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A guide to product metrics

Fundamentals for defining key performance indicators that enable growth

WHAT YOU'LL LEARN FROM THIS GUIDE

"What success metrics should I be tracking?"

If you build or market products, you've likely asked yourself this question. In this guide, we'll help you find the answer.

We've partnered closely with hundreds of companies on their analytics strategies, and have found there is simply no single set of metrics that works for everyone. Businesses and products are all unique and have different goals based on stage and ambitions.

An e-commerce startup will want to leverage venture capital to acquire new customers quickly, while a 100-year-old bank will be more focused on retention and upsell within an already large customer base.

With these nuances in mind, we've put together a framework to help you find the right metrics for your product. It also helps clarify relationships among all of your metrics, so product managers, engineers, analysts, and growth marketers can see how their day-to-day work on features and campaigns connects to the overall performance of the product.

When the system is working correctly, it looks like Hinge growing their user base 400%, Viber increasing daily messages sent by 15% across a billion users, and Kaplan increasing mobile users by 20% – just to name a few examples we've seen first-hand.

AS YOU READ ON, YOU'LL LEARN:

- How to figure out your set of key metrics, as well as your focus metric
- How active usage, reach, activation, engagement, and retention complement one another in helping you measure the health of your product
- How companies in different industries can customize the core measurement concepts to fit their business
- A simple method for building your own key metrics framework

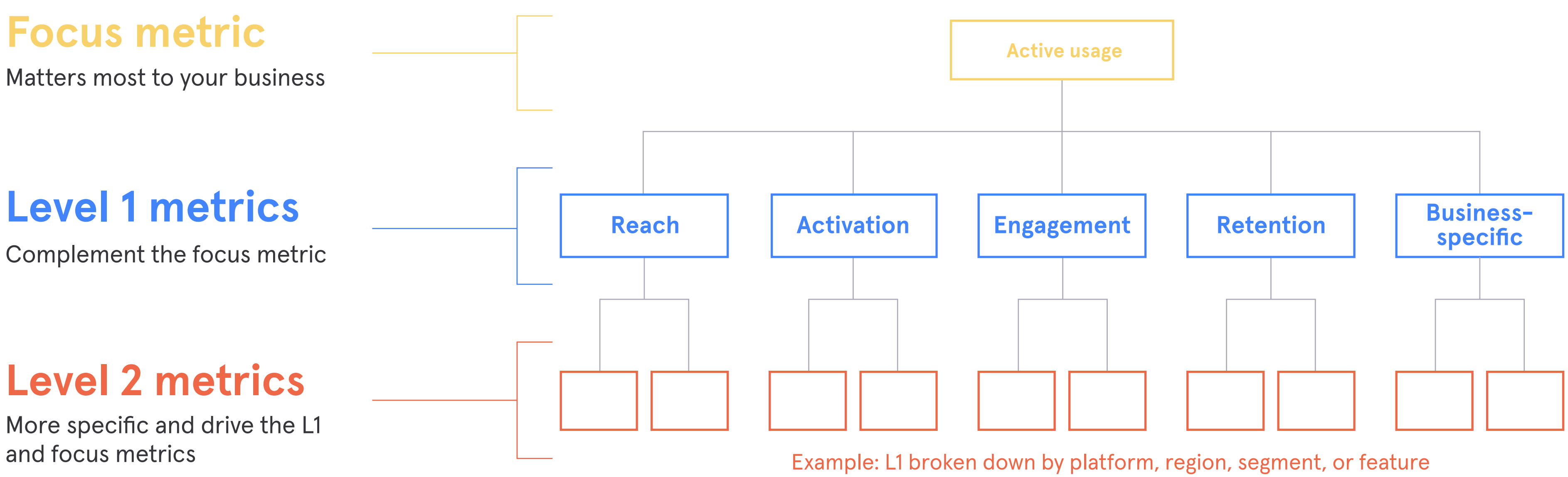
The framework

Every company we've worked with has a handful of metrics that sum up their product's overall performance. But among those, there is typically a metric that is slightly more important than the rest, which we call a focus metric.

