

RECAP

METRICS

Metrics are quantifiable measures that allow businesses to define and track the success of their product(s) or business activities. Sometimes, product managers also talk about KPIs – key performance indicators – that are key points in building a product roadmap as they allow product managers to evaluate various numerical aspects – engagement, feature usage, user experience, commercial success etc.

Tracking metrics is not a new practice; however, it is becoming more popular the more data there is available for tracking. In the past, the amount of data that could be collected, was limited, and so were also the methods that were used for tracking and analyzing the data available. Today, both the amount of data has increased and will continue to be increasing exponentially and the tools that are available to not anymore require data to be strictly structured for analysis.

There is a saying that “what gets measured, can be improved”, so for product managers, it is mainly important to track the metrics they are interested in improving. Surely, one can always track more than they need to, perhaps only for exploratory purposes at times, but to get things started, there are still a few frameworks that could be used to determine which are the main metrics to track.

A framework that is often used in startups is the Pirate Funnel aka AAARRR. This framework determines six main areas for which metrics could be tracked:

- Awareness – how many people do you reach? (Impressions, attention-minutes, some vanity metrics)
- Acquisition – how many people visit your website? (new leads, e-mail subscribers, resource downloads, sales chats)
- Activation – how many people take the first important step? (sign ups, app installs)
- Retention – how many people come back for a second, third, fourth, ... time? (customer lifetime value, net promoter score, retention rate, churn rate)
- Revenue – how many people start paying? How much do they pay? (customer acquisition cost, trial to paid conversion, first purchase)
- Referral – how many people refer friends to your business? (net promoter score, referrals, social shared, some awareness metrics by channels)

Vanity metrics are numbers/statistics that look nice but have no real meaning. Such metrics could be likes, social shares, social impressions.

Actionable metrics are numbers/statistics connected to specific and repeatable tasks you can improve.

The Pirate Funnel, of course, is just one way of categorizing and remembering various metrics to be tracked. There are, still, many other frameworks as well. In class, we also discussed Google's HEART framework for instance, that categorizes metrics differently, but fundamentally still covers similar aspects to be measured.

Google HEART Framework Example

CleverTap

	GOALS	SIGNALS	METRICS
Happiness	Users find the app helpful, fun, and easy to use	<ul style="list-style-type: none"> • Responding to surveys • Leaving 5-star ratings • Leaving user feedback 	<ul style="list-style-type: none"> • Net Promoter Score • Customer satisfaction rating • Number of 5-star reviews
Engagement	Users enjoy app content and keep engaging with it	<ul style="list-style-type: none"> • Spending more time in the app 	<ul style="list-style-type: none"> • Average session length • Average session frequency • Number of conversions (consuming content, uploading files, purchases, etc.)
Adoption	New users see the value in the product or new feature	<ul style="list-style-type: none"> • Downloading, launching app • Signing up for an account • Using a new feature 	<ul style="list-style-type: none"> • Download rate • Registration rate • Feature adoption rate
Retention	Users keep coming back to the app to complete a key action	<ul style="list-style-type: none"> • Staying active in the app • Renewing a subscription • Making repeat purchases 	<ul style="list-style-type: none"> • Churn rate • Subscription renewal rate
Task Success	Users complete their goal quickly and easily	<ul style="list-style-type: none"> • Finding and viewing content quickly • Completing tasks efficiently 	<ul style="list-style-type: none"> • Search exit rate • Crash rate

Product managers are oftentimes also interested in tracking engagement. User engagement metrics for apps help teams understand how much value users find in the app and this by making an assumption that if users spend time using the app, then they find it valuable. Metrics that you could categorize under engagement metrics are for instance active users (daily, weekly, monthly) and various coefficients calculated using the number of active users. For instance, some product managers calculate stickiness (stickiness = average daily active users / monthly active users). Some focus on tracking session intervals, session lengths, time spent on websites/apps. One of the common metrics that is being tracked is also basic retention rate.

Retention rate = (# of customers at the end of the period - # customers acquired during the period) / # of customers at the start of the period

Some prefer measuring churn instead, which, when you know how to calculate retention, is simple.

