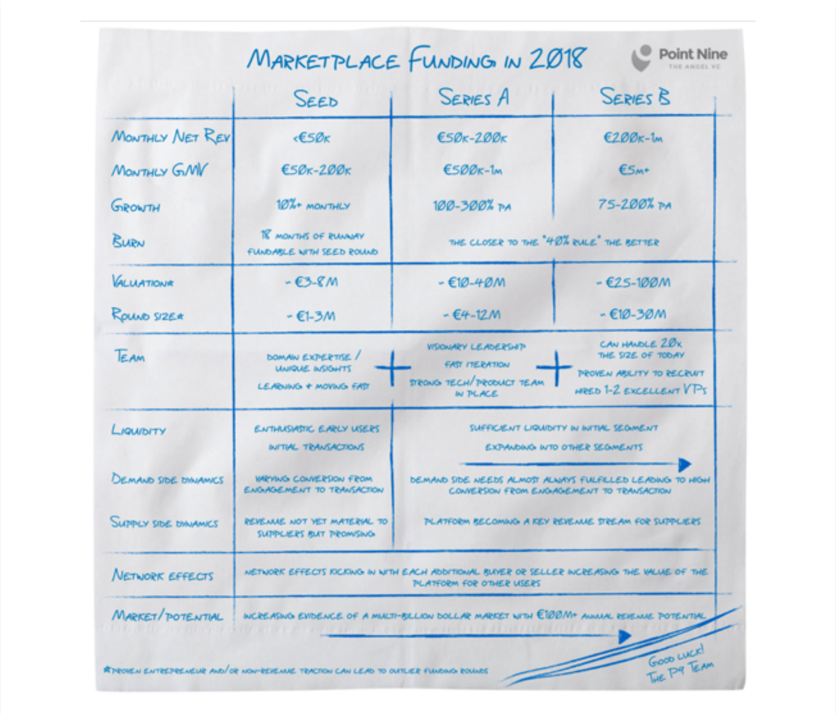
October 31, 2016 - By Andrei Brasoveanu

Marketplaces are incredibly powerful. They are taking every aspect of our economy by storm and changing how goods and services are discovered, priced and delivered. They work for everything from digital goods to food and lodging to getting a great massage at home! And once they have achieved liquidity, their strong network effects make them hard to displace and hyper-scalable.

Yet achieving liquidity and crossing transactions is really hard. We at Accel love marketplaces but we also realize how difficult they are to build. From our years of investing in many types of two-sided marketplaces, we have acquired a deep respect for the entrepreneurs who manage to pull it off. So we wanted to share some of the insights that we have learned over the years to help entrepreneurs

https://mattermark.com/10-marketplace-kpis-matter/

Resources



https://medium.com/point-nine-news/the-marketplace-funding-napkin-2018-847d775a0a55

Unit Economics: The Vital Signs of Online Marketplaces

Published on March 17, 2016

Mike Lloyd
Co-Founder @ Corvus Insurance -- We're Hiring!
1 article + Follow

How can you choose the best online marketplace opportunity and then build it profitably?

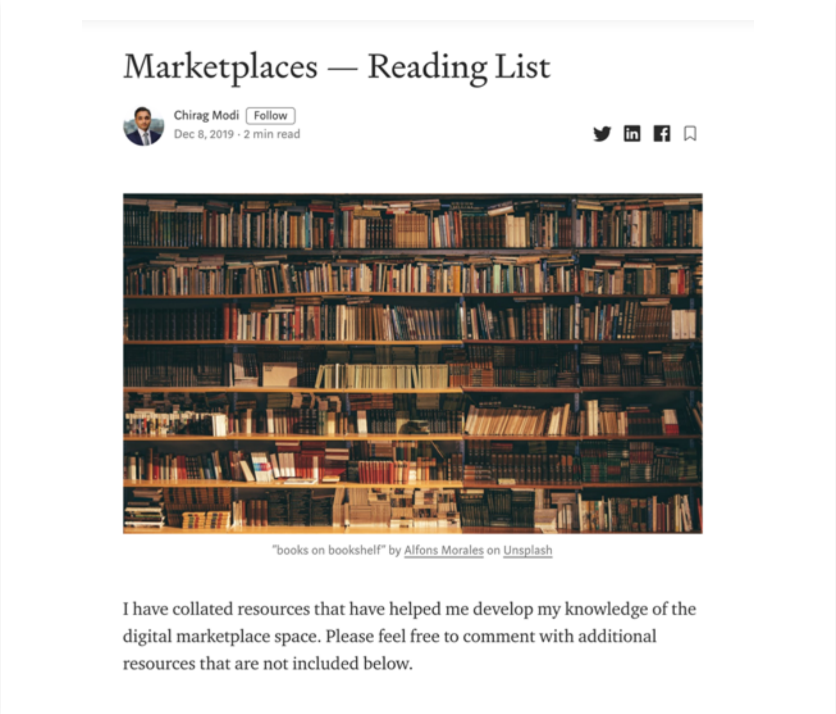
Start by examining its unit economics.

Unit economics for a marketplace are driven by the **lifetime value** and the **acquisition cost** of a buyer or seller. These are the vital signs of a marketplace and they answer the critical question: "How much profit am I making per unit sold?"