Then there are more granular metrics that teams and individuals spend their time on to drive movement in the focus metric. We call these Level 1 and Level 2 metrics.

If a company's metrics are set up well, there is a natural hierarchy and upward flow of impact. An individual achieving their goal should advance the team toward its goal, which should in turn get the department or company closer to its goals.

We'll dive deeper into the metrics categories and how to pick the right measurement framework for your product, but here is a common setup we recommend:



Focus metric

Matters most to your business

If you're experienced with analytics, you've likely heard the term "north star metric" before. The growth and analytics experts at Reforge write well on the topic and explain why a company should have a constellation of metrics, rather than one metric that matters. A single north star can be limiting, and we prefer the softer framing of a focus metric that works in concert with other key performance indicators (KPIs).

Single-mindedly maximizing your focus metric can hurt your product. For example, if a news site cares only about videos watched, they might autoplay videos once a page loads. This ultimately frustrates visitors who don't want to watch the content and drives them to a competitor's site, reducing retention. **Focus metrics should be the top priority, not the sole priority, and improving the focus metric should not be accomplished at the expense of harming other KPIs.**

For this reason, we typically recommend choosing a focus metric tied to active usage, such as Weekly (WAU) or Monthly (MAU) Active Users. These metrics do a good job of summing up trends in other metrics, like acquisition and retention, by showing whether more people are using the product over time. We'll dive deeper into the topic later, but by "active users," we mean people who go beyond visiting or logging in and also take a key action that the product was built for.

To know whether you have a good focus metric, ask yourself this:

> **"If we improve this number will the product's long-term performance improve?"**

CONTINUED

Level 1 metrics

Complement the focus metric

Level 1 (L1) metrics should either directly contribute to the focus metric or act as a check to make sure the product is growing in a healthy direction. For example, if a product's focus metric is WAU, a good L1 metric would be 7-day retention to ensure you aren't spending precious marketing funds to acquire new users who leave after a day or two.

