

Project Proposal

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Client's main goal: How efficient is our customer support?

Sub-goals related to the client's primary goal:

1. I consider customer satisfaction/dissatisfaction as criteria for customer support efficiency. My first sub-goal would be exploring the efficiency of the whole customer support in terms of customer satisfaction and investigating whether there is any relation between customer satisfaction/dissatisfaction and the fact that the customer's problem is resolved or not.
2. My second sub-goal would be exploring the factors that have impacted customer satisfaction/dissatisfaction:
 - 2.1 I will examine whether there is any relation between response time(the difference between action-time and creation-time)and customer satisfaction/dissatisfaction or not. If the answer is yes, I explore further to see which one has had more impact on customer satisfaction/dissatisfaction? The difference between view date and creation date, or the difference between action date and view date.
 - 2.2 Is there any relation between ticket volume and customer satisfaction/dissatisfaction? In other words, whether the more tickets created on a day have led to lower efficiency?

The visualizations I plan to make:

Bar Plot

The purpose of this visualization is to measure the company's customer overall satisfaction. It gives a general insight into the efficiency of the whole customer support.

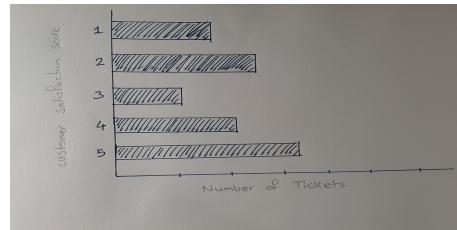


Figure 1

Sunburst Chart

The purpose of this visualization is to show the proportion of the tickets whose related problem was resolved and not resolved and then, for each of these two categories showing the proportion of customer ratings. In this way, we can get an insight into whether there is any relation between customer satisfaction/dissatisfaction and their problem was resolved/not resolved.



Figure 2

Box Plot

This visualization aims to compare the distribution of response time of the tickets based on their ratings. Based on the results of the sunburst chart, I may add another box plot similar to this one(with the same angle), however, with a different frame(the data I include). This plot helps us to see whether the response time has impacted customer satisfaction/dissatisfaction or not. If it does, I draw two other plots similar to this plot to explore whether the difference between view date and creation date has more impact or difference between action date and view date.

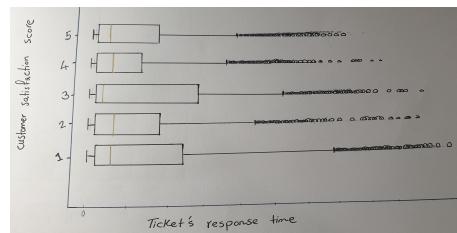


Figure 3

Scatter Plot

The purpose of this plot is to explore whether there is a correlation between the number of tickets on each day and their average score. In other words, the increased ticket volume increases customer satisfaction, decreases customer satisfaction, or there is no relation.

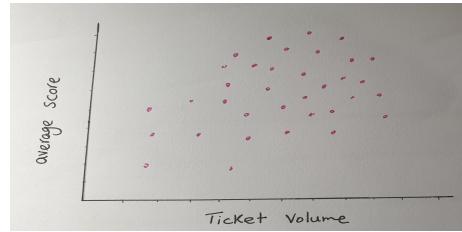


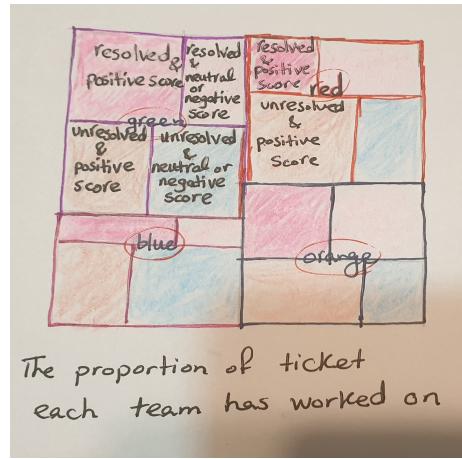
Figure 4

Interactive Treemap Chart

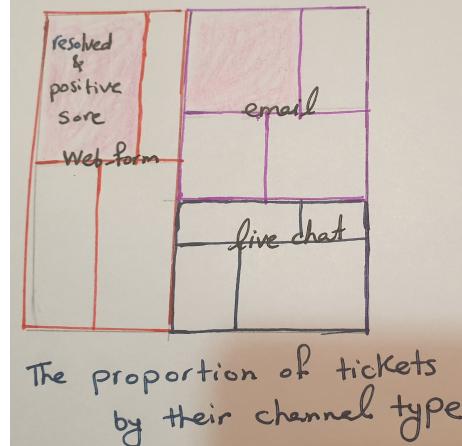
In the final stage, I will provide two interactive treemap charts to visualize:

1. the number of tickets each customer support team has worked on, and then four subcategories in each category: the number of resolved tickets with a positive score(4, and 5 ratings)/ the number of resolved tickets with a neutral or negative score(1,2, and 3 ratings)/ the number of unresolved tickets with positive score/ the number of unresolved tickets with a neutral and negative score.
2. the number of tickets received in each channel type(web-form, email, live chat), the subcategories are the same as mentioned

I will leave this exploratory visualization, and via mouse-wheeling, give the client additional information about each category and subcategory, including the exact number of tickets and the average response time



The proportion of ticket each team has worked on



The proportion of tickets by their channel type

Figure 5