REVIEWING BOOKING.COM WITH SHNEIDERMAN'S 8 GOLDEN RULES

Hilal Özhan (33.3%), Gizem Erpek (33.3%), Ceren Kurtuldu (33.3%)

KEY WORDS

User interface, consistency, user experience, design, usability.

ABSTRACT

The general purpose of this article was to determine how user-friendly the interface design of the booking application is, and to find this out, we made an analysis based on the findings we found by using Schneiderman's 8 golden rules. As a result of our investigations, we saw that the rules and compliance with these rules are important steps that must be followed in user-friendly interface designs. The biggest factor in reaching this conclusion is that while examining the booking application, we observed that the lack of implementation of the rules had a very negative impact on the user experience, while the implementation of the rules increased the user experience.

INTRODUCTION

Shneiderman's 8 golden rules are used to create more user-friendly interfaces for users. Thanks to these rules, user-friendly interface designs can be made or improvements can be made in existing interfaces according to these rules. These eight rules we mentioned are; Strive for consistency, enable frequent users to use shortcuts, offer informative feedback, It consists of design dialogs to yield closure, offer error prevention and simple error handling, permit easy reversal of actions, support internal locus of control and reduce short-term memory load. In this article, by taking advantage of Shneiderman's 8 golden rules, we examined the interface of the booking com application, which of these rules are used and the impact of their use on the user experience or the negative effects of their deficiencies on the user.

LITERATURE REVIEW

Sasmoko, Y.Indrianti, Davy Ronald Hermanus (2023) highlights the mobile application design, usability and performance evaluation of AEP Mobile in the article AEP Mobile Application Evaluation of Usability, Performance, and Shneiderman's Recommendations (2023). Since the mobile application is designed in accordance with Shneiderman's Eight Golden Rules of Interface Design and the (Five) Human Factors of Interactive Software, it is an article that evaluates whether potential users would consider the mobile application as user-friendly according to Shneiderman's recommendations.

Sasmoko Sasmoko & Yasinta Indrianti Eight Golden Rules in Asean Entrepreneurship Profiling Website Development(2023) This study shows that the website has met the rules of the indicators contained in the Eight Golden Rules, namely Strive for consistency, seek universal usability, offer informative feedback, Design dialogues to yield closure, Prevent Errors, permit easy reversal of actions, keep users in control and reduce short-term memory load.

Muhammad Jizan, Muhammad Muadzzim (2017) in the article Responsive web design system for student representative council based on Shneiderman's Eight Golden Rules SRC, the highest student organization in the University, took the initiative to have an official website to centralize the

communication environment among the students of UiTM Malacca Branch Jasin Campus. The goal is to develop a responsive web design based on Shneiderman's Eight Golden Rules. It consists of eight rules that focus on design principles to ensure that the system does not disappoint the interface. At the end of development, this system will be used by approximately 4000 students of UiTM Malacca Branch Jasin Campus, providing strong motivation to complete this system in time. To aid development, this system was guided using the System Development Life Cycle (SDLC) methodology, which was converted into 4 phases.

Naladtaporn Aottiwerch, Urachart Kokaew (2017) It is stated that educational materials created with Augmented Reality technology are inaccessible and difficult to use. The researchers co-developed online training materials and designed the training materials based on Shneiderman's 8 Golden Rules theory for ease of use. These materials were used to measure performance with real applications by third-year students of the Faculty of Science at Khon Kaen University. The results show that Augmented Reality training materials are accessible and easy to use in the online system. It is stated that it has been very welcomed by users and received a very good evaluation, with an average score of 4.5 on a scale of 1-5.

METHODOLOGY

In order to examine the Booking.com website with Shneiderman's 8 golden rules, a visual examination was first made to determine Shneiderman's 8 golden rules such as "Strive for consistency", "Enable frequent users to use shortcuts", "Offer informative feedback ", "Offer error prevention and simple error management", "Permit easy reversal of actions", "Support internal locus of control", "Reduce short-term memory load". Data was collected through a visual inspection and researcher observation to evaluate how Shneiderman's 8 golden rules were applied on the Booking.com home page.

Then, key pages of Booking.com, such as the home page, hotel details and booking process were analyzed in terms of Shneiderman's 8 golden rules. This analysis included examining factors such as page consistency, shortcuts, feedbacks, errors, locus of control, reversal of actions etc.

This methodology helped us understand how Booking.com's user interface is perceived and how it affects the user experience. Platforms such as Google Schooler were crawled. The research scope is limited to the Booking.com page.