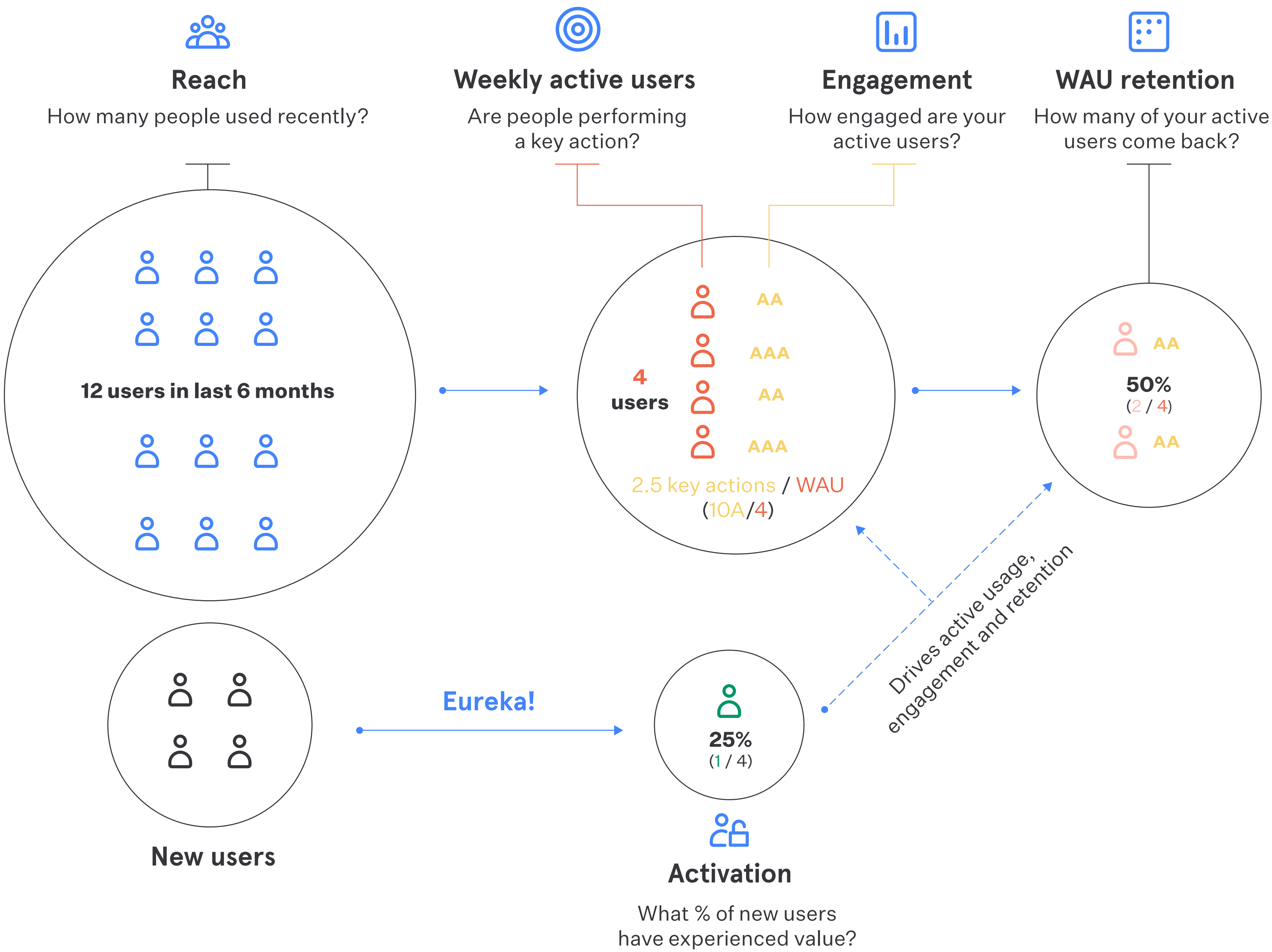
Level 2 metrics

More specific and drive the L1 and focus metrics

This type of metrics framework is infinitely customizable and you can continue adding as many layers as you'd like. To take the retention example one step further, the Level 2 metric could be iOS app retention, and nestled under that could be a Level 3 metric such as the retention of a regional iOS app or a specific feature within the app.

While it's possible to keep adding layers of metrics, be careful about creating confusion around what actually matters. **Having too many goals can be just as ineffective as having none, because everyone will have different ideas about where to spend their time to make the product successful.**

The key metric categories



ZOOMING IN

The key metric categories

Reach

Reach is the total number of people who have used the product in a recent time period. For consumer companies, it could be the number of paid accounts, or users who have made a purchase in the past three months. For B2B companies, this key metric is often product install base or number of paid licenses within the past quarter or year.

Reach is important because it represents the maximum amount of users who could reasonably become active, whether organically or through re-engagement campaigns.

Activation

Activation is a foundational step that primes a new user to become an active user. Famously, Facebook identified adding 7 friends in 10 days as their activation metric when they were a start-up. They found it was a key milestone in driving long-term usage, and thus made adding friends a central part of their onboarding experience.

For other types of products, activation could be defined as registering, making a first purchase, viewing five videos, or making two deposits within a specified time period.

We recommend viewing the metric as a percentage of new users rather than a count, in order to isolate it from natural user growth. That way you can know if you're more successful at activating users over time.

Active users

Active users are people who have taken a key action and received value from your product within a recent time period. Value could be defined as one action, like playing a song, or a set of actions, such as playing 3 songs and creating a playlist.

Products that promote habitual usage, such as Twitter or Instagram, look at DAU. Business software is better viewed through the lens of WAU since it's not always used every day, especially not on the weekends. MAU would be a good fit for a bill payment portal, since bills are usually due monthly.

Active users is the most common focus metric within our customer base since it's a great snapshot of whether more, or fewer, people are getting value out of a product over time.

