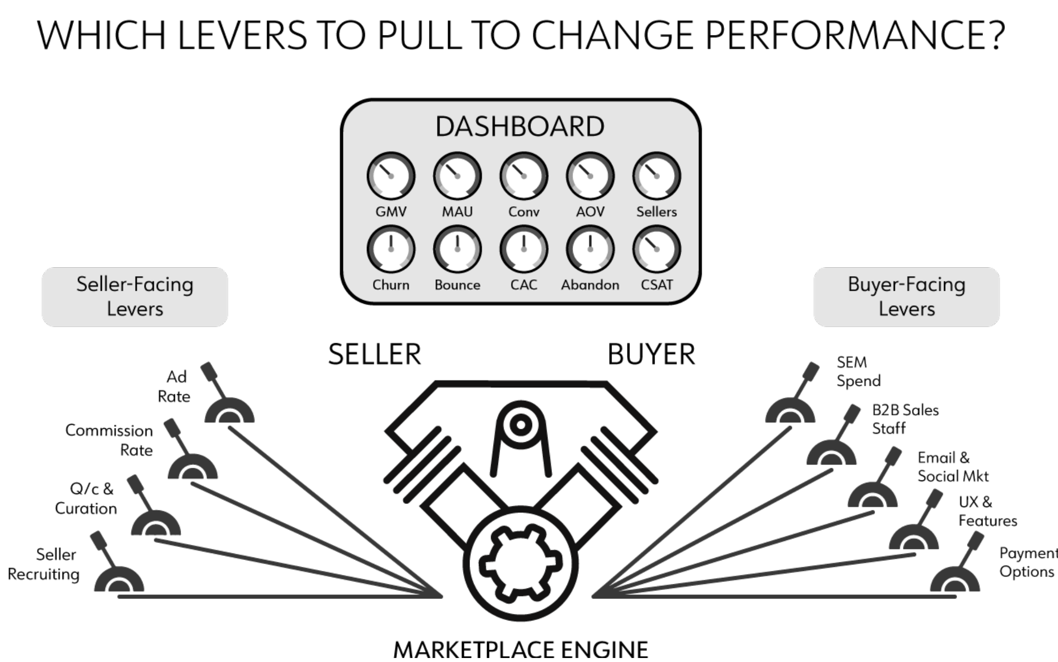
Chapter 21: Key Performance Indicators (KPI's)

"The price of light is less than the cost of darkness."

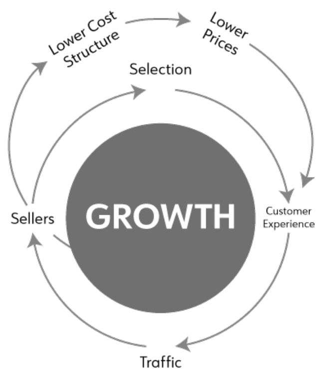
Arthur C. Nielsen, Modern Marketing Research Pioneer

Introduction

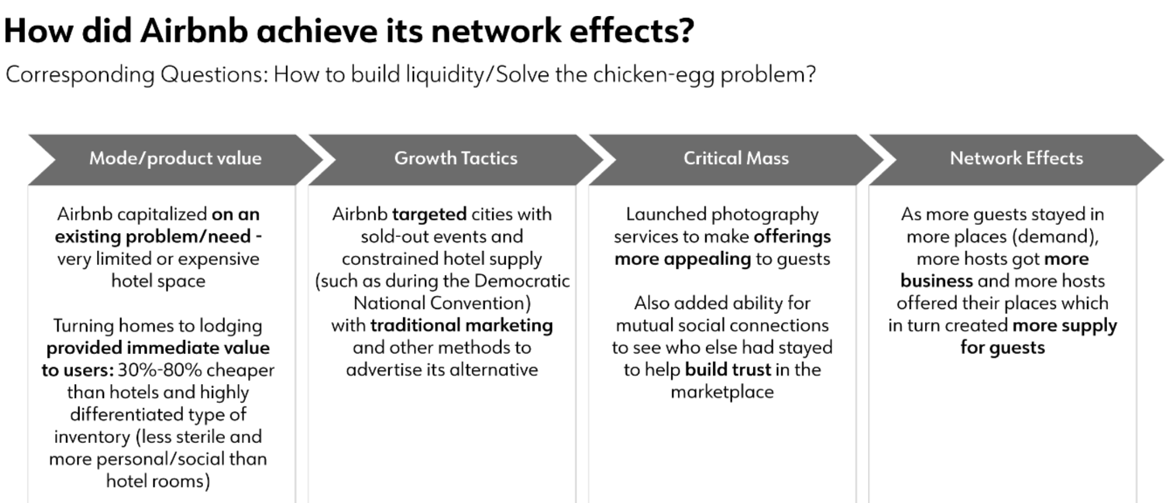


As with any business model, studying Key Performance Indicators, or KPIs, helps a commerce site operator evaluate marketplace performance by weighing the effectiveness of various functions against the operational and strategic goals. The insights gathered from KPIs help inform action steps to compete, improve, grow, remain strong, etc. The key is to examine performance through a variety of lenses. Beyond simple growth of the consumer base or number of transactions, all angles of the platform, sellers, catalogue, logistics, and back office functions must be examined for efficiency and effectiveness. But first, understanding core concepts of the marketplace model will allow the operator to define success in a marketplace environment and then develop a list of KPIs to track the health of the business.