Would you rather sell 1 unit for $10,000 or 1,000 units for $10 each? There isn't a right or wrong answer but the architecture of either business is fundamentally different. Let's examine unit economics in more detail so that we can understand how they impact the strategy of a marketplace.

https://www.linkedin.com/pulse/unit-economics-vital-signs-online-marketplaces-mike-lloyd/

Resources


Marketplaces — Reading List

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"books on bookshelf" by Alfons Morales on Unsplash

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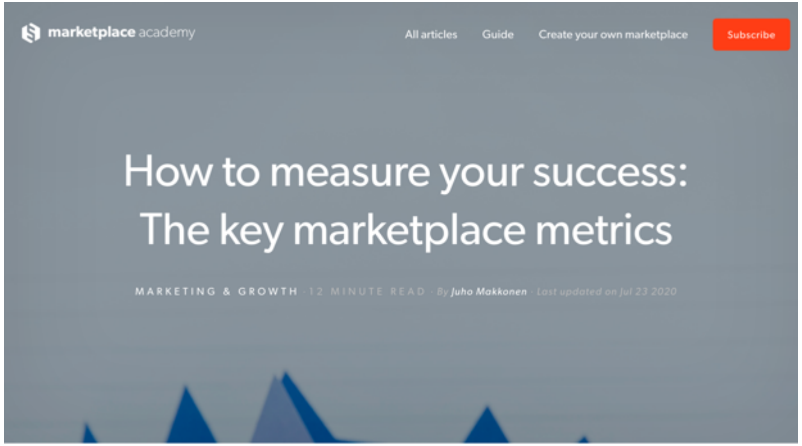
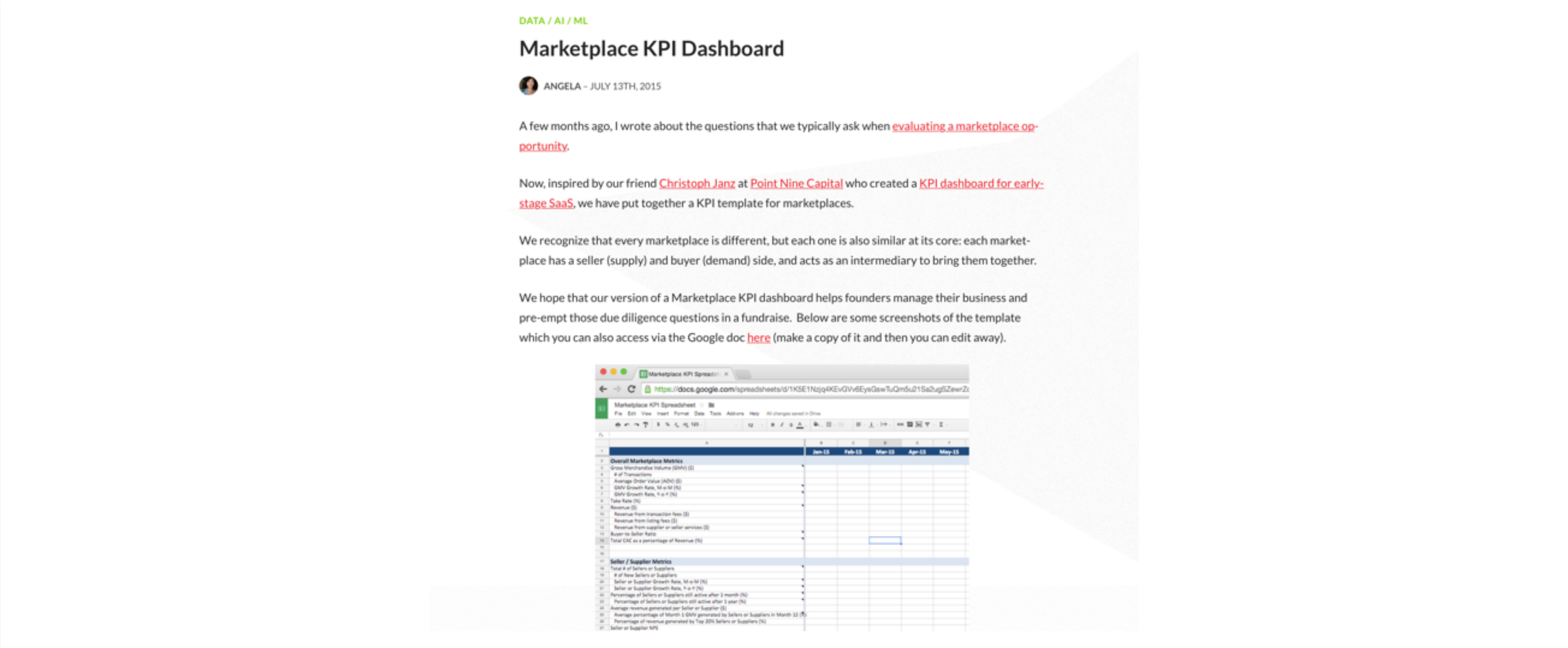
https://medium.com/@cmodi/marketplaces-reading-list-979b5b8e62fa



