

Top 6 Traveling Agencies Performance Analysis Using Google Lighthouse Matrix



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1.0 Abstract

With the increasing modern trend, one can accomplish a multitude of tasks with merely the tip of the finger. This has a lot to do with travel, since users will see and select how to utilize or follow the appropriate standards. In our analysis, we make use of Google Lighthouse, an automated tool that gives web sites the ability to adapt. For every homepage we examine, this tool provides us with an overview of the functionality, accessibility, and progressive SEO web apps. We can conclude that Expedia's website gets the highest score compared to others. In summary, every kind of travel agency website has unique benefits based on user preferences.

2.0 Introduction

In today's fast-paced digital world, the realm of tourism has witnessed a significant transformation, with the emergence of travel websites. Numerous tourism activities can be conducted through online platforms. These platforms, commonly referred to as e-tourism websites, serve as a hub facilitating various travel-related transactions and experiences. Based on the data collected, 6 of the most visited travel websites include TripAdvisor, Airbnb, Booking, Expedia, SkyScanner and Agoda. The success of a tourism website, attracting millions of visitors, hinges greatly on its performance. When a tourism website operates smoothly, visitors are more inclined to engage comfortably and carry out more transactions. A tool that can be used for evaluating and optimizing the performance of tourism websites is Google Lighthouse. This open-source automated tool serves as a resource for enhancing website quality. The findings of this report's evaluation will be used as a guide for future development and enhancement for tourism websites.

3.0 Literature review

3.1 Website

Website is a set of web pages and web content that is related and identified by a unique domain name that is published by one or more web servers. A single website is managed by an individual or organization and it can be publicly accessed through a unique web address [10]. Websites may contain information, images, videos, or other interactive features. Users can access these websites by typing in the specific web address into their web browser such as chrome, edge and safari.

3.2 Travel Agencies

Travel agencies are organizations that help customers to make their travel arrangements that may include accommodation, activities and flight tickets booking [12]. Travel agencies are one of the industries that heavily rely on websites for marketing their services and reaching potential customers. By having a well-designed website, travel agencies can showcase their packages, provide information about destinations, and facilitate bookings online, making it convenient for travelers to plan their trips.

3.3 TripAdvisor

TripAdvisor is one of the most influential and trusted online platforms in the travel industry, founded in 2000. One of TripAdvisor's features is its extensive database of user-generated reviews and ratings for hotels and attractions. It provides a powerful search tool that allows users to find and reserve directly through the platform. Users can compare prices, availability and amenities to find the best deals for their travel needs. It is also

powered by Artificial Intelligence(Ai) to build a user's personalized itinerary guided by traveler tips and reviews.[9]

3.4 Airbnb

Airbnb is a peer-to-peer online marketplace that connects people who want to rent out their homes with people looking for accommodation in specific locales. Founded in 2008, Airbnb offers quite unique alternatives to traditional accommodations, who offer a diverse range of lodging options. On its website, guests can click on any listing to view all kinds of details about the property. With listings in over 220 countries and regions, users can find suitable accommodation wherever their travels may take them. [7]

3.5 Booking

Booking.com is a rapidly growing travel firm that is often utilized by anyone seeking to travel. Making the world a pleasant place for everyone to experience is the aim that was initially identified in Amsterdam in 1996. By applying technology in this aspect of travel, booking.com provides the opportunity to experience amazing adventures, excellent transportation options and most importantly a comfortable place to stay. Booking.com provides more than 28 million listings of places to stay, including more than 6.6 million homes, apartments, and other distinctive locations. Booking.com is written in 43 languages to make its users feel comfortable. Not to be overlooked, visitors of this website can access it 24/7 from anywhere at any time.[2]

3.6 Expedia

One of the largest travel agencies is expedia.com, which is considered a highly popular booking platform. Due to its numerous features, expedia.com is Booking.com's biggest rival. Fun fact: Booking.com is well-known in Europe, and Expedia is a top company in America.. After three years, expedia.com moved on its own, leaving Microsoft behind. This business is renowned for its integrity, since there are no con artists or fraudulent activities against users that could cause them distress.[5][6]

