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Project - Bonus

Professor Milan Miric
DSO 574 - Using Big Data: Opportunities & Challenges

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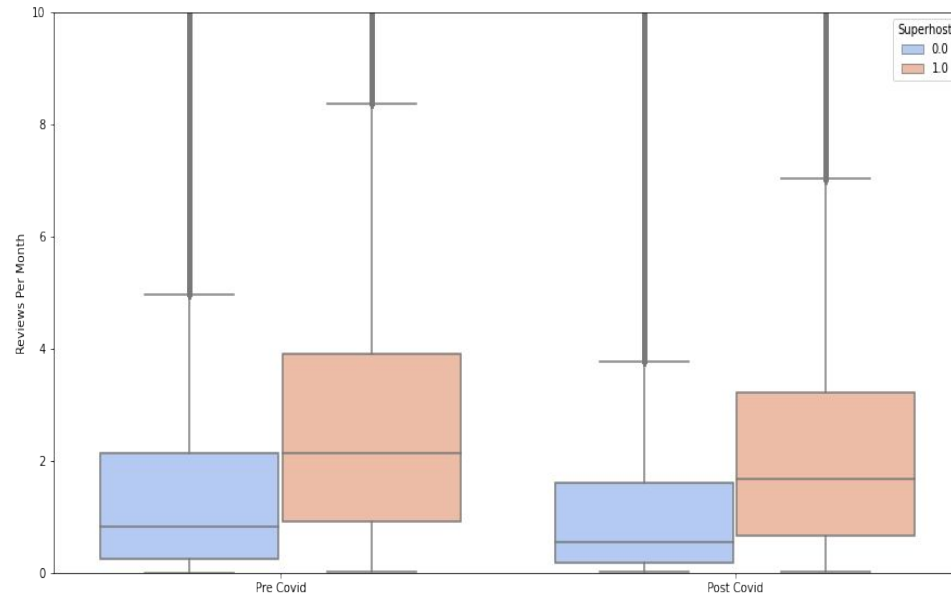
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What is Success? High Number of Bookings

Some hosts may consider having a high number of bookings as being successful.

**Using Number of Monthly Reviews as a proxy for bookings*

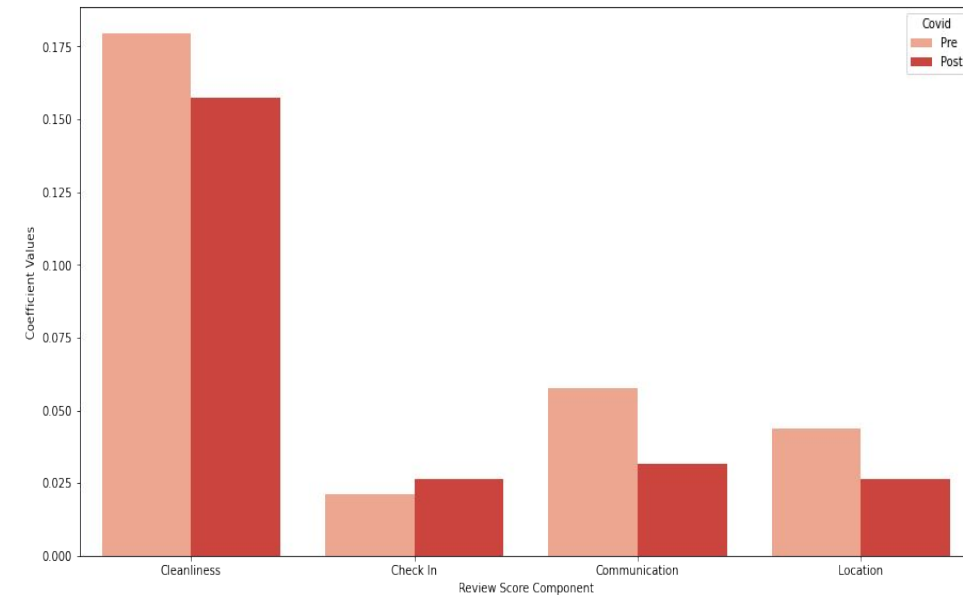
Box Plot Comparison Reviews per Month pre and post Covid