https://www.sharetribe.com/academy/measure-your-success-key-marketplace-metrics/

Resources



DATA / AI / ML

Marketplace KPI Dashboard

ANGELA – JULY 13TH, 2015

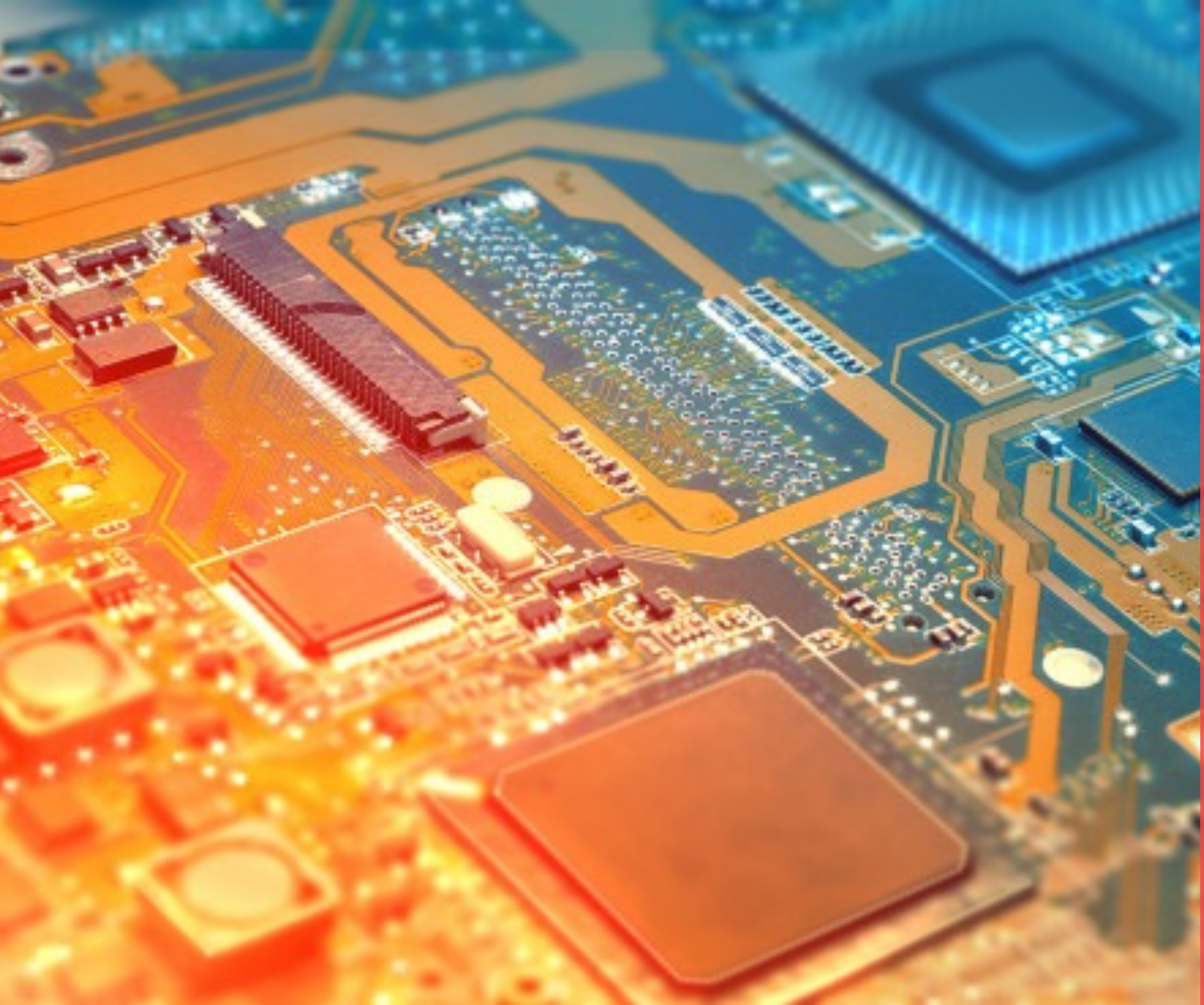
A few months ago, I wrote about the questions that we typically ask when evaluating a marketplace opportunity.

Now, inspired by our friend Christoph Janz at Point Nine Capital who created a KPI dashboard for early-stage SaaS, we have put together a KPI template for marketplaces.

We recognize that every marketplace is different, but each one is also similar at its core: each marketplace has a seller (supply) and buyer (demand) side, and acts as an intermediary to bring them together.

We hope that our version of a Marketplace KPI dashboard helps founders manage their business and pre-empt those due diligence questions in a fundraise. Below are some screenshots of the template which you can also access via the Google doc here (make a copy of it and then you can edit away).

https://versionone.vc/marketplace-kpi/



HARDWARE

Metrics: Hardware

- Monthly Revenues
- Monthly Revenue Growth Rate
- Gross Margin
- Paid CAC
- MSRP / Fully Loaded BOM
- BOM Optimization
- Working Capital Cycle
- Product Return Rate
- Burn rate / runway

Metrics: Hardware

The joke is that hardware startups are hard. That they take 2-4X as long time as planned to come to fruition with 2-4X the capital requirements initially assumed

Fully loaded BOM should be no more than 25%-30% of MSRP (unless pure DTC) to leave for margins in distribution (wholesale / retail)

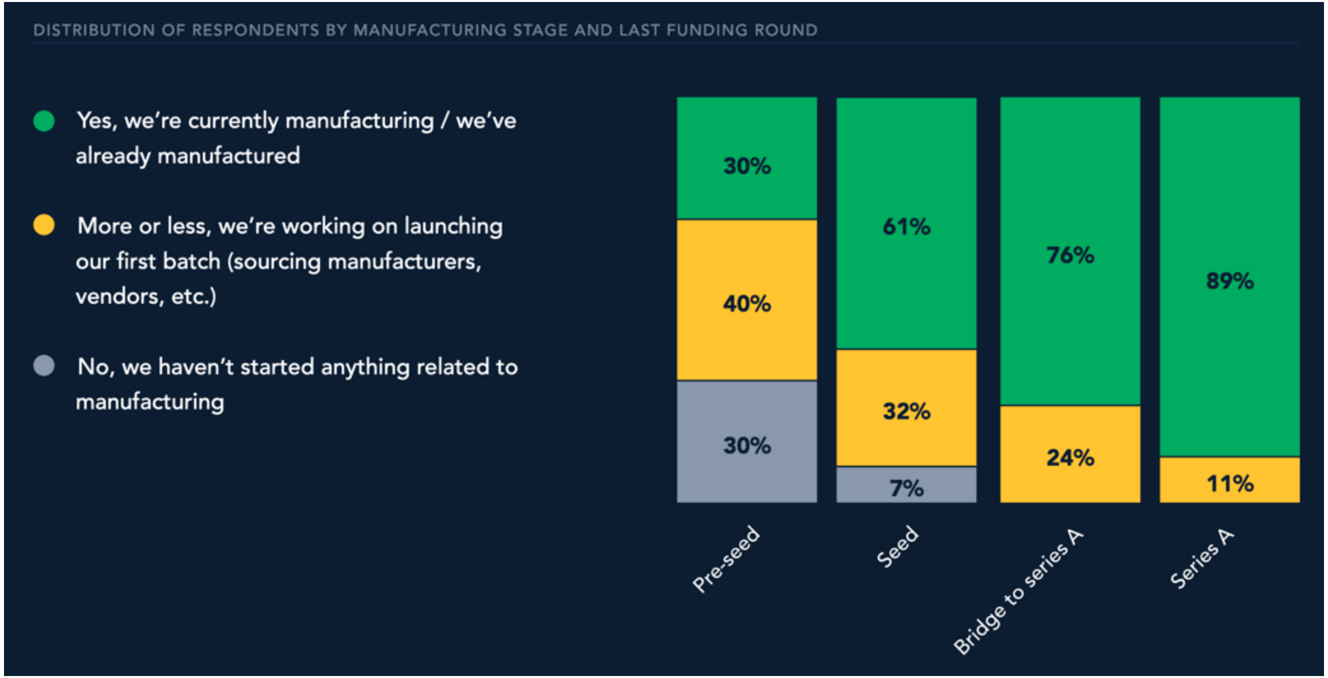
Failure rate and returns are essential given challenge and cost of reverse logistics

