# Cracking the PM interview \*\*

North Star Metric with deep-dive into Airbnb, Spotify and Uber

# North Star Metric - Most important metric for a company (1/3)

The most important product metric for any company is

North Star Metric.

What exactly is North Star Metric (NSM)?

North Star Metric is one of the most important metrics for businesses to track. It measures the performance of the business with respect to its goals.

It is one of the product metrics that companies/PMs track religiously. NSM is the metric that matters the most.

Usually, companies have 1 north star metric; However, in certain cases there can be 2 and in rare cases, it can be 3.

Stick to one or at max 2 NSMs. Too many can deviate you from what matters. 1



# North Star Metric - Most important metric for a company (2/3)

#### **Attributes of NSM**

- [1] It is a direct indicator of your business success.
- [2] It is simple to measure.
- [3] It should not have a defined ceiling, i.e., there should be a sufficient scope to grow this metric.
- [4] Most of the projects (if not all) that are done in the organization are directly or indirectly linked to the NSM.

#### Types of NSM

- [1] Financial NSM Revenue, gross merchandise value, gross margins, profit margins, etc.
- [2] **Traffic** Daily active users, Weekly active users, Monthly active users, etc.
- [3] Engagement/Retention Average session duration, DAU/MAU, Number of users visiting the platform twice or more in a month, etc.
- [4] **Consumption** Number of searches on Google search engine, time spent on watching on Netflix, etc.
- [5] Customer/User growth Number of registered users, paid users, etc.
- [6] Customer experience Net Promoter Score, Website ratings, App Store/Play Store ratings, etc.

# North Star Metric - Most important metric for a company (3/3)

Can North Star Metric change for a business?

Yes, NSM for a business can change. It usually changes when a business pivots from one model to another, or when the stage of the business changes.

Example: a well-funded startup may consider registered users as the NSM in its growth stage. The same company may consider profit as the NSM when it goes public.

### **Examples:**

Airbnb - Number of nights booked

Spotify - Time spent listening on the app

YouTube - Time spent watching videos

**Uber** - Number of rides booked/week

# **Airbnb Deep-dive**

# North Star Metric of Airbnb (1/4)

Do you know what Airbnb's North Star Metric is?
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Occupancy rate?
Revenue?
Number of bookings?
Number of users?

No!

It's the number of nights booked.

Let's dive into it and see why this looks like the right NSM for Airbnb.

A North Star Metric is one such metric which defines the success of the business. Companies should be able to sufficiently grow it, i.e. it should not hit a ceiling and give an incorrect picture of the scale.

# North Star Metric of Airbnb (2/4)

You think of any project, it will directly or indirectly impact the NSM - number of nights booked for Airbnb.

- [1] You enter into new markets and grow customer base → impacts # nights booked
- [2] You target existing customers through personalized campaigns → impacts # nights booked
- [3] You play with the pricing (increase or decrease) → impacts # nights booked
- [4] You improve customer experience through better UI/UX → impacts # nights booked
- [5] You get more hosts → Add more nights → More options to users → impacts # nights booked
- Likewise, you may think of any project, it will directly or indirectly impact this NSM.

# North Star Metric of Airbnb (3/4)

Let's look at other contenders as well.

[1] Occupancy rate

This is the most common metric tracked by hotel chains.

The difference between hotel chains and Airbnb is that hotel chains have finite and limited inventory. They would want to fill all the available rooms and be happy with it.

On the other hand, this is not the case for Airbnb. It can significantly increase inventory and scale it up very quickly, very fast and at minimal cost.

If you hit 100% occupancy rate, it will give you a false sense of accomplishment that you are doing great. Whereas, it may happen that you have achieved 100% occupancy rate with very less inventory.

You don't get a complete picture with this metric.

# North Star Metric of Airbnb (4/4)

[2] Number of users registered on the platform

Number of users registered on the platform could be a direct function of money spent on marketing. More money you spend, the more users you get.

However, it's not necessary that these users are booking. Again, this could give a false sense of accomplishment and not the real picture.

[3] Revenue

Yes, this could be. In fact, for the majority of the companies revenue is the north star metric. However, this is the final outcome of increasing your product north star metric and is true for any revenue making company.