FINDINGS AND RESULTS

1. Strive for consistency

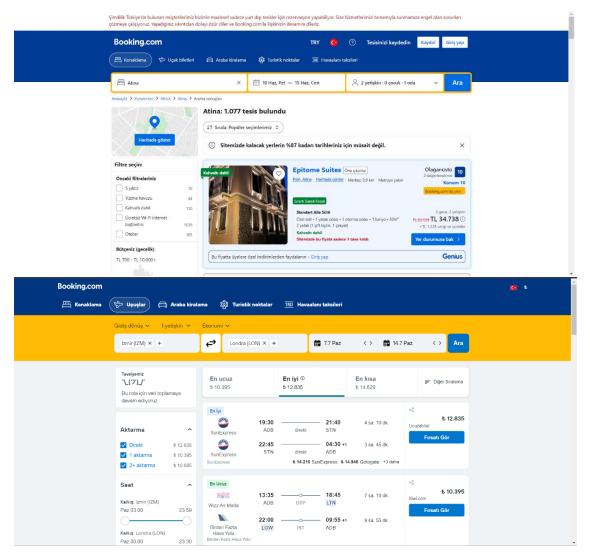
Consistency on websites is very important for user experience. A predominantly blue-white color palette is used on the Booking.com website. This color palette is applied on all pages and consistency is ensured.

The same font (sans-serif) is used on the pages of the Booking.com website. This font provided a clean and neat appearance. The same size of the headings was used. Consistency has also been ensured for other articles.

The images used on the website are of the same size, style and quality. The icons and symbols used on the website are easy to understand and used in the right place. Consistency is ensured because the same icons and icons are used on all pages. Search, log in, sign up, filter, search bar and navigation menu are in the same place and with the same function on every page. This ensured consistency for users.

The website gives warning messages to users when necessary for the countries they will visit. It always gives these warnings to the user for the required countries and places. If the site is used incorrectly, the same warning messages are displayed every time. Examples of these warnings are given in the images below. These features reinforce consistency and trust in the site for users.

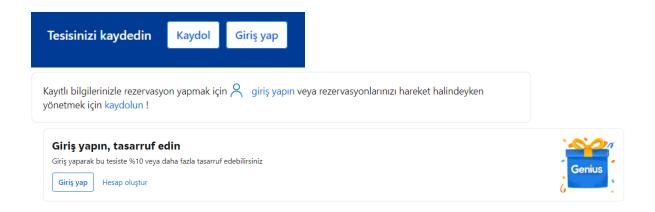
The fact that the Booking.com website maintains the same design, layout and layout across different browsers, devices and applications indicates that it provides consistency.



2. Enable frequent users to use shortcuts

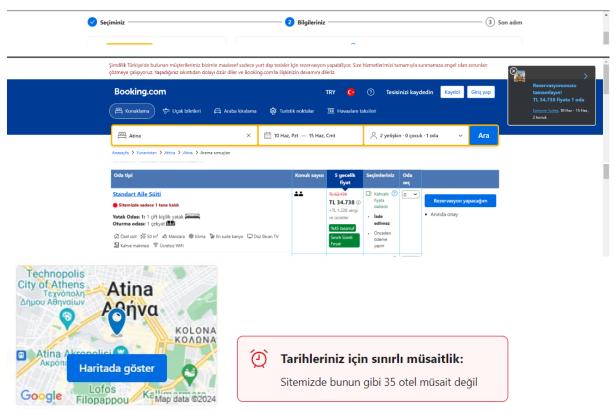
For frequent users, shortcuts are important to use the site faster and more efficiently. The Booking.com website has a registered account feature, saved search history, payment information and personal information storage features that meet this feature.

Frequent users can access their past holidays, previous reservations, flight tickets, past car rental summary, favorite hotels and saved ones. They do not need to enter their information again. This makes it easier to use the site and get their work done. It offers special holiday recommendations and special discounts for registered users. It records users' frequent vacations and provides great convenience when they want to do them again. It offers a quick booking feature to frequent users as it keeps payment information for frequent users. It sends reminders, reservation confirmations, personalized notifications based on interests, special discounts and opportunity notifications to its frequent users.



3.Offer Informative Feedback

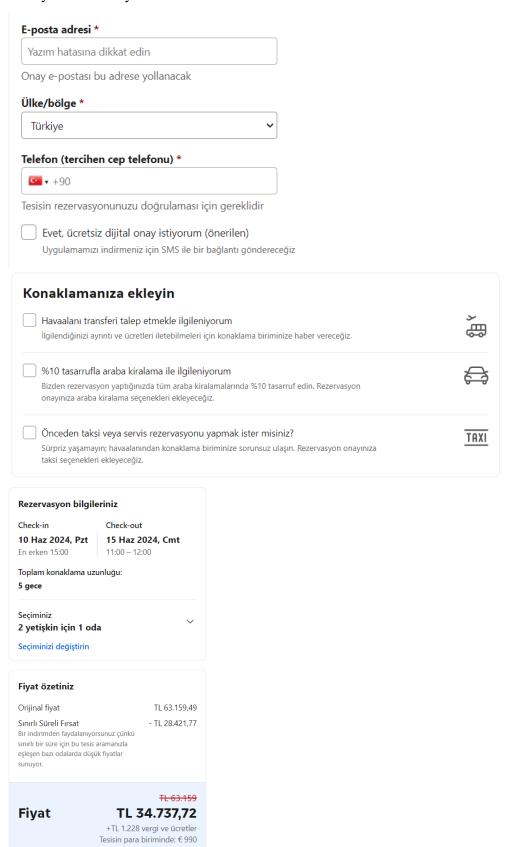
There should be an interface feedback for every user action for example a progress bar which shows you what steps are left in the booking process, confirmation messages for your selections like "here is places to stay based on your filters", price changes, room availability, interactive maps which shows the location of the hotel or summary of your choices of dates room types etc.