Payment terms (net 45, net 60, net 90) create working capital financing cycle

Fully loaded BOM is often underestimated by founders

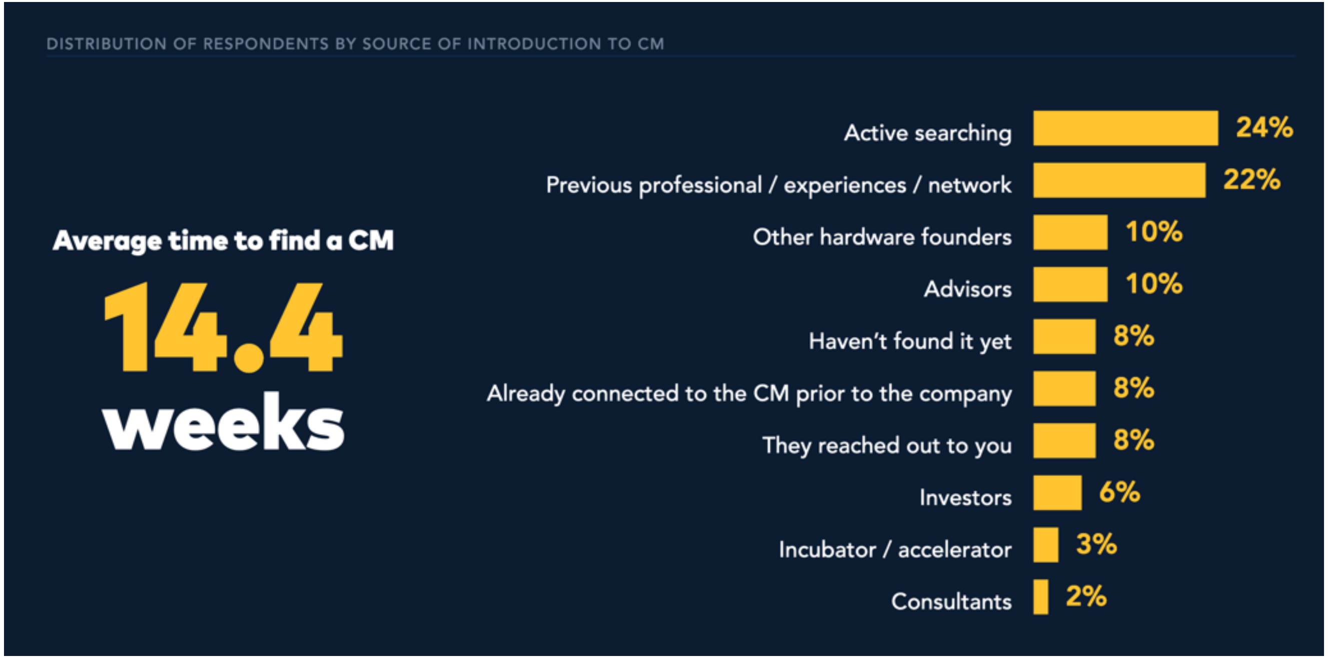
Components	Master cartoon
Assembly	Outer case packaging
Quality control fee	Local logistics
Packaging	Freight forwarding
Instruction manual	Customs fees
Stickers	Destination country warehousing / logistics
Inner case packaging	

Most Hardware Startups need seed funding to begin manufacturing



hardwareclub.co/pages/hardware-startup-report

Time to find a contract manufacturer (CM)