Churn = 1 – retention rate

A popular metric that's used to measure the loyalty of customers is the net promoter score (NPS). NPS is calculated based on responses to a simple question: How likely is it that you would recommend our product to a friend or colleague? The answer can typically be given on a 0 to 10 scale. Recently, NPS has started

gaining criticism for various reasons. A good article we recommend you read about that is available at <https://hbr.org/2019/10/where-net-promoter-score-goes-wrong>

While NPS might give indication about hypothetical recommendations of existing customers, some product managers measure their products viral coefficient instead, which is a number that's based on real actions their users have already taken. Viral coefficient measures the number of new users an existing user generates, regardless of whether this has been intentional or not. Virality is the likelihood of something being shared and spread widely among different users, readers, or customers online.

Viral coefficient = # of invitations sent per users (referrals, shares, ...) * average conversion rate of those invitations

In class, we also discussed some revenue metrics, mainly the customer acquisition cost (CAC) and customer lifetime value (CLV). CAC is the cost of you getting a potential customer to buy your product. Some also measure cost per acquisition (CPA), which is similar, but not the same as CAC. CPA measures the cost to acquire something that is not a customer, for instance a registration (free user), trial activation. CLV is the revenue you earn from a customer during their lifetime as a customer. Note that for CLV, sometimes also an abbreviation LTV (lifetime value) is used – these are the same thing.

$$\text{CAC} = \text{Total amount spent to get new customers} / \text{total number of new customers}$$

$$\text{Simple CLV} = \text{Profit} * \text{Years} - \text{CAC}$$

A sustainable company would typically have a ratio of 3:1 between CLV:CAC. Of course, the higher the ratio, the better (typically).

DISCUSSION

The seminar case was about Wolt and a few metrics that were proposed to be used. You, as an applicant for the position of a software product manager, were asked to give some input, specifically if the metrics are good or not and what other metrics you would propose.

One can use the pirate funnel as a framework, but one could also do without it. Both are ok. The metrics are not about the framework used but about the numbers that give insight into reality. In doing this case, here are some points to consider.

Some metrics are better expressed in relation to something else such as “out of X”. Just having an absolute number fails to clarify if it is good or not. As a company, growth is important and as such, the aim is to reduce churn rate, improve retention rate, improve CLV etc.

As to the metrics given in the case, here are some comments.

DAU is not good for this context. Food delivery is not something customers order daily. Following the nature of the value proposition and the customer behavior, WAU would perhaps be better. Furthermore, in this case, the WAU would be based on the city. Furthermore, a number such as 120 does not say if it is better or worse so the metric should also be expressed in relation to previous period.

Orders made is much better to monitor on a daily basis. But again, compared to what? If number of orders yesterday was 800, then 120 today is bad, but if the number of orders made yesterday was 18, then 120 today is good. Consider the time period!

CAC is one of those good old metrics that always is good to follow and keep a track on. If it is decreasing, it's all good. If not, the matter must be investigated closer.

Average order size is a good metric here. We can use this metric to see trends and draw conclusions on how to improve the product and/or marketing. We can note that if it is raining, order size grows. More importantly, we can monitor the development of the order size when we introduce new features. This metric can also help us to detect anomalies in user behavior.

Revenue is always good. Cash is King. At the end of the day, what matters is that the revenue grows. If the trend is negative, then it is of vital importance to investigate and by means of other metrics, find out why the revenues are declining or have stagnated. Likewise, with previous metrics, we are not only curious about the total revenue, but also the relation against previous revenue (for specified time period). The comparison can also be against weekly average. One has to consider what time perspective is most reasonable. We can see that the average order size is 16€ and we have 88 orders, making a daily revenue of 1408€.

As to additional metrics to add that would be helpful. "delivery time", "rating" or "average number of orders per user" can be added. The metric for delivery time might lead us to optimize the algorithm for delivery whereas rating reflecting satisfied customers can help us train the delivery persons (if needed). These metrics can also be used to create incentives for the delivery persons. What is important is that the metric measure something we can do something about. For instance, we could ask the customers to rate the food. However, tracking that metric is not as efficient as average number of orders per week or month. The reason is that we cannot do much about the food quality, but we can surely do things to help the average number orders to increase.