



Integrations Model Exercise

HubSpot is growing rapidly. Over the past few years, we've launched many products to solve for a company's marketing, sales, and service needs. These products have helped our customers grow their businesses. In addition to HubSpot products, another way that our customers get value is through integrations. Integrations allow companies to connect different, often disparate, systems with HubSpot, so that the data contained in each system becomes part of a larger, more comprehensive ecosystem. Essentially, integrations allow HubSpot customers to connect their HubSpot account with their larger tech stack, so that they're tech works more seamlessly together!

HubSpot aims to become the platform for companies to effectively run and grow their businesses. Integrations are a core component to help HubSpot become a remarkable platform that customers love.

Exercise Goals and Data

- The overarching goal of this exercise is to use the datasets below to answer the question: **do integrations improve customer outcomes with HubSpot, and if so, what insights and recommendations can be made from your analysis?**
- **Deliverable:** presentation to the VP of Customer Success and the Product Manager of the Integration Marketplace that clearly illustrates your findings and recommendations through data.
- For this analysis, we've provided you with three datasets, but no in depth data dictionary.

Datasets:

- HubSpot Customer Base Metadata
 - This tab contains customer level information, such as segment, HubSpot subscription tier, and number of integrations in a given month.
- HubSpot Customer Base Value
 - This tab contains customer level information, such as customer value at the beginning and end of a month as well as cancellation dollars.
- Integrations Ecosystem:
 - This tab contains information on HubSpot's integration partners such as integration ID, monthly value from customers who have that integration installed, and cancellation dollar value of customers who had that specific integration installed at the time of cancellation. For instance, "Integration Total MRR" is the total subscription MRR to HubSpot from portals that have that integration



installed (**not** the dollars spent by customers/free users to purchase that integration).

- Note: this dataset also contains information on free portals that have those integrations installed (not just customers/"paid portals").

Use these datasets to understand the current state of integrations at HubSpot and examine if integrations affect the performance of our customers.

Context and Questions

As a Software as a Service (SaaS) company, we are focused on retaining and growing our customer base. One metric we use to think about the performance of our customers is customer cancellation rate-- that is: the total value of lost customers (Customer Cancellation Dollars) divided by the total value of the customer base (Customer Value Beginning of Month). This rate can be calculated for a given month across all customers or for individual customer segments, or it can be calculated across months by summing the cancellation dollars across the time period and summing the beginning of month customer base across the time period.

Customer dollar cancellation rate is the most important metric for this analysis, but you can also consider other metrics to measure the performance of customers - customer dollar growth or upgrade rate is another way to think about customer success: $(\text{Customer Value End of Month} - \text{Customer Value Beginning of Month}) / \text{Customer Value Beginning of Month}$.

Here are some questions to get you started (not exhaustive)...

- What do integrations in our customer base look like today?
- How have integrations trended over time?
- How do integrations influence customer performance, if at all? Does the number of integrations matter? Do your observations hold across certain customer groups?
- Do specific integrations perform better than others?

Recap of the goals:

- Now that you've got an overview of the current state of integrations and how they impact customer performance, do integrations matter for our customers?
- What did you observe in the data that informed your answer? How can we best visualize your insights/findings?
- What recommendations can be made from your analysis?

Remember, we're presenting this data to the VP of Customer Success and the Product Manager of the Integration Marketplace - what is the key story that we're telling them? There is



no right or wrong answer - have fun with this problem and get creative! We are excited to see what you come up with!

Timeline to Complete

- You have one week to complete the assignment. If you feel you have accomplished what you wanted in a couple hours and are confident in your work, great! If you want to take a whole weekend and have some fun, go for it!
- Please let us know if you have concerns, questions, or conflicts which might make this timeline difficult.
- If you have questions on data fields or definitions - or any questions at all about the case - please reach out to misullivan@hubspot.com.

Other Notes

- Please provide and be prepared to talk through a presentation of your analysis (PowerPoint, Google Slides, or other presentation tool)
- You may use whatever tools you'd like to analyze this data - Excel, Python, R, SQL, etc. Please send any data analysis files and scripts along with your final presentation
- This is an exercise with some data adjustments to avoid sharing sensitive company information. Customer ID and Customer Name may differ between the Excel datasets.
- Don't worry if you spot something out of place, it will not impact this analysis.