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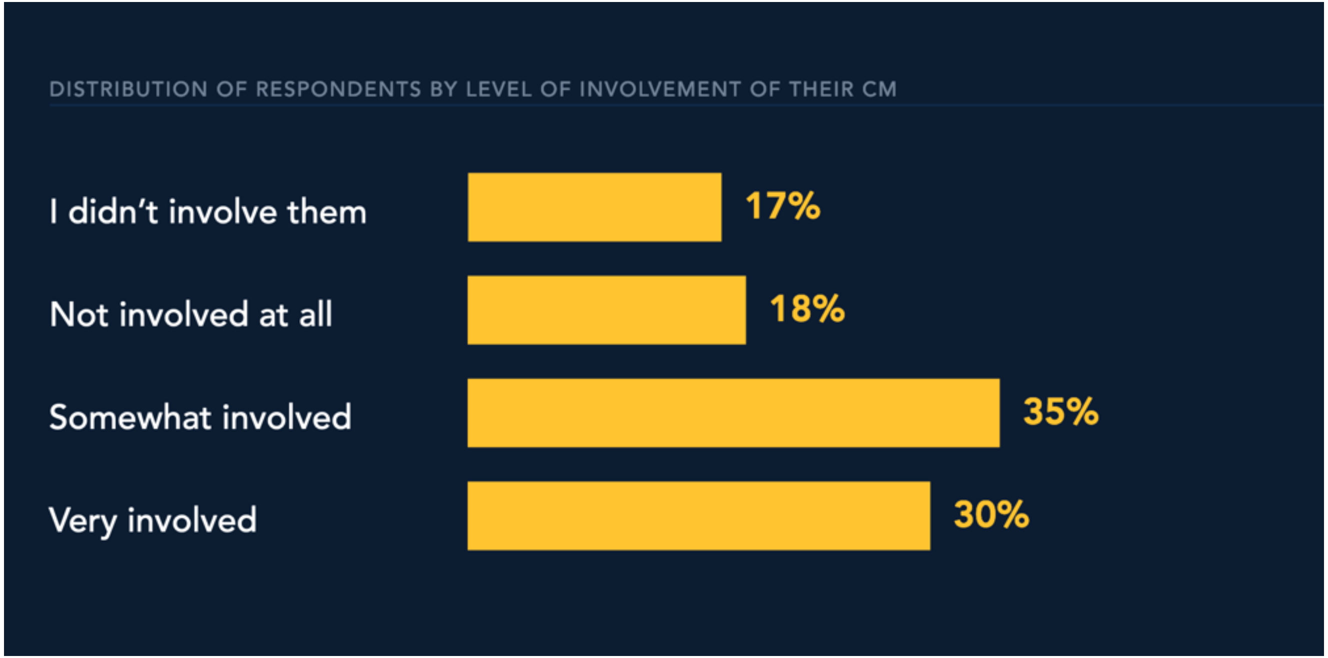
Common for CM to be involved with product development



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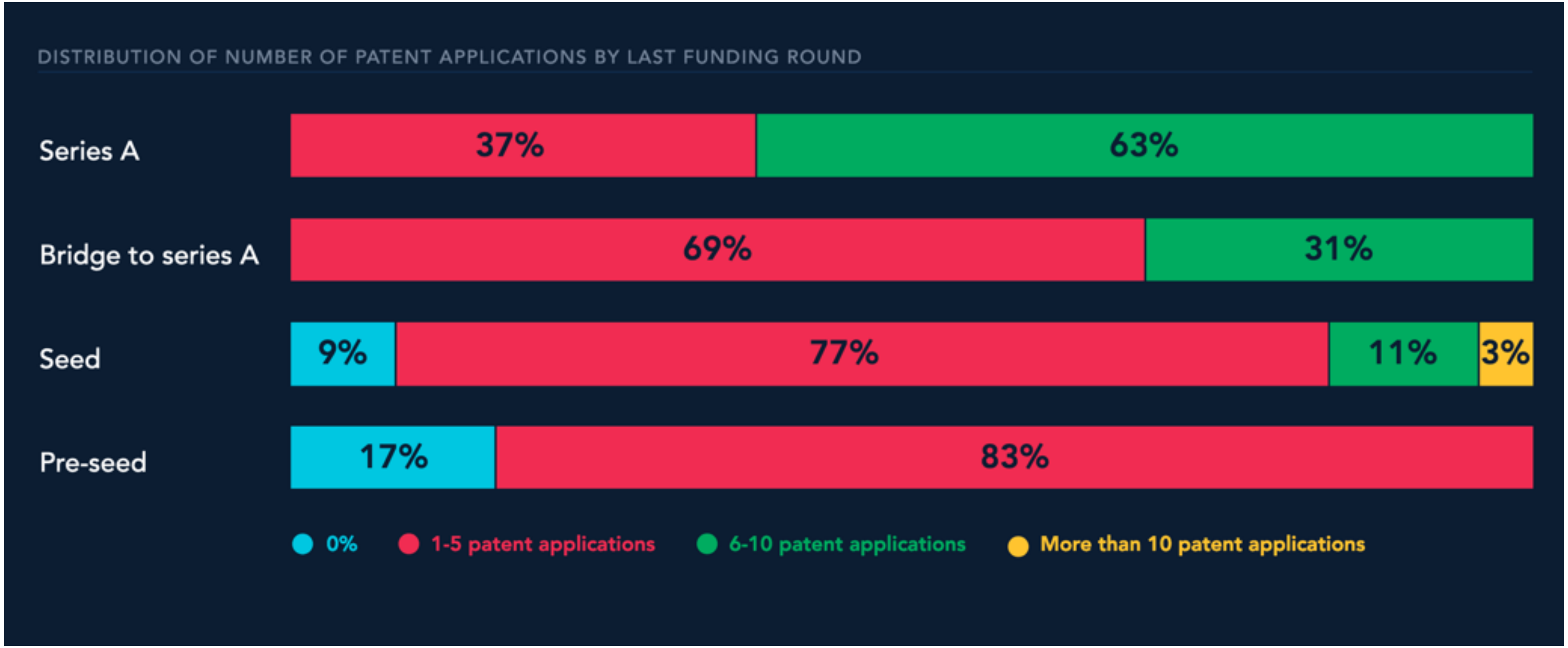
Patents filed by stage