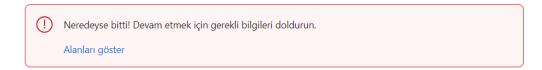


4.Design Dialogs to Yield Closure

There should be a confirmation message at the end of any interaction for example receiving an email or sms after your booking, redirection to a confirmation page that shows a summary of your reservation, notifications of your upcoming stay or check in, a thank you message if you have booked successfully or an error message if you made a mistake, a reminder to sign in or register to the website to earn points or get a member only discount which is called loyalty program in our website, guidance for next step like an email for the further details on confirmation page it offers option to change your

selection or add extras like renting a car, book a taxi, request an airport shuttle or a special request which you can write your needs.





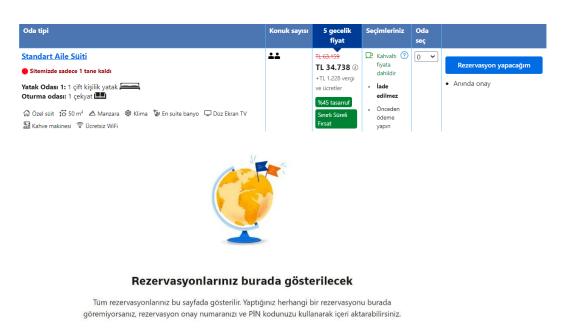
5.Offer Error Prevention and Simple Error Management

Error prevention: Comprehensive and resolved issues of errors made by the user with simple error management, allowing users to move forward without making any mistakes. In the booking application we reviewed. In error prevention; First of all, the dates we display in the date ranges are not the past, but we have to make continuous improvements at the user moment, starting from the present. In addition, a possible risk and error regarding poor security-related accommodation situations is stated on the site and the decision is left to the user. However, in the same way, I receive a daily warning that I cannot make a reservation in some areas, but this accommodation is wanted. users had to spare so much time. If it is necessary to give simple error management, if the user wants to make any reservation, he does not make a reservation and if he does not reserve the rooms he wants, warning messages are given. In this way, even if he does not know how to make a reservation, the site guides the user with warning messages. Possible errors and omissions are avoided in this way, and also if your reservation has not been completed yet. You also receive warning messages. Even though I don't want to indicate a problem, I constantly receive this warning every time I enter the page and it does not work.



6.Permit Easy Reversal of Actions

Easy withdrawal and cancellation processes are vital for users to feel safe while using the application. Cancellation processes are very important, especially on a reservation site such as booking, because most reservations made in advance do not fit into people's life flows and require transactions such as change and cancellation. This process is required when making a hotel reservation on the site. We see that the permissions given by the hotels are stated before making the reservation. If it allows cancellation, it can be easily canceled from the reservations. Likewise, the cancellation can be made by calling customer services. In other transactions, such as flight tickets or car rental, the site directs you to the company where we process the transaction and the cancellation options of that company are valid, booking has no authority over this.

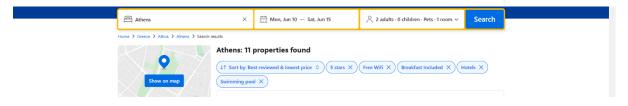


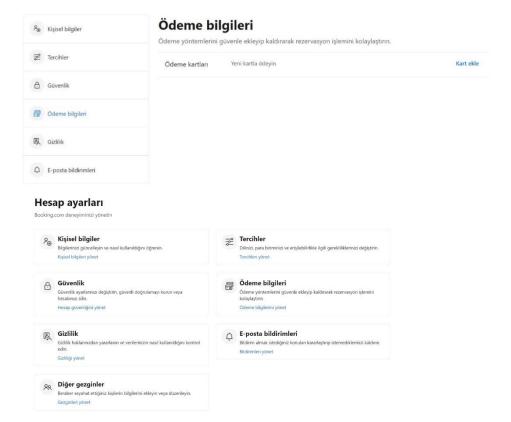
Rezervasyonu içeri aktar

7. Support Internal Locus of Control

User control applications have an important place in terms of increasing the sense of trust in the user. It is very important for the user to have control over the application and to have a say in all transactions, especially on sites where he enters his card information and personal information. If the user does not feel safe and in control, he will hesitate to enter such information and this will have negative consequences on the use of the application.

The aim of the booking site is to provide a result completely in line with the user's wishes by offering too many criteria options based on the criteria determined by this user in reservations and other transactions, but this causes excessive crowding and eye fatigue on the site. Apart from this, the account settings