Question 1.   
  
**Churn & Churn Rate:**

**Churn Rate = (Customers end of month – Customers beginning of month) / Customers beginning of month x 100 (expressed in percentage)**

SaaS churn is the percentage rate at which SaaS customers cancel their recurring revenue subscriptions.

Churn rate is the metrics which measures how many subscribers leave the service provider in favor of competitors. Companies are trying hard to reduce their churn rates, by implementing customer lifetime value (**CLV**) calculations to customize offerings for each customer. The advent of data analytics has enabled them to build predictive models, which helps them in identifying customers who may churn in the near future so that corrective measures can be taken in time.  
  
**MRR** ( Monthly Recurring Revenue )

“MRR” is all of your recurring revenue normalized into a monthly amount.

MRR is one of the most reliable metrics for tracking business growth. It’s the purest measurement of revenue in the world of SaaS and reveals whether your momentum is picking up or slowing down.

MRR is a key financial metric for any sales projections. Since the revenue is recurring, MRR is a valuable piece of data for SaaS business’ that need to make predictions about their long- and short-term growth.

As long as you’re calculating it correctly, knowing your MRR allows you to budget more accurately for sales and marketing. Plus, if your growth starts to slow down for any reason, MRR can help you identify the trend before it becomes a bigger problem.

A better option would be to multiply the number of customers you have by the average of their monthly fees (also known as average monthly recurring revenue per user, or ARPU). In this case, if you have ten customers paying an average of $80/month, you would have an MRR of $800. The more customers you acquire, the more sense it makes to calculate MRR using ARPU.  
  
**ARPU** ( Average Monthly revenue per user/customer )

**ARPU = Total Revenue / No. of subscribers**

As simple as it gets, it is a measure of how much revenue telecom companies generate from each user. It’s a measure to illustrate the company’s operational performance. This metric is important for telecom companies because they incur a large number of fixed costs, and they need to ascertain whether they are generating revenue which justifies their spending. It also paints a picture for the investors on marginal profits and costs of the company, revealing how they are utilizing the resources. It also acts as a[**yardstick to measure**](https://www.quantzig.com/services/big-data-analytics) the revenue generated from high spending customers and customers who are not profitable. Telecom service providers have started offering bundled services in order to increase the ARPU metrics. ARPU can be further broken down into revenues from voice and data or prepaid and postpaid. Some companies even consider average revenue per minute (**ARPM**) as a metrics to measure their per unit cost versus

ARPU is an important indicator for margin growth. It indicates if you are going to hit your revenue targets. Many businesses find it’s more profitable to raise ARPU (through upgrades or cross-selling) than to increase their customer base because of the high [cost of acquiring a new customer](https://www.chargebee.com/resources/glossaries/saas-metrics/customer-acquisition-cost/#what-is-cac)

This metric is important in the telecommunications industry, as it illustrates the company's operational performance. The ability to maximize profits and minimize costs associated with servicing each end user is key to these companies. Because telecommunications companies are service providers instead of manufacturers of a product, investors want to measure marginal profit and cost on a unit level, revealing how well the company utilizes its resources. The higher the average return, the better. Generally, telecommunications companies that offer bundling services enjoy a higher ARPU.

* Delivering daily ARPU and average Spend Per User (ASPU) trends.
* Providing a consolidated view of customers’ key indicators and drivers.
* Tracking monthly targets on a daily basis.
* Supporting critical subscriber profitability monitoring per usage.
* Enabling service innovation by providing executive decision support metrics that connect to operation intelligence metrics.

**Subscriber Growth:**

A steady subscriber growth rate indicates a competitive telecommunications company that is keeping up with technology trends, thereby keeping customers happy and attracting new customers.

* **Proactive monitoring** by generating data pertaining to the health of the network which helps companies undertake a root-cause analysis of outages and proactively prevent future ones.
* **Capacity planning** by ensuring steady scaling of network capacity relative to expected market growth. This is done in order to prevent large-scale unutilised capacity that is not immediately monetizable.
* **Subscriber profiling** by scouring data about subscribers based on their usage of your services. This includes but is not limited to call patterns, demographics such as age and gender, and call data record based information, giving you an advantage in segment targeted marketing.
* **Churn tracking** by identifying subscriber decline and its drivers per segment, and per geographic location. Competition causes increased subscriber churn rates since they have multiple options of telecom providers to select from, a phenomenon further exacerbated by mobile number portability. Insights into your own organisation’s churn metrics (and also that of your competitors) is important, so as to incentivize likely-to-churn subscribers with effective retention strategies.

**LTV** ( lifetime value )

An estimate of the profit made from the average customer over the period that they remain a customer (from signup to churn).

**LTV**=

Average revenue per customer × Gross margin percentage /

Customer churn rate

* Who are my most valuable customers and my least valuable customers?
* How much money should I spend to acquire new customers and still maintain profitability?
* How much money should I spend to support and retain a customer?

**MOU = Total Usage Time in minutes per month / No. of customers**

Minutes of Usage (MOU) is the total time in minutes, used by a customer on their mobile phone, within a particular timeframe. MOU can be further segmented into postpaid and prepaid MOU or incoming and outgoing MOU. Since most telecom companies offer package voice services to their customer, it is essential to know the MOU for each customer. Also, knowing average MOU for a cohort can help telecom companies to design a promotional campaign that can be profitably catered to a group of people. Additionally, it also helps telecom companies ascertain rates for bundled voice packs.

**Subscriber Growth:**

**Subscriber Acquisition Cost (SAC)**

**= Total Spend / Additional Subscribers**

Subscriber acquisition cost is a measure used within the telecom industry to figure out the total average cost of adding a new subscriber to the list. This metrics takes into consideration all marketing costs including dealers commission, sales cost, marketing and advertising cost, terminal subsidy, and distribution cost that are spent to acquire a new customer. This metric can later be compared to ARPU to figure out if it’s worth spending so much on the acquisition or if they can afford to increase the spending to expand the customer base.

Alternative Thinking:  Declining sales numbers, for instance, point to a problem, but what telco executives really need to know is revenue churn-specifically, the amount of revenue that was lost when customers cancelled contracts. This provides a starting point for managers to take action.

Success story: Japan Telecom. Focused measures helped Japan Telecom Holdings achieve an impressive earning and cash flow turnaround at its fixed-line subsidiary, Japan Telecom. When Bill Morrow stepped in as president of the company in December 2001, the company was heading for its worst reported financial performance, but there were few alarm bells.

Morrow recently commented, "Early warning indicators (EWIs) and key performance indicators (KPIs) were at the top of my list as we began building the turnaround plan." Japan Telecom structured many metrics to look forward on a run-rate basis and monitored them against their targets.

<https://telecoms.adaptit.tech/blog/how-to-increase-your-telecoms-arpu-with-our-end-to-end-bi/>

[https://www.quantzig.com/blog/four-metrics-telecom-companies#](https://www.quantzig.com/blog/four-metrics-telecom-companies)

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