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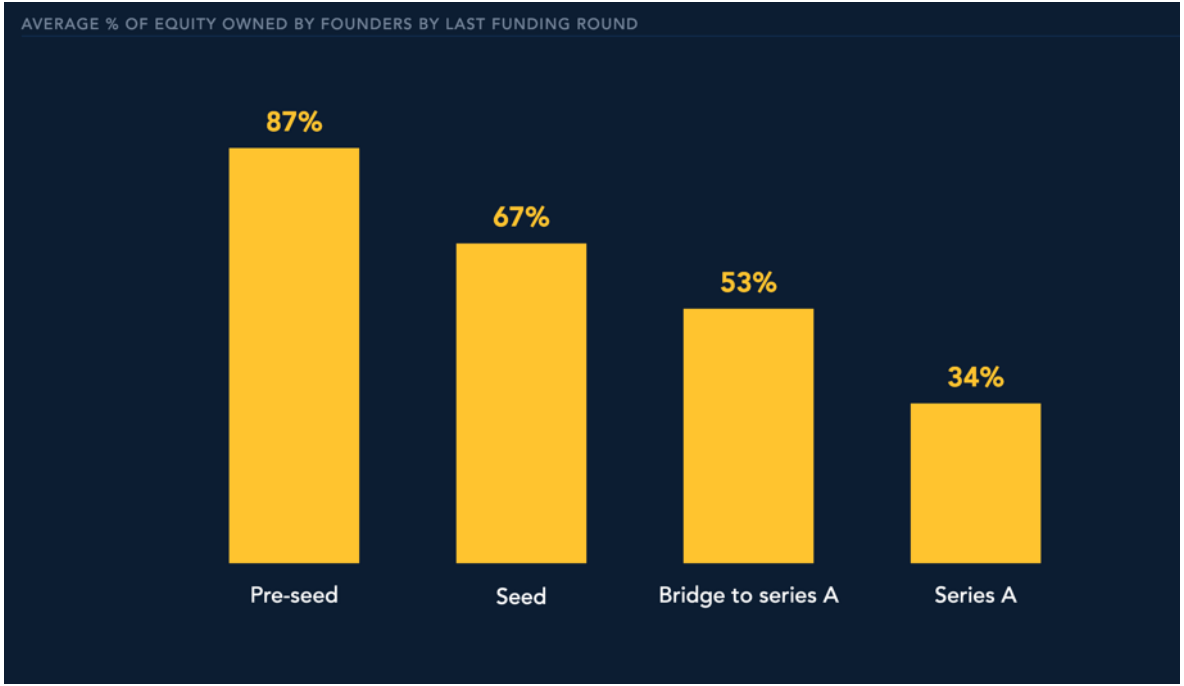
Significant equity dilution of founders for hardware startups



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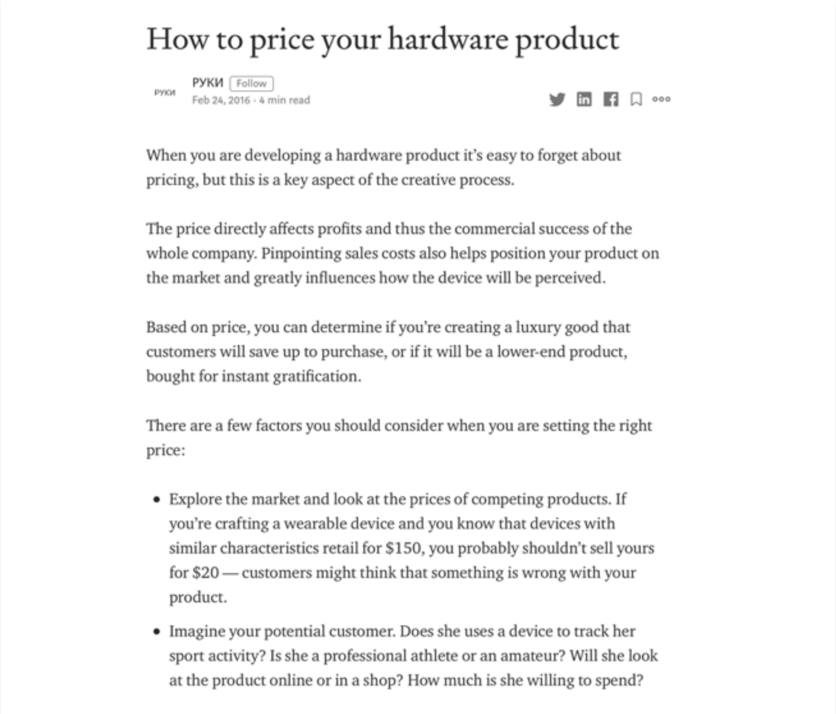


How to price your hardware product

РУКИ Follow
Feb 24, 2016 · 4 min read

When you are developing a hardware product it's easy to forget about pricing, but this is a key aspect of the creative process.

The price directly affects profits and thus the commercial success of the whole company. Pinpointing sales costs also helps position your product on the market and greatly influences how the device will be perceived.

Based on price, you can determine if you're creating a luxury good that customers will save up to purchase, or if it will be a lower-end product, bought for instant gratification.

There are a few factors you should consider when you are setting the right price:

- Explore the market and look at the prices of competing products. If you're crafting a wearable device and you know that devices with similar characteristics retail for $150, you probably shouldn't sell yours for $20 — customers might think that something is wrong with your product.
- Imagine your potential customer. Does she uses a device to track her sport activity? Is she a professional athlete or an amateur? Will she look at the product online or in a shop? How much is she willing to spend?

https://medium.com/ruki-founder-s-journal/price-formation-rules-how-much-your-hardware-product-will-cost-8a3d5b5bfcce

hardwareclub.co/pages/hardware-startup-report


E-COMMERCE

E-Commerce metrics

- Monthly Revenues
- Monthly Revenue Growth Rate
- Gross Margin
- Paid CAC
- Burn rate / runway

FINANCIAL TRANSACTIONS

Metrics: Financial transactions

Gross Transaction Volume

Take rate

Net Revenues

User Retention (month 2, 6, 12)

Paid CAC

Burn rate / runway

ENTERPRISE SOFTWARE

Metrics: Enterprise software (non SaaS)

- Bookings, sum of value of signed contracts
- Revenues, earned revenue (often prorated over the contract agreement)
- Customers, total number of customers
- Sales cycle (time, # of meetings)
- Win rate
- Customer LTV / paid CAC
- CAC Payback
- Burn rate / runway

CONSUMER SUBSCRIPTION

Metrics: Consumer subscription

- Monthly Recurring Revenues (MRR)
- Annual Recurring Revenues (ARR)
- Gross MRR Churn, cohort metric, churn during the month from customers at the beginning
- Paid CAC (if applicable)
- Customer LTV / paid CAC
- CAC payback
- Trial conversion (if applicable) – free to premium
- % Premium to Free Users
- Burn rate / runway