3.7 Skyscanner

Skyscanner is a travel agency that allows users to plan and make bookings for their travel by using a metasearch engine that searches through multiple sites to compare travel deals including hotels, airlines and vehicle rentals. The website is accessible in more than 30 languages. Skyscanner offers many types of services which include direct bookings on, hotel integration and flight integration.[4][13]

3.8 Agoda

Agoda is a company that was founded in 2005 which offers affordable deals on hotels, flights, activities to do while traveling and more. Agoda can be accessible by people around the globe as they have services and support in over 40 languages. Agoda has a "Book Now, Pay Later" option for some hotels, allowing users to book accommodations without having to pay right away. Additionally, a lot of their accommodations provide free cancellation, so users may modify their trip schedules without worrying about incurring cancellation penalties. Lastly, Users can also earn points through Agoda's loyalty program, which can be redeemed for discounts on future bookings. [1]

3.9 Google Lighthouse and Matrix Google Lighthouse

Google lighthouse is a google tool that audits web performances which includes accessibility, best practices, performance and SEO. Google lighthouse also makes recommendations on how to make these improvements.[8] The performance audit gauges how fast users can access the website and how long it takes for the website to load. Other than that, accessibility tests how easily users of assistive devices can navigate through the website while best practices in lighthouse examines website compliance with current web development standards. Lastly, SEO conducts an assessment to examine the webpage for certain technical SEO elements. [8][11]

4.0 Method

This research begins with thorough literature review from various sources including articles and websites as supporting materials. It includes analyzing the background of each e-tourism website chosen. Data collection is conducted by inserting targeted websites into Google Lighthouse. This tool evaluates website performance across five key areas, each scored on a scale of 0 - 100; Performance, Accessibility, Best Practices and SEO. Scores falling within the range of 0 - 49 are deemed inadequate, 50 - 89 signify satisfactory performance, while 90 - 100 denote exceptional results. Google Lighthouse operates on various web pages, conveniently used as a Chrome extension. Following the analysis and testing phase, findings from the Lighthouse tool are the highlight of our research, to analyze reports from each of the audited e-tourism websites (TripAdvisor, Airbnb, Booking, Expedia, SkyScanner, Agoda).

5.0 Result and Discussion

	E-Tourism Websites	Analysis Result			
		Performance	Accessibility	Best Practices	SEO
1.	TripAdvisor	66	88	78	99
2.	Airbnb	30	96	96	99
3.	Booking	49	97	74	92
4.	Expedia	43	95	96	100
5.	Skyscanner	50	100	56	99
6.	Agoda	48	79	74	85

From the analysis result, it can be seen that in terms of performance, TripAdvisor takes the highest score, 66 in a yellow index. SkyScanner grants the full mark in terms of accessibility, getting a 100 and a green index. In terms of Best Practices, both Airbnb and Expedia are highly evaluated, getting 96 and a green index. For SEO evaluation, Expedia can be seen as superior among all, granted full 100 and a green index. Overall, it can be concluded that Expedia performs the best among 6 of the audited websites, and Agoda ranks the worst, calculating their average performance report.

6.0 Conclusion

We have conducted an analysis and tested the top 6 travel firms using Google Lighthouse. We have based our findings on best practices, accessibility, SEO, and optimum performance. In essence, every feature we look at is critical to determining the quality of the website. All of these travel agency websites display other important aspects, though, that should also be highlighted. We can distinguish one from the other based on the typeface and size, where it is a crucial component of a website. Afterwards, concerning color. We want to underline that the colors chosen are more calming and not overly brilliant, making them appropriate for all kinds of users. Many vivid hues, like orange or turquoise, are inappropriate for this type of user interface[3]. No matter how they are presented, some of these viewpoints ought to be included on all websites since they have the potential to inspire users to utilize them and incorporate them into daily life.

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