21.1 Core Concepts around Marketplace Business Model



The Virtuous Cycle – As Jeff Bezos dubbed it, the Virtuous Cycle demonstrates how fantastic customer experience is at the forefront of success in a marketplace business. Great customer experience attracts more customers, attracts more third-party sellers, enhances product selection, lowers the cost of products and innovation, attracts more customers. Therefore, examining and acting on KPIs should aim to magnify the flywheel repeatedly and create a network effect.



Critical Mass – This scientific concept states that for transactions to occur on a marketplace, there must be a minimum number of sellers, products, and buyers. Theoretically, only one of each could result in a transaction, but the odds of the right single buyer wanting to purchase the right single product from the right single seller are extraordinary. Therefore, there must be a good volume of supply and demand to make a marketplace function, much less grow.

Building Trust – While consumers have mostly grown accustomed to the idea of entering their credit card information on a website, a marketplace of any type still must exert a good amount of effort to foster trust between all the stakeholders. An excellent example is Airbnb, which had to convince both renters and property owners that renting a private home instead of a hotel room was a good and safe idea. Early adopters may be drawn to the novelty factor of a new marketplace but gaining the trust of a larger market requires significant reputation management.

21.2 Liquidity Metrics

Liquidity, in terms of a marketplace, applies to both providers and customers. In its most basic form, liquidity is the reasonable expectation of being able to sell what you listed or find what you are looking for. In KPI terms, *provider liquidity* is the percentage of listings that lead to transactions within a certain time period, whereas *customer liquidity* means the probability of a visit leading to a transaction on the marketplace website. Insights gained by the study of liquidity metrics include the ease of the customer journey and path to purchase, as well as whether marketing dollars are being spent on the right audiences.

Basic liquidity metrics:

- *Search to fill* – Percentage of searches or requests that lead to a transaction
- *Supplier utilization* – Percentage of suppliers experiencing heavy customer traffic
- *Time to Fill* – Speed at which orders are filled or services are performed

Advanced liquidity metrics:

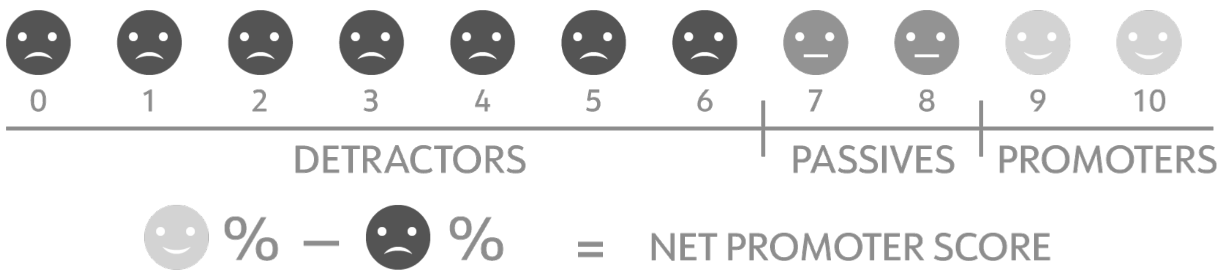
- *Buyer-to-Seller Ratio* - Number of buyers one seller can serve. There is no single right ratio for all marketplaces; rather, this ratio can vary greatly by industry and marketplace type.
- *Repeat Purchase Ratio* – Percentage of transactions by customers who have previously made a purchase on the platform. A higher repeat purchase ratio translates to a higher customer life-time value and lower customer acquisition costs.
- *Average Order Value (AOV)* – This self-descriptive metric can inform promotional activities like recommending complimentary purchases.

21.3 Trust Metrics

Like liquidity metrics, trust metrics can also be observed from the customer perspective and the seller perspective. The importance of these KPIs cannot be overstated as they provide the most direct picture of whether customers will continue to shop on the marketplace.

Customer Retention Rate shows the percentage of customers who continue doing business with the marketplace over a given time period. By contrast, **Churn Rate** shows the percentage of customers a marketplace has lost over time. This metric is also a good indicator of the effectiveness of customer loyalty and customer service programs.

Net Promoter Score is a simple format, devised by Fred Reichheld of Bain & Company and Satmetrix Systems in 2003, which asks the customer "How likely are you to recommend our marketplace to a friend or colleague?" By choosing a number or smiley face, the customer tells a story about their overall satisfaction.



Customer Resolution Time is how long it takes to resolve a consumer's problem. Ideally most marketplace businesses aim for first contact resolution (FCR), that is, resolving the issue in a single interaction thereby eliminating the need for them to reach out a second time. While it is important to resolve matters quickly, of equal importance is resolving issues correctly and to the customer's satisfaction.

21.4 Business Scale Metrics

Business metrics or scale metrics answer questions related to big picture costs, revenue, and profitability.