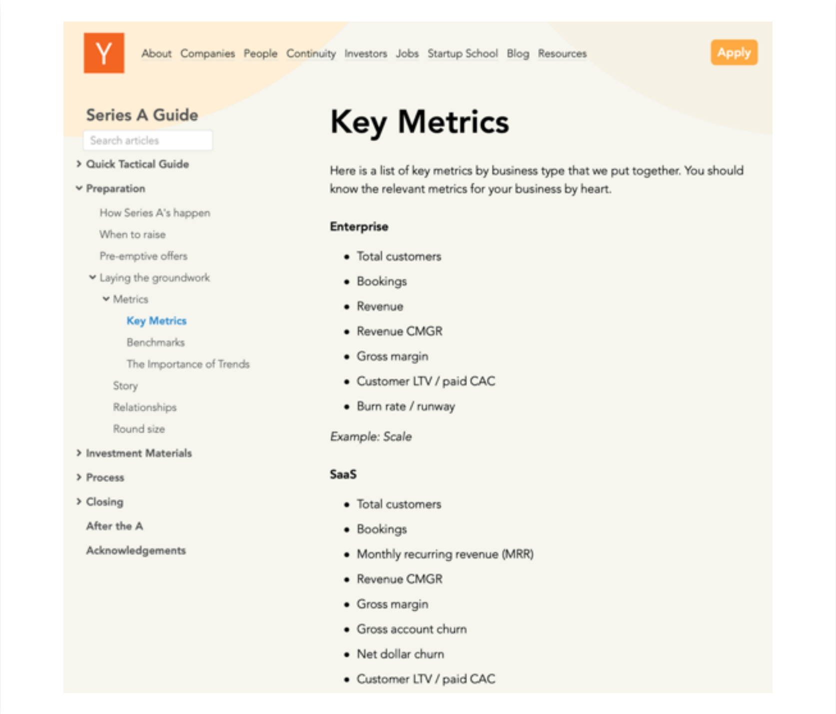
CONSUMER SOCIAL

Metrics: Consumer social

Daily Active Users	Customer LTV / paid CAC
Monthly Active Users	CAC payback
Total Page Impressions	Minutes of Use per Visit
Customer Retention (month 2, 6, 12)	Average cost per impression (CPM)
ARPU	Average click through rate (CTR)
Paid CAC	Burn rate / runway

GENERAL RESOURCES

Resources



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    - Relationships
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- Process
- Closing
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Key Metrics

Here is a list of key metrics by business type that we put together. You should know the relevant metrics for your business by heart.

Enterprise

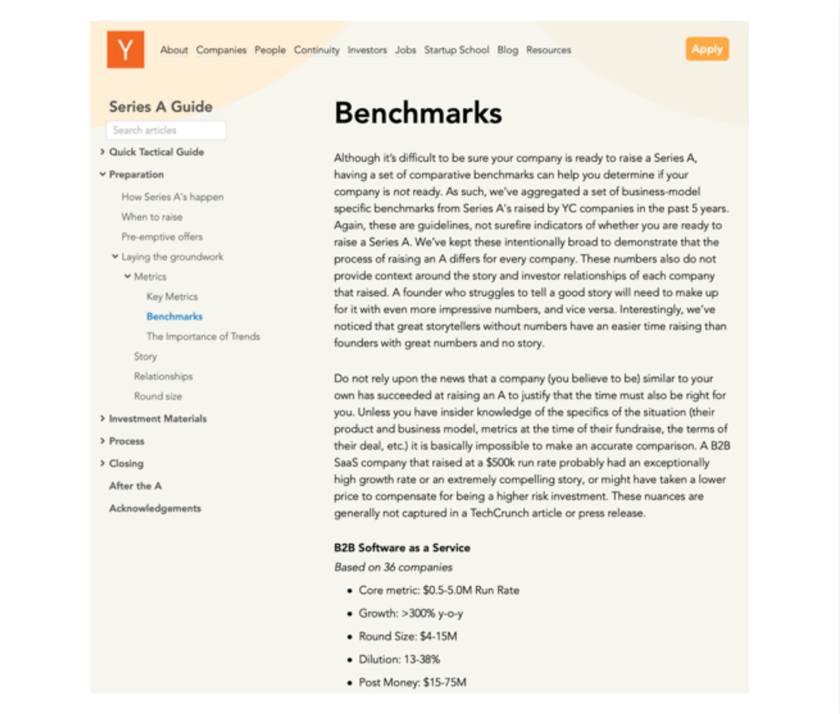
- Total customers
- Bookings
- Revenue
- Revenue CMGR
- Gross margin
- Customer LTV / paid CAC
- Burn rate / runway

Example: Scale

SaaS

- Total customers
- Bookings
- Monthly recurring revenue (MRR)
- Revenue CMGR
- Gross margin
- Gross account churn
- Net dollar churn
- Customer LTV / paid CAC

https://www.ycombinator.com/resources/key-metrics



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Benchmarks

Although it's difficult to be sure your company is ready to raise a Series A, having a set of comparative benchmarks can help you determine if your company is *not* ready. As such, we've aggregated a set of business-model specific benchmarks from Series A's raised by YC companies in the past 5 years. Again, these are guidelines, not surefire indicators of whether you are ready to raise a Series A. We've kept these intentionally broad to demonstrate that the process of raising an A differs for every company. These numbers also do not provide context around the story and investor relationships of each company that raised. A founder who struggles to tell a good story will need to make up for it with even more impressive numbers, and vice versa. Interestingly, we've noticed that great storytellers without numbers have an easier time raising than founders with great numbers and no story.

