Hotel Bookings

Problem & background

This project contains the real-world data record of hotel bookings of a city and a resort hotel containing details like bookings, cancellations, guest details, etc. from 2015 to 2017. The main aim of the project is to understand and visualize datasets from the hotel and customer point of view i.e.

- reasons for booking cancellations across various parameters
- best time to book a hotel
- peak season

Solution & Outcomes

- It has been discovered that there is a relationship between lead time and cancellation in which cancellation is currently lower for hotel reservations at **249 days**, but increases as soon as it **exceeds 249 days.**

- Due to the proven correlation between deposit and cancellation, in the case of **No Deposit of Money**, **62.7%** of people do not cancel hotel reservations, as opposed to **24.87%** of persons who do. Bookings that are **non-refundable** have been canceled by **12.14%** compared to **0.08%** who have not. **Refundable** transactions have **0.11%** who do not cancel and **0.03%** who cancel hotel reservations.

- There is a correlation between market segment and cancellation: In the case of **aviation, 0.15%** of people do not cancel hotel reservations, compared to **0.04%** of people. In the case of **complimentary** bookings, **0.54%** of consumers have not cancelled their reservations compared to **0.08%** of persons who did. In the case of **corporate** reservations, **3.60%** of people have not cancelled their reservations, while **0.83%** have done so. In the case of direct bookings, **8.94%** of customers have not cancelled their reservations, while **1.62%** have done so. In the case of group reservations, **6.46%** of guests have not cancelled while **10.13%** have done so. When it comes to **offline TA/TO** bookings, **13.32%** of people have not cancelled their reservations, while **6.96%** have. In the case of **online TA/TO** reservations, **17.37%** of people have cancelled their reservations compared to **29.93%** who have not.

- The number of **cancellation days decreases** as the number of **previous cancellation** days **rises.**

➢ Revenue for each year is displayed in column charts.

Methodology & Project scope

➢ This project's main goal is to make the calculation and understanding of the results simpler. Data from different tables must be combined into one Excel spreadsheet and formatted appropriately.

➢ The dataset will next be analysed for flow patterns, correlations between variables, and further insights. In order to simplify additional data analysis, we will create new Excel worksheets within the same file utilising pivot tables and a variety of Excel functions.

➢ We will use pivot charts to produce an easily understood visual representation of the advised analysis. These graphs will provide information about Hotels Bookings.

➢ In the end, we'll produce a dashboard that provides all the suggested analysis in a simple to understand manner. The dashboard will give users a thorough overview of the data and allow them to base their judgements on the analysis's key findings.

Goals & KPIs

❖ What is the relationship between lead time and cancellation?
❖ What is the relationship between deposit type and cancellation?
❖ What is the relationship between market segment and cancellation?
❖ What is the relationship between previous cancellations and cancellations?
❖ How much does the price in hotels vary over the year?

Concepts Used & Formula's

🞣 A pivot table is used to quickly summaries and interact with data.
🞣 A bar graph is used to display findings
🞣 Count, Average, Pivot table, VLOOKUP, Max, Min, filter etc.

Conclusion

Excel was utilised in the study to find patterns and trends in the data, including the comedy genre's highest rating count and differences between Tomato-meter and audience ratings for select films. The data also revealed

the studios with the lowest and greatest ratings, providing studios with a benchmark against which to measure their success and raise their ratings. The analysis helps studios improve their performance and have more success in the film industry by offering insightful information about the elements that lead to high Tomato-meter scores for films with a "R" classification.

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