ZOOMING IN

The key metric categories

Engagement

Engagement is different than active usage because it measures a deeper level of commitment to the product. **It accounts for both the frequency and cadence of completing key actions, answering the question, "how engaged are your active users?"**

Engagement could be defined as the number of key actions taken, minutes of video watched or number of transactions completed. It's important to divide this by your active user count to measure the depth of engagement per user with your product. Otherwise, user growth might mislead you into thinking your product is more sticky than it actually is.

Retention

Retention is the metric that shows whether your product has staying power. Think about what drives retention in two ways: **are you bringing in the kinds of people who will stick around? Are you giving those who have already come through the door enough reason to come back?**

When deciding on time frame for retention goals, pick a range that is long enough to capture the reasonable repeat visit cycle of your customers, yet short enough that teams can get feedback to iterate quickly. We generally recommend having 7-day retention as a leading indicator for 30 or 90-day retention.

Business-specific

If you have the sorts of metrics listed above, as well as L2 metrics that drill deeper in those categories, there may still be some crucial gaps in your analytics strategy. These are often specific to your business model.

For example, **a dating site we work with uses the metric "good churn" to represent users who find a lasting relationship and leave the app.** While this involves losing users, it's good for business because satisfied customers will refer friends, and come back themselves if ever in the market again.

In contrast, a financial wellness company we work with tracks the percentage of users whose account balances increase month-over-month. If that number goes up, it means the product is helping users to budget successfully, which is their differentiating value in a competitive industry.

Industry-specific metric examples

When it comes to the metrics that matter in each industry, here is what we've most commonly seen.

		Financial Services	SaaS	Retail & Ecommerce	Media
Reach	**Question**	How many people have used the product in a recent time period?			
	Sample metric	Account holders, Signed-in users (3-month window), Subscribers	Users from paid accounts, Active licenses	Active buyers (6-month), Paid subscribers	Paid subscribers, Viewers (3-month window)
Activation	**Question**	What percentage of new users have onboarded and experienced your product's value?			
	Sample metric	% of new users who: Made first deposit within 7 days	Completed registration within 30 days	Completed first purchase	Watched 5 videos in the first 7 days
Active usage	**Question**	Are people showing up regularly and performing a key action?			
	Sample metric	Weekly active users (WAU), Monthly active users (MAU)			
Engagement	**Question**	How engaged are your active users?			
	Sample metric	Transactions, Deposits	Viewed reports, Multi-feature users	Conversions, Recommended product views	Minutes watched, Article reads
		Divided by active users (WAU or MAU)			
Retention	**Question**	How many of your active users come back?			
	Sample metric	7 or 30 day retention			
Business -specific	**Question**	How else does your business deliver value?			
	Sample metric	Savings / Debt ratio of users, Fraud events / User	ARR / DAU, Support tickets / WAU	Average purchase price, Cart abandonment rate	Shares / WAU, Multi-device users / WAU