So, think of NSM from a product perspective, and not revenue perspective. Otherwise, you will more often than not end up with revenue as the NSM.

# **Spotify Deep-dive**

# North Star Metric of Spotify (1/3)

What is Spotify's North Star Metric? .

Number of users?

Number of subscribers?

Time spent listening?

Revenue?

What do you think?

It's 'time spent listening' to content by users.

# North Star Metric of Spotify (2/3)

You add more artists  $\rightarrow$  users listen to more songs  $\rightarrow$  improves time spent listening.

You improve recommendation  $\rightarrow$  users listen to more songs  $\rightarrow$  improves time spent listening.

Nudge users to create playlists  $\rightarrow$  users listen to more songs  $\rightarrow$  improves time spent listening.

Ease of sharing songs with others  $\rightarrow$  improve accessibility & discovery  $\rightarrow$  users listen to more songs  $\rightarrow$  improves time spent listening.

Low latency (less load time to start a song)  $\rightarrow$  less users dropping off  $\rightarrow$  users listen to more songs  $\rightarrow$  improves time spent listening.

Add more podcasts  $\rightarrow$  users listen to more podcasts  $\rightarrow$  improves time spent listening.

Sign-up new users  $\rightarrow$  users listen to more songs and podcasts  $\rightarrow$  improves time spent listening.

Nudge existing users through notifications/emails  $\rightarrow$  users open the app  $\rightarrow$  users listen to more songs and podcasts  $\rightarrow$  improves time spent listening.

Likewise, any and every project you do will have an impact on the north star metric - time spent listening.

# North Star Metric of Spotify (3/3)

Essentially, if you see (and observe for yourself), the more time you spend listening on Spotify  $\rightarrow$  the more hooked you are to the app  $\rightarrow$  the more dependence you create on it  $\rightarrow$  the higher the likelihood of becoming a paid member.

Obviously, this will not be a 100% conversion funnel but this will be essential to push users to become a paid member.

Revenue?

Naaah!

Revenue is the price that your customers pay, while your North Star Metric is the value that your customers get back for that price.

Revenue is not a great north star metric to have. If you consider it, then all revenue making businesses will have nothing but revenue as the NSM.

# **Uber Deep-dive**

# North Star Metric of Uber (1/3)

What is Uber's North Star Metric?
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Revenue?
Number of users?

No!

Number of drivers?

It's the number of rides per week.

Yes, Uber counts total number of rides per week as the most important metric for them (North Star Metric).

## North Star Metric of Uber (2/3)

Let's break it down and see why 'number of rides' is a strong contender for NSM. Per day or per week or per month - we will figure out later on.

- [1] You increase number of rides → You increase revenue
- [2] You get more users  $\rightarrow$  You increase number of rides
- [3] You get more taxi drivers → Impacts number of rides
- [4] You expand geographically → Impacts number of rides
- [5] You increase or decrease price → Impacts number of rides
- [6] You increase/decrease commission from drivers → Impacts number of rides
- [7] You improve customer experience → Impacts number of rides
- [8] You reduce time to book a cab → Reduces drop-offs → Impacts number of rides

Any project you pick up, it would directly or indirectly impact number of rides - how much impact and how will you measure the impact is a different thing altogether. This has established 'number of rides' as the strongest contender for NSM for Uber.

### North Star Metric of Uber (3/3)

Now, should it be rides/day or rides/week or rides/month - what is the right measure? It actually depends on the frequency of consumption of service by the user.

My take here is that the company expects users to take at least 1 ride/week and that's what they want to optimize for.

#### Why 1 ride/week?

It could be visit to office.
It could be a weekend outing.
It could be anything.

As an outsider, it may be difficult to say if it will be rides/day or rides/week, but 'number of rides' should be clear.

Even if you are able to identify this in your interview, I think you are 90% there.

A lot of you may consider revenue as the NSM, but please remember "Revenue is the price that your customers pay, while your North Star Metric is the value that your customers get back for that price."

I personally feel revenue is a lazy NSM as it doesn't talk about product at all. NSM is usually driven from product and revenue is the final outcome of that.

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- → Questions asked by various companies in PM interviews
- → How to get into product management?
- → Product management case studies
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