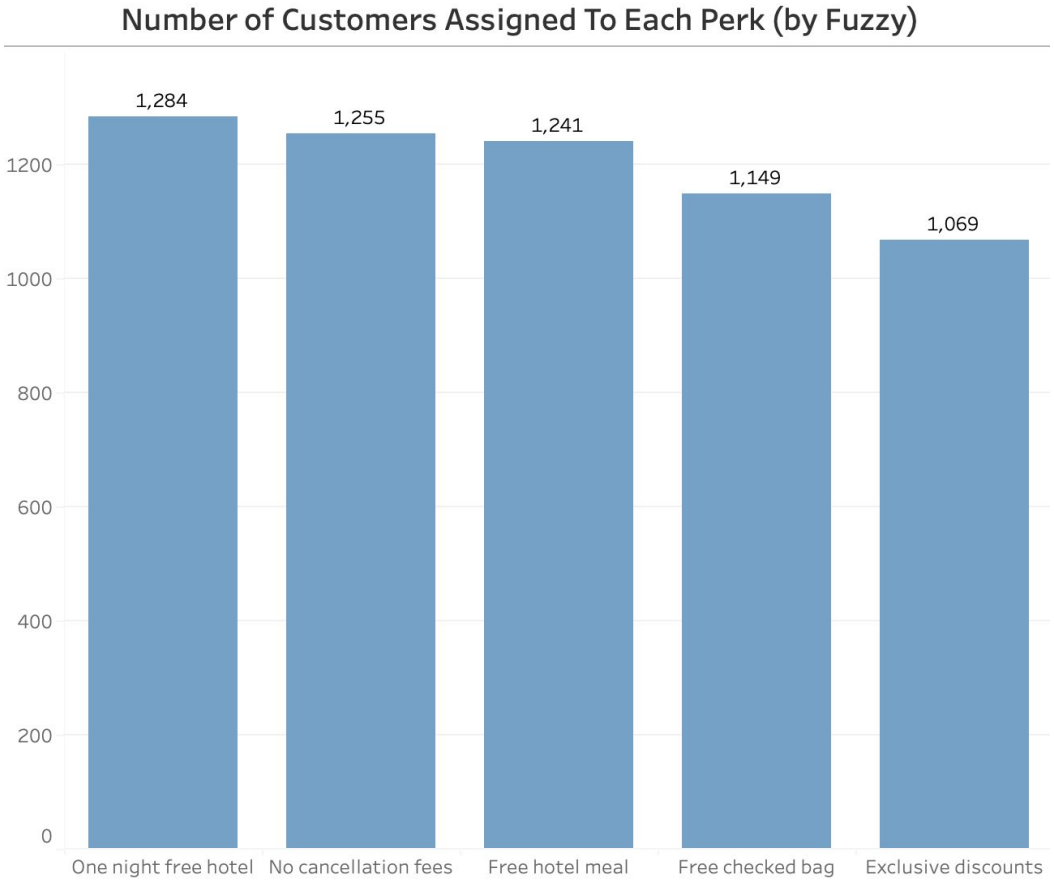
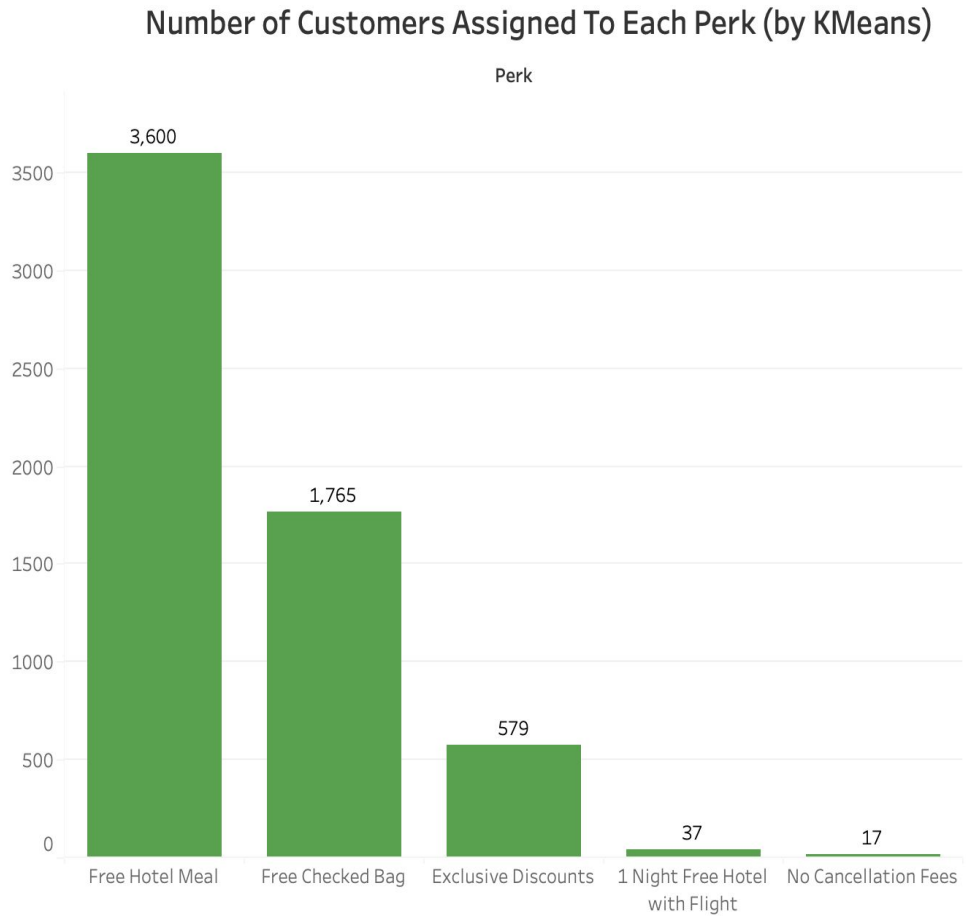
Customers Segmentation Analysis



- The Fuzzy strategy means each customer can have more than one perk
- Through ranking, all customers in the cohort will have a rank corresponding to the perk they most belong to

Customers Segmentation Analysis

- The K-Means method rooted in a distance-based algorithm separates all customers of the cohort into one of the 5 perk segments
- This clustering method produces a huge gap between the perk (Free Hotel Meal) with the largest numbers of customers assigned versus the one (No Cancellation Fee) with the lowest count of customers.



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Recommendation

- K-Means method mainly relies on quantization of distance between data points and their respective cluster centers. In other words, this bottom-up approach does not need extensive knowledge of the data to design and produce results. But it requires us to conduct analyses to uncover the meanings of segments, and understanding of the algorithm to explain the large gaps between segments.
- In the case of Fuzzy segmentation, we define metrics manually by using the knowledge we have about the data. We can deduce and interpret the results based on our understanding of the data and the method.
- For the ease of the approach and straightforward interpretation of the results, we recommend to adopt the Fuzzy design to assign perks to our customers.