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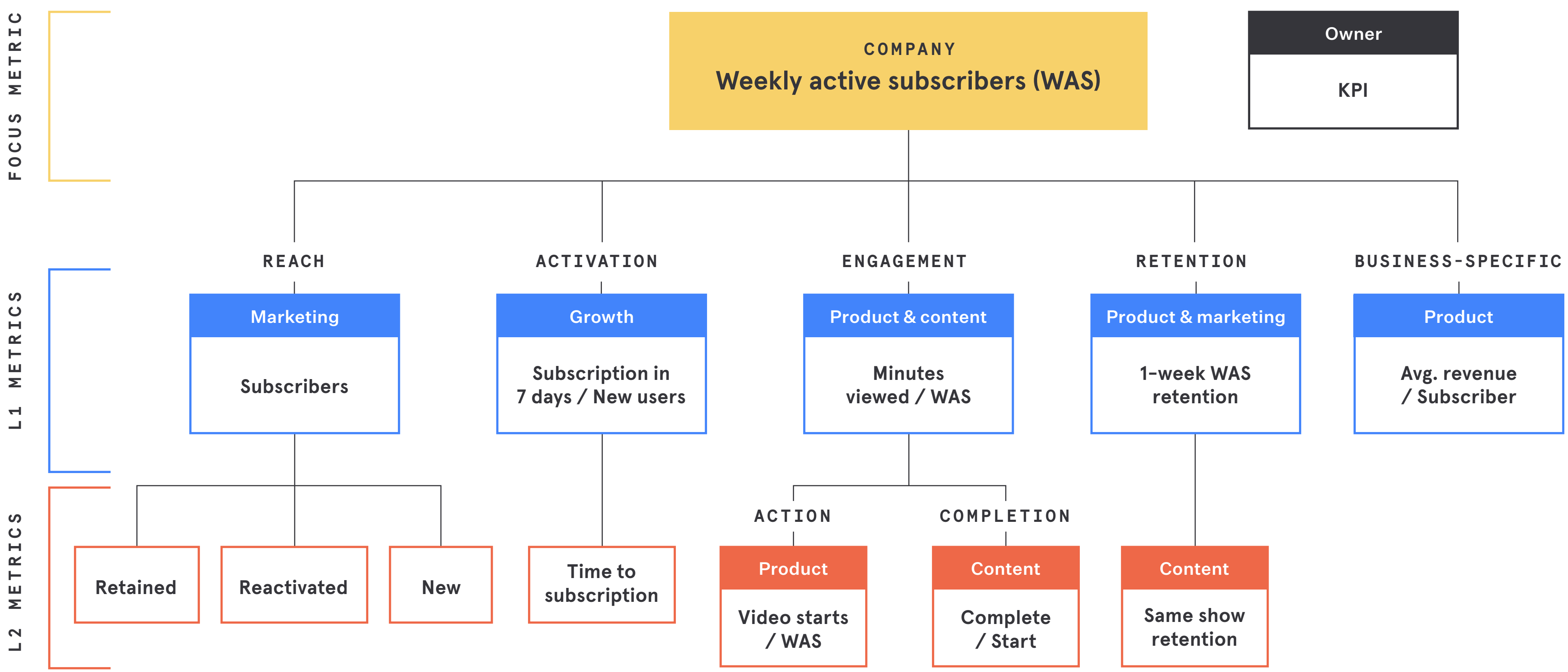
A closer look

Now, we'll walk through successful metrics examples from different industries. Understanding the logic behind the choices these companies made should help you set up your own metrics framework.

MEDIA EXAMPLE

Subscription-based video streaming product

From clothing to food delivery, subscription-based businesses are booming. Their long-term health depends on their ability to attract the right audience, convert them into paid subscribers, provide them with a great experience and retain them as loyal users.



FOCUS METRIC

Weekly active subscribers (WAS)

The crucial aspect of any active user metric is to define what makes a user active. Here, expecting a paid subscriber to watch at least one video every week makes sense, because any fewer would mean they aren't getting enough value to justify the cost of the subscription.

REACH

Subscribers

The number of paid subscribers is the ceiling for weekly active subscribers, making it the right reach metric. Subscriptions are the life-blood of this business because they provide recurring revenue. In exchange for the monthly fees, subscribers expect to receive value that matches or exceeds what they're paying. Otherwise, they'll churn.

For subscriber growth to be healthy, the retained and new subscriber L2 metrics should also be growing. If new subscribers are increasing, but retained are declining, then there is a churn problem. If retained subscribers are growing, but new subscribers are not, then there is an acquisition issue.

ACTIVATION

Subscription in 7 days / New users

This tracks only the new user cohort and shows the percent that become a subscriber within 7 days of their first visit. The one-week timeframe is important because an inability to drive upgrades early on means you need to improve your onboarding or trial experience.

CONTINUED

ENGAGEMENT

Minutes viewed / WAS

This metric quantifies the value each user gets from the product. The more engaged users are, the more value they get. Minutes viewed is a natural measure of value received in a video product, and dividing that by weekly active subscribers (WAS) normalizes the number.