Gross Merchandise Value (GMV) is the total value of products or services transacted on the marketplace platform, exclusive of returns and cancellations, during a specific time period. This depicts the total scale and overall health of your business.

Net Revenue is calculated by multiplying GMV by the per transaction commission rate.

Customer Acquisition Cost (CAC) is the total hard and soft costs that go into acquiring new customers (usually mostly sales and marketing costs) divided by the number of new customers.

Best practice is to start off with a target CAC target that nets a positive return on the investment. Ideally this cost would be zero based on the organic network and referral effect of the marketplace, however, that is not the case in the real world. Even if you do not spend much on marketing, you are likely to spend money on sales, support, community management factors that influence things like referrals. Some of the levers to bring down the customer acquisition costs include increasing conversion rates, increasing customer retention rates, and use of marketing automation and other platforms to keep customers and potential customers engaged. A comprehensive referral program is another way to lower a CAC, as referral from existing customers tend to carry the lowest cost of all.

Customer Life-time Value (CLV) is the total amount of revenue expected from each customer throughout the duration of their relationship with the marketplace. To be profitable, CLV must be higher than CAC. Overall CLV in an estimate calculated through many variables, but the result still provides a valuable snapshot of the viability of a marketplace. The formulas below detail the calculation of CLV.

Average Purchase Frequency Rate (AFPR) = Number of Purchases/ Number of Customers

Customer Value = AOV x AFPR

Customer Lifetime Value = Customer Value x Average Customer Lifespan

21.5 Profitability Metrics

Profitability metrics incorporate data about both sellers and buyers to give an overall picture of whether the marketplace is making a profit.

Concentration Analysis is used to highlight relationships between users and sellers. For example, the bulk of sales may be concentrated with certain top sellers or customers within a certain geographical region may be purchasing a concentrated group of products. Concentration analysis reveals areas of significant growth, business aspects which may need greater effort, and where time and money are being wisely or poorly invested.

Seller Acquisition Cost is calculated similarly to CAC, but its application is quite different. A basic example makes this easier to understand. If the marketplace operator spends $5,000 on seller acquisition efforts and gains 5 new sellers, the operator has spent $1000 per seller. If each seller completes 1,000 transactions, the operator shows a seller acquisition cost of $1 per transaction.

That SAC is then applied to the margin. If each transaction pays the operator a $10 gross commission less the $1 SAC, then the operator's net margin is $9 per transaction.

Seller Lifetime Value estimates how much revenue a particular seller will generate over its lifetime. You can calculate this metric using the average order value, transaction frequency, and the average lifetime per seller.

Monthly Recurring Revenue is a predictable revenue that a marketplace can count on receiving each month. Often applicable to subscription business, the simple calculation multiplies average revenue per customers by the total number of customers using the subscription service.

21.6 User Behavior Metrics

Applicable to marketplaces, eCommerce, and websites alike, behavior metrics help the website owner understand what visitors do while on the site and whether their experience was positive or negative.

Monthly Active Users (MAU) tracks the number of unique users to visit a site and should depict growth.

Bounce Rate shows the percentage of users who visit the site and leave right away with the goal of keeping this rate very low. This metric can be tracked per web page to discern where the customer journey breaks down or leads to purchase. As a benchmark, Amazon and eBay have bounce rates of around 20% to 25%.

Time spent on site, as it sounds, refers to how much time users are spending on the site, but it is also important to consider how exactly are they engaging with it. Track categories, products, and purchase patterns to determine if users are spending a long time searching for products they cannot find, enjoying browsing the site, or bouncing immediately in frustration.

Conversion Rate is a critical KPI that deserves significant scrutiny as it tracks how many visitors complete a transaction. In combination with bounce rates, click through rates, and time spent on site, the conversion rate shows the operator where the bottlenecks are, whether that is content that does not engage, a cumbersome checkout process, or a shipping policy that is not clear. This KPI should be continuously studied for constant optimization.

Below are some common insights gleaned from KPIs and how to respond.

Problem	Possible Cause/ Action
Low number of visitors	Increase acquisition budget
High bounce rate	Redefine target audience Improve landing page design Refine core value proposition
Listings are visited but no transactions	Customer liquidity issue, get more relevant providers or more relevant customers
Right products but lack of buyers	Problem with product discovery. Adjust UI, category page layout etc.
Many listings visited but few purchases	Increase quality of products Increase special offers
Cart abandonment	Examine purchase process

Key Takeaways – Key Performance Indicators

- When looking at marketplace KPI's, it is important to understand the fundamental concepts of the virtuous cycle, liquidity, and building trust.

- Liquidity KPIs relate whether the platform makes transactions easy. Provider liquidity is the percentage of listings that lead to transactions within a certain time period, whereas customer liquidity means the probability of a visit leading to a transaction on the marketplace website.

- Some of the key metrics that fall under trust metrics are Net Promoter Score and Customer Retention Rate.

- GMV is total sales value of the products or services sold through a marketplace over a specific time period. This metric should be examined in concert with other metrics like Net Revenue, and Customer Acquisition Cost.

- Profitability KPIs for sellers include Concentration Analysis, Seller Acquisition Cost, and Seller Lifetime Value.