**HOTEL ANALYSIS INSIGHTS**

Most hotels, regardless of whether they are rated 3.3 or 4.7, tend to offer similar discounts. The slight positive correlation (0.2262) indicates a small trend where hotels with better ratings offer slightly higher discounts. Still, it's not a strong enough pattern to say that discounts are a major factor in higher ratings.

There are observable trends in hotel ratings based on the month of stay. January, March, May, and October tend to have higher ratings, while February and April tend to have lower ratings. The data indicates seasonal variability, with certain months consistently showing higher or lower ratings.

The number of rooms booked impacts hotel ratings. Double Rooms, Single Rooms, and Three Rooms are associated with higher ratings, suggesting higher guest satisfaction. In contrast, the Three Rooms and Hall option is associated with much lower ratings, indicating potential issues or lower satisfaction levels with this room type.

Hotels with lower ratings (around 3.7 to 3.9) tend to have higher profit margins. Hotels with higher ratings (around 4.4 to 4.7) tend to have lower profit margins. The negative correlation coefficient (-0.6600) shows that there is a trend where higher-rated hotels have lower profit margins. This could imply that higher-rated hotels may be investing more in quality improvements, amenities, or services, which might reduce their profit margins.

Q3B **There is a trend indicating that higher-rated hotels tend to have lower profit margins.** This trend suggests that hotels with higher ratings may be investing more in quality improvements and services to achieve those higher ratings, which in turn reduces their profit margins. Conversely, lower-rated hotels seem to maintain higher profit margins, possibly because they invest less in such improvements or services.

Q4, The **avg. booking Price for Hotels with Ratings Above 4.5** is 299.06. **The avg. booking Price for Hotels with Ratings Below 4.5** is 148.75. Hotels with ratings above 4.5 have a significantly higher average booking price (299.06) than those with ratings below 4.5 (148.75). The difference is 150.31, indicating that higher-rated hotels have higher booking prices.

Q5, **Hotels with Ratings 4.5 and 4.6** have the highest count of bookings (9,681 and 10,725). This means they are maintaining high standards in service, amenities, or a good location, leading to sustained positive customer feedback but **Hotels with Ratings 3.3, 3.7, and 3.9** have relatively fewer bookings (1,296, 1,347, and 1,355, respectively), indicating potential ongoing issues such as poor services, inadequate facilities, or unfavorable locations.

Q5B, The average number of days stayed in higher-rated hotels (above 4.5) is slightly less (3.22 days) compared to those stayed in lower-rated hotels (3.24 days). This indicates that guests do not significantly tend to stay longer in higher-rated hotels compared to lower-rated hotels, as the difference is minimal.

Q6, Guests using Internet Banking tend to rate their hotel stays higher, possibly due to the convenience and security perceived with this method. COD ratings are slightly lower, which could be due to a variety of factors including the type of guests preferring this payment method or their expectations

**Recommendations**

Create attractive packages for shorter stays and then provide personalized experiences for guests staying longer in high-rated hotels.

Implement consistent service standards in highly-rated hotels and Identify and address common issues in lower-rated hotels.

Focus marketing on Double and Single Rooms and improve room features for lower-rated types.

Target marketing efforts during high-rating months like January and May and offer promotions and improve experiences in months like February and April.

Ensure that discounts do not compromise service quality to maintain high ratings.