The L2 and L3 metrics isolate the types of engagement so teams can focus on each factor that drives the top line.

Video completions matter because when users repeatedly start new videos then move on, they aren't finding the content compelling and probably won't stick around.

RETENTION

1-month buyer retention

The retention time frame of one week captures the typical viewing cycle. It's long enough to see accurate trends but short enough to make a change if the featured content or product experience is driving down viewership. Monitoring same-show retention will help measure the stickiness of each production.

BUSINESS-SPECIFIC

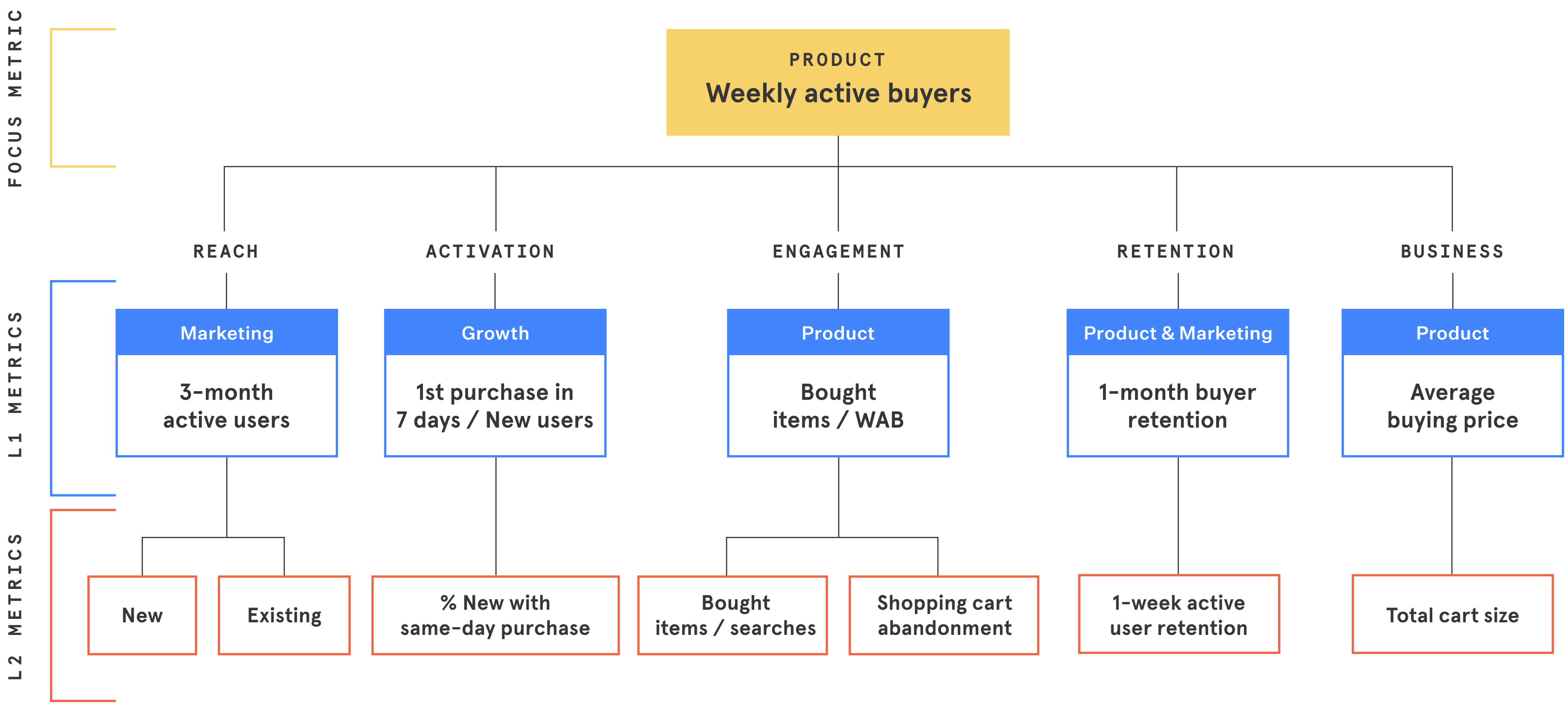
Average revenue / subscriber

This metric is important if you run pricing promotions or test different pricing structures. It's relatively easy to bring in new subscribers with a 50%-off coupon, so use this metric to check whether your growth is healthy and sustainable.