Do not rely upon the news that a company (you believe to be) similar to your own has succeeded at raising an A to justify that the time must also be right for you. Unless you have insider knowledge of the specifics of the situation (their product and business model, metrics at the time of their fundraise, the terms of their deal, etc.) it is basically impossible to make an accurate comparison. A B2B SaaS company that raised at a $500k run rate probably had an exceptionally high growth rate or an extremely compelling story, or might have taken a lower price to compensate for being a higher risk investment. These nuances are generally not captured in a TechCrunch article or press release.

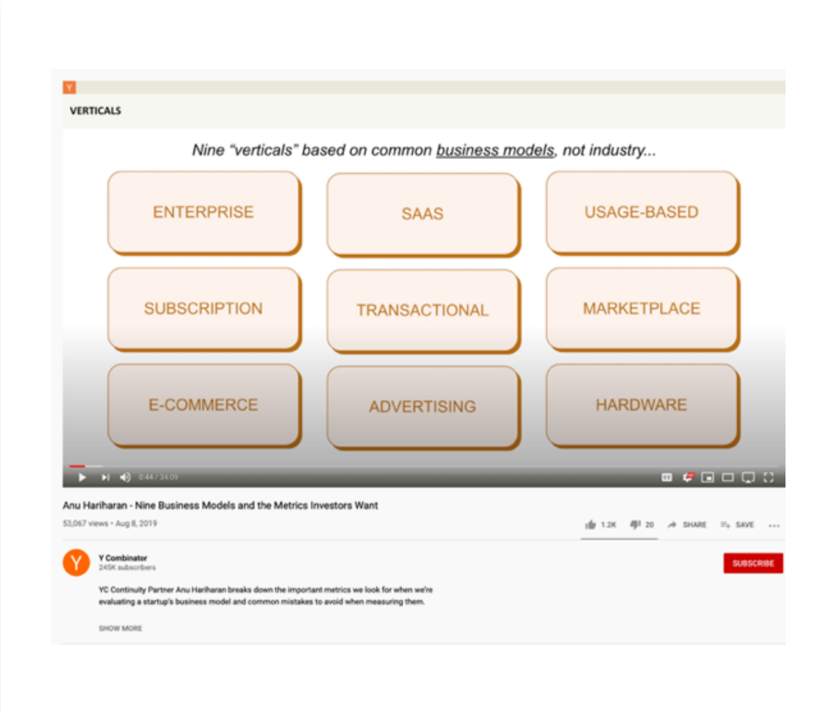
B2B Software as a Service

Based on 36 companies

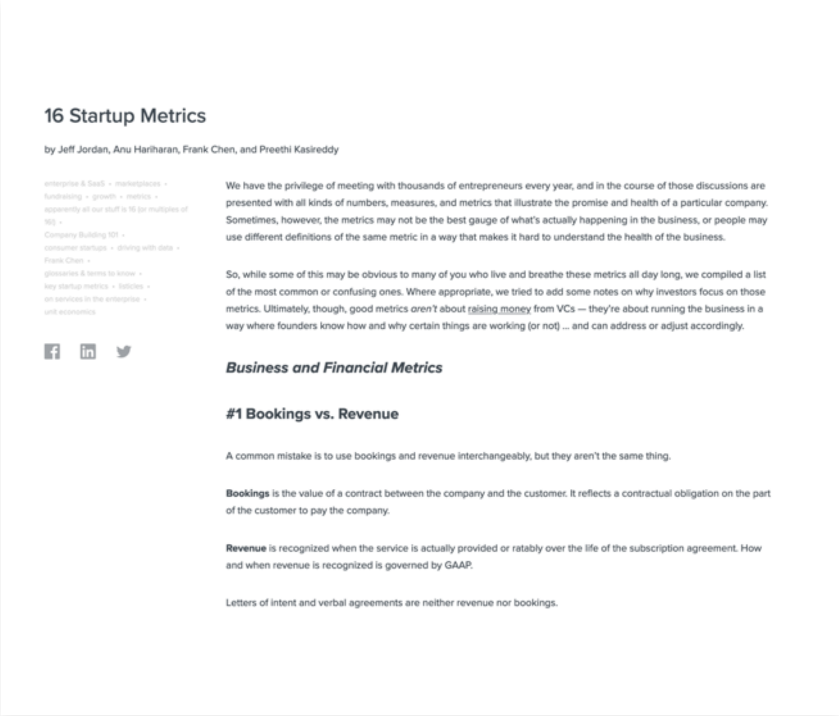
- Core metric: $0.5-5.0M Run Rate
- Growth: >300% y-o-y
- Round Size: $4-15M
- Dilution: 13-38%
- Post Money: $15-75M

https://www.ycombinator.com/resources/benchmarks

Resources



https://www.youtube.com/watch?v=PTg3RZPXgLg



16 Startup Metrics

by Jeff Jordan, Anu Hariharan, Frank Chen, and Preethi Kasireddy

We have the privilege of meeting with thousands of entrepreneurs every year, and in the course of those discussions are presented with all kinds of numbers, measures, and metrics that illustrate the promise and health of a particular company. Sometimes, however, the metrics may not be the best gauge of what's actually happening in the business, or people may use different definitions of the same metric in a way that makes it hard to understand the health of the business.

So, while some of this may be obvious to many of you who live and breathe these metrics all day long, we compiled a list of the most common or confusing ones. Where appropriate, we tried to add some notes on why investors focus on those metrics. Ultimately, though, good metrics *aren't* about raising money from VCs — they're about running the business in a way where founders know how and why certain things are working (or not) … and can address or adjust accordingly.

Business and Financial Metrics

#1 Bookings vs. Revenue

A common mistake is to use bookings and revenue interchangeably, but they aren't the same thing.

Bookings is the value of a contract between the company and the customer. It reflects a contractual obligation on the part of the customer to pay the company.

Revenue is recognized when the service is actually provided or ratably over the life of the subscription agreement. How and when revenue is recognized is governed by GAAP.

Letters of intent and verbal agreements are neither revenue nor bookings.

https://a16z.com/2015/08/21/16-metrics/

Contacts

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