Distribution Comparison

- Superhosts averaged 81% more monthly reviews than regular hosts pre Covid
- This figure has jumped to 93% post Covid, indicating users prefer to book with more professional hosts

Pre and Post Covid Linear Regressions Reviews per Month as Dependent Variable



Linear Regression Coefficient Values

- Check in review was the only component that faced an increase in coefficient values
- This could be due to the increased desire of users to avoid any unnecessary person to person contact

Key Takeaway: In a post Covid world, it appears that users' already existing **preference for Superhosts has strengthened**; this could be due to their expectations that a Superhost will provide superior services such as a **non-contact check in procedure**.

What is Success? High Number of Bookings

Some hosts may consider having a high number of bookings as being successful.

**Using Number of Monthly Reviews as a proxy for bookings*

Factors Most Influencing Number of Reviews			
*All significant at .01 level.			
Rank	Variable	Coefficient	Interpretation
1	host_is_superhost	40.87	If the host is a superhost, there will be 40.87 more reviews.
2	host_has_profile_pic	22.74	If the host has a profile picture, there will be 22.74 more reviews.
3	host_identity_verified	11.96	If the host's identity is verified, there will be 11.96 more reviews.
4	review_scores_checkin	9.14	For every one unit increase in the check in reviews score, there will be 9.13 more reviews.
5	review_scores_location	8.55	For every one unit increase in the location reviews score, there will be 8.54 more reviews.
6	review_scores_communication	8.47	For every one unit increase in the communication reviews score, there will be 8.47 more reviews.
7	entire_house	8.16	If the listing is for an entire house, there will be 8.16 more reviews than if it was not.
8	review_scores_cleanliness	7.10	For every one unit increase in the cleanliness reviews score, there will be 7.10 more reviews.

Key Takeaway: We consistently see the components of the **review score** having a large influence on the number of bookings a listing will have. Other highly contributing factors appear to be related to the **host** and the **listing** itself. The host being a superhost, having a profile picture, and having their identity verified are all things that may give a user more comfort when booking a listing, thus having these features will lead to more users choosing that host's listing compared to others. The listings for an entire house were also booked more frequently, something that seems intuitive in a post Covid world; users have less desire to share the space they are renting.

What is Success? High Review Rating Score

Some hosts may consider having extremely satisfied guests as being successful.

Factors Most Influencing Review Rating Score			
*All significant at .01 level.			
Rank	Variable	Coefficient	Interpretation
1	review_scores_communication	8.23	For each one unit increase in review_scores_communication, the overall rating score will increase 8.23 points.
2	review_scores_checkin	8.08	For each one unit increase in review_scores_checkin, the overall rating score will increase 8.08 points.
3	review_scores_value	7.69	For each one unit increase in review_scores_value, the overall rating score will increase 7.69 points.
4	review_scores_location	7.56	For each one unit increase in review_scores_location, the overall rating score will increase 7.56 points.
5	review_scores_cleanliness	6.84	For each one unit increase in review_scores_cleanliness, the overall rating score will increase 6.84 points.
6	host_is_a_superhost	5.03	If the host_is_a_superhost, the overall rating score will increase 5.03 points.
7	host_has_profile_pic	3.66	If the host_has_profile_pic, the overall rating score will increase 3.66 points.

Key Takeaway: It is no surprise that the individual components of the overall review score are what influences the score the most, what may come as a surprise in a post Covid world is that **cleanliness ranks at the bottom** of these components; although, this may be due to users having higher cleaning standards in a post Covid world. Seeing **communication and check in as the most important factors** may indicate that users highly value a host that has check in procedures in place and communicates well enough to allow the user to avoid coming into contact with the host.