E-COMMERCE EXAMPLE

Online clothing retailer

The company in this example sells affordable clothing, primarily through their website. The product team wants a healthy pipeline of buyers coming through, so their primary goal is to increase that number. By working closely with the growth and marketing teams to increase the reach of the product, they can get the right people in the door, then optimize the site experience to increase cart size and repeat purchases.



FOCUS METRIC

Weekly active buyers (WAB)

In this case, active means making a purchase. Site visitors who browsed may come back, but aren't included in the focus metric because they aren't yet driving value for the business.

REACH

3-month active users

The reach metric also includes people who have searched or browsed recently. This gives product owners a good sense for who may make a purchase in the near future. They've broken this metric into new users and existing ones, and among those, sorted by reactivated and retained.

ACTIVATION

1st purchase in 7 days / New users

This tracks only the new user cohort and shows how many of them make a purchase within seven days of first searching or browsing. The two sub-metrics track the health of specific parts of the user journey, from showing up to purchasing.

CONTINUED

ENGAGEMENT

Bought items / WAB

Multi-item shopping trips are a fast way to increase revenue for this retailer. If the shopper has already found something they like and inputted credit card information, adding items to the cart is minimal incremental effort.

The L2 and L3 metrics dig into specific parts of the purchase funnel so the team can identify problem areas. If cart abandonment is high, they know to focus on streamlining the final stages of the buyer experience.

RETENTION

1-month buyer retention

This looks at whether buyers return to make another purchase the following month, which is in line with this company's customers' buying habits.

To get more immediate feedback, the company tracks one-week retention of users who search or browse. If they don't find what they're looking for, something is going wrong in the period between searching and buying.

BUSINESS-SPECIFIC

Average buying price

This metric measures the average price per item purchased and you should strive for trends that match your pricing strategy. This company's goal is to offer low prices, so they want this number to go down and total cart size to go up. A luxury goods retailer would want a higher average buying price, but in turn, wouldn't expect a large number of items per purchase.

Mixpanel Measurement Framework

Below is a blank metrics template so you can apply the framework to your product. Print this page out and fill in the blanks. Start with a focus metric, then add the level 1 and 2 metrics.

COMPANY NAME:

PRODUCT:

Focus metric

L1 metrics

REACH	ACTIVATION	ENGAGEMENT	RETENTION	BUSINESS-SPECIFIC

L2 metrics

ONE FINAL NOTE

It’s imperative to remember the goal of measurement isn’t just to track change over time; it is to effect change as well. To observe metrics over time requires rigor, discipline and focus. To improve them requires all that plus ingenuity. And that’s what building and managing products is all about.

At Mixpanel, we build the user analytics solution designed to track, manage, and improve the metrics that matter most to businesses in all verticals and growth stages.

Want expert guidance on your analytics strategy?

Mixpanel can recommend a custom measurement framework for your product.
Get in touch and we'd be happy to help

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AUTHOR

Fatih Koca is Director of Analytics Strategy at Mixpanel. He is responsible for supporting Mixpanel customers in developing their analytics strategy and improving data-informed decision making.

Prior to this role, he led the Global Marketing Analytics team at eBay Classifieds Group, where he provided analytics support to 15 market-leading classifieds sites across the globe. His 10+ years of data-related experience spans industries (SaaS, E-commerce, Finance and Aerospace) and analytics domains (Product, Marketing, Customer Experience, Finance and Trade).

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