**Product Team Case Study: Operations #3**

Hi from Clipboard! Thanks for your interest in joining our team; we’re excited to launch our New Graduate Product Leadership Program. Clipboard’s Product Team conquers interesting challenges every day. The below case study was selected to give you a feel for the degree of difficulty – and fun– of the types of projects the team tackles.

Planterbox Inc, a plant care software business, just acquired a regional plant care operator named SaaSafras based in the Southeastern US.

SaaSafras’ business has been stable with some organic growth and some natural churn. Planterbox has identified you as a rising star within the org and you’ve been hand picked to run the newly acquired business after the previous CEO of SaaSafras retired and sold their business. You’re excited for the opportunity and your first project is to figure out how you can grow SaaSafras’ revenue (Planterbox decided they loved the name too much, even though they acquired the company they’ll keep the SaaSafras name).

As part of the acquisition, you’ve inherited 20 great people who can do it all between sales, account management and support. Unfortunately, doing it all has come at a cost and productivity has been lower than if they had specialized in any of the individual roles (and they are begging for specialization as well). Going forward each person will only perform one core role at a time. While each person will only perform one role at a time they can switch to another role at the start of any month - one person could cycle through every job without a loss in productivity.

**Your goal is to maximize SaaSafras’ cumulative revenue over the next 24 months (the sum of all revenue generated over 24 months).** Your responsibility is to determine where these 20 people will work each month for the next 24 months to maximize the cumulative revenue generated over the entire period.

The three roles are:

1. New Business Acquisition
   1. These people are responsible for selling and getting new customers in the door
2. Account Management
   1. These people help existing customers; they drive revenue growth from the customers they work with and improve retention
3. Support
   1. These people solve customer problems; they improve retention for any active customer

SaaSafras has some key metrics that won’t change with the acquisition. The business currently has 1,000 customers. SaaSafras acquires 25 customers a month organically through great branding and customer referrals. Some customers turn to other, more specialized solutions and monthly churn is 10%. There has been a standalone support org in addition to your swiss army knife team, and support’s CSAT (Customer Satisfaction) has been steady at 70% for several years. SaaSafras doesn’t offer any discounts and every active customer pays a baseline fee of $100 a month for the core product.

***Team specifics are below:***

Each New Business Acquisition team member can acquire 5 new customers a month.

Account Managers increase revenue by 20% month-over-month for accounts they manage up to a cap of 6 months. To be clear, this revenue increase compounds by 20% each month up to the 6th month, at which point it maxes out and remains flat for the remaining duration of time that the customer has an account manager (for example, if a customer has an account manager in month 1 they’ll pay $120, in month 2 they’ll pay $144, etc). If a customer has an account manager and then loses the account manager their metrics (revenue per month) return to the baseline, but there isn’t a negative consequence. Each Account Manager can carry 25 customers.

Each support agent increases CSAT by 1 percentage point. Each point of CSAT leads to a 15% relative decrease in churn, with a compounding effect (the next CSAT point decreases 15% of 85%, etc.).

SaaSafras needs you to make 3 key decisions:

* How many people will work on acquiring new business, account management, and support each month from month 1 to month 24?
* Why are they working there?
  + We care about your understanding of the why behind your decisions just as much as we care about the actual decision, so please explain your reasoning, not just the conclusion (i.e. don’t rely too much on solver / other tools).
* Bonus: If you had a magic wand, what is the one variable you would try to improve going into year 3? How would you approach moving that variable?
  + By “variable” here, we mean one of your team members core metrics (customer acquisition, CSAT, revenue increase, relative churn decrease etc).

**Output for the Case Study**

In line with our actual work, the ideal output from this exercise is a written document outlining your thinking backed by analysis (in this case, math). As mentioned in our blog, we do not think longer cases are “better” and value clarity far more than length. In case it's helpful – we also wanted to share some pre-reading on [customer lifetime value](https://www.cubesoftware.com/blog/customer-lifetime-value).

**The Clipboard Health New Graduate Product Leadership Interview Process**

First of all, thank you for applying to Clipboard Health. We’re very excited at the prospect of you joining our team and want to provide visibility into our process. To give you a view into how we think about recruiting we [produced this post](https://creatingvalue.substack.com/p/product-team-recruiting). We also recommend that you poke around the blog here to get an idea of [how the Product Team](https://creatingvalue.substack.com/p/the-product-team) works and our [Team Standards](https://creatingvalue.substack.com/p/high-quality-and-fast).

**Steps:**

1. Case Study 1: SaaSafras Case (above prompt)
   1. Case Study 1: Interview with a member of the Product Team
      1. Please be prepared to discuss the SaaSafras case during this interview
      2. We will always give you the chance to ask questions during this stage as well, and if time allows we may go into your background
2. Case Study 2: Minimum Viable Brief (you’ll receive a new prompt)
   1. Case Study 2 Interview
3. Meet with President / COO (Bo Lu)

We recognize that this is a time intensive process. We have found this is the best way to assess whether there is a mutual fit. If you're looking for room to grow problem-solving skills in a feedback-rich environment where your thinking will be challenged, we think you'll have fun in both our interview process as well as if you join full-time. We do not use the case studies outside of our recruiting process.

As a general rule, we do not give rejection reasons or feedback for case studies that do not progress to the interview stage. We unfortunately have limits to how many candidates we can interview and get to know, and the members of our team who evaluate case study submissions are unable to provide individualized feedback to every case. Of course, we’re continuously evolving our process to improve the candidate experience and welcome your feedback.

We’re excited for you to get started!

ou're right, and I appreciate your patience. Let's correct the calculation for the revenue increase from Account Management for the first 6 months:

1. **Calculate the Monthly Revenue Increase for Each Account:**
   * Baseline Revenue per Month (BRBRBR) = $100
   * Monthly Revenue Increase Rate (RIRRIRRIR) = 20% = 0.20
   * Duration (DDD) = 6 months

New Revenue per Month=BR×(1+RIR)D\text{New Revenue per Month} = BR \times (1 + RIR)^DNew Revenue per Month=BR×(1+RIR)D New Revenue per Month=100×(1+0.20)6\text{New Revenue per Month} = 100 \times (1 + 0.20)^6New Revenue per Month=100×(1+0.20)6 New Revenue per Month=100×(1.20)6\text{New Revenue per Month} = 100 \times (1.20)^6New Revenue per Month=100×(1.20)6 New Revenue per Month=100×3.2071\text{New Revenue per Month} = 100 \times 3.2071New Revenue per Month=100×3.2071 \text{New Revenue per Month} ≈ $320.71

1. **Calculate the Total Revenue Increase for All Accounts Managed by Each Account Manager:**
   * Number of Customers per Account (CCC) = 25
   * Number of Account Managers (NAMNAMNAM) = 5

Total Revenue Increase=(New Revenue per Month−Baseline Revenue per Month)×C×NAM\text{Total Revenue Increase} = (\text{New Revenue per Month} - \text{Baseline Revenue per Month}) \times C \times NAMTotal Revenue Increase=(New Revenue per Month−Baseline Revenue per Month)×C×NAM Total Revenue Increase=(320.71−100)×25×5\text{Total Revenue Increase} = (320.71 - 100) \times 25 \times 5Total Revenue Increase=(320.71−100)×25×5 Total Revenue Increase=220.71×25×5\text{Total Revenue Increase} = 220.71 \times 25 \times 5Total Revenue Increase=220.71×25×5 \text{Total Revenue Increase} ≈ $27,588.75