

DATASET: INTERNATIONAL TOURISM, NUMBER OF ARRIVALS

Contents

Part 1 Problem Statement	2
Part 2 Target Audience: Hotel Business Owner	3
Part 3: Data Science Questions.....	4

Part 1 Problem Statement

Tourism is a crucial source of income for various worldwide economies [1]. In particular, the hospitality industry heavily relies on international tourists, who stay at accommodations upon arrival to the country, spending money on food, room services and even other paid hotel packages such as souvenirs and products [2][3]. Since the Covid-19 pandemic, many hotels have faced significant losses in the number of people staying in accommodation and consequently have experienced tremendous deficits in room revenue generated. For example, since the start of the pandemic in March 2020, the drop in tourist arrivals caused hotels in the US to lose over \$46 billion in income. [4]. This could correlate to the staggering 70% worldwide decline in the number of international arrivals between the years 2019 and the end of 2020 [5].

Accordingly, international hotel chain owners are looking for a location to set up new hotels in countries around the world, in order to increase revenue, despite the drops and hardships of the Covid-19 pandemic. There is a vast amount of data available, particularly on hotel arrivals on the world bank data website [6] but the problem lies in the fact that the data is not clear and easy to understand so as to be used to effectively choose country locations for the hotels. Therefore, these hotel chain business owners would be the initial main target audience, with the overarching aim that the app can later be used by any business chain owners looking to set up business locations in the hospitality industry. These include food and beverage, travel and tourism as well as recreational companies.

Timeframe, location and trend: The problem was observed around March 2020, when the Covid-19 pandemic rapidly intensified worldwide. This affects owners of businesses in the hospitality industry, particularly hotel owners, who strongly depend on tourists for income generated. There is no overall trend to this problem since the Covid-19 pandemic was fairly recent. There has been a recent rise since the travelling restrictions worldwide were lifted, which is expected, where in the first 7 months of 2022, the levels of international tourism rose to 57% of the levels pre-pandemic before 2020 [7]. Although this is a somewhat substantial increase, the main problem still remains since tourism is still not at the level it was pre-pandemic after nearly 2 years.

Goals: International hospitality business owners want to reach levels of income and revenue generated primarily by tourist arrivals to match the levels pre-pandemic. Worldwide, the expected revenue for hotel owners generated by the tourism industry is aimed to reach \$406.5 billion by the end of 2023 [8] so the expected timeframe for results of this webapp should be to see improvements in hospitality revenue by the end of 2023. The webapp created must provide clear and useful information on the international tourism number of arrivals for hotel business owners to choose the best locations for hotels, with the intention of supporting and continuing to generate increased revenue for the industry for the next 10 years.


Importance: As a direct result of addressing the problem, the income generated by tourists that use hotels will grow, first returning to levels pre-pandemic and with the plan to increase even higher. This will allow hotel business owners to afford maintenance, property rent, hotel services, facilities and more importantly, to pay their countless members of staff's salaries. By increasing the revenue generated, it not only benefits the income of the hotel economy but also the local and national economy, since it heavily relies on tourism [8].

Part 2 Target Audience: Hotel Business Owner

The main members who will benefit from the problem above being solved are hotel business owners. An example of a hotel business owner is used, with a hotel chain business currently in the UK, who aims to expand to international locations. This owner needs to find the best location where there will be high demand and opportunities for his business to grow.

Persona:

Jonathon Jones
age: 32
residence: London, United Kingdom
education: MSc Business Finance at UCL
occupation: Hotel chain business owner
marital status: Married, two children



"I want an easy, simple way to choose some locations for my hotels, in countries that have large numbers of tourists, to increase my revenue."

"I usually spend my working days in my office in Central London or working from my home office."

Comfort With Technology
INTERNET
SOFTWARE
MOBILE APPS
SOCIAL NETWORK

Criteria For Success:
Successfully running hotels with sufficient revenue to pay my staff, facilities and rent makes me feel successful. The Covid-19 pandemic greatly hindered my profits and progress for my business and has caused me to work a lot more to try to increase revenue, so I spend less time with my family. I am happy with the restrictions lifted, and the number of people using my hotels slowly returning back to normal but it is still nowhere near the levels it was at pre-pandemic. For success, I believe in sufficient revenue generated by my hotels but also an adequate work-life balance to spend time with my family.

Needs

- To determine the best location to set up hotels with the most number of international tourists.
- To increase revenue generated by the hotels with increased tourist use.
- To ensure that enough income is generated to pay staff.
- To ensure enough income is generated by increased tourist arrivals using the hotels to pay for facilities and property rent.
- To find a location that has been proven to have a consistent increase in levels of tourist arrivals over at least 10 years for future-proofing.
- To possibly locate multiple hotels in country region groups with a large number of tourists.

Values

- High level of planning for all tasks.
- Learning about new technologies and applications.
- Learning new business strategies to improve overall business profits and growth.
- Spending time with my wife and two children while balancing my difficult job.
- Networking and socialising with other people, building business partners but also friendships.

Wants

- To have increased attraction and popularity to existing hotels.
- To be able to access the app at any time on demand.
- To have increased profits for personal use and leisure and to spend on my family.
- For the webapp to be quick and efficient to use and shouldn't take more than 15 minutes, given my busy schedule.
- To use the app on any device connect to WiFi or mobile data.
- To spend less time on my business and more time with my family.

Fears

- Not finding a location to increase tourists using my hotels.
- Complicated app layouts with unnecessary information.
- Not understanding the information and trends for a successful hotel location.
- Too much time being wasted on the app, taking away from time working and spending time with family.

HOPE HOTELS LTD.

Website used to create persona: <https://personagenerator.com/null/null>

Part 3: Data Science Questions

These were some questions that could be useful in the development stages of the app to achieve the goals of the target audience.

1. Which countries have the highest average number of arrivals over at least 10 recorded years?
2. Which regions have the highest average number of arrivals over at least 10 recorded years?
3. Which countries have the highest and lowest number of arrivals over the last 5 recorded years?
4. Which country was the most affected by the Covid-19 pandemic in the number of arrivals – i.e., which country had the largest drop in arrivals between 2019 and 2020?
5. Which country was the least affected by the Covid-19 pandemic in the number of arrivals – i.e., had the smallest drop in the number of arrivals between 2019 and 2020?
6. Which income category/type of country (low, high, lower middle, upper middle) had the biggest decrease, on average in the number of arrivals between 2019 to 2020?
7. Are there any gaps or inconsistencies (possible anomalies) in arrivals over the years for different countries?
8. Which of regions (official groups of countries recognised by the world data bank [9]) have the highest numbers of arrivals (for the target audience to possibly set multiple chains of hotels in the overall region)?
9. Are there any trends between the income group and the average level of tourism (number of arrivals)?

References:

- [1]: <https://fbj.springeropen.com/articles/10.1186/s43093-020-00048-3>
- [2]: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8646688/>
- [3]: <https://wiki.otelms.com/en/post/types-of-hotel-services/#ah2>
- [4]: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8631802/>
- [5]: <https://www.economicsobservatory.com/update-how-is-covid-19-affecting-international-travel-and-tourism>
- [6]: <https://data.worldbank.org/>
- [7]: <https://www.unwto.org/news/international-tourism-back-to-60-of-pre-pandemic-levels-in-january-july-2022>
- [8]: <https://www.unwto.org/news/international-tourism-back-to-60-of-pre-pandemic-levels-in-january-july-2022>
- [9]: <https://ourworldindata.org/grapher/world-regions-according-to-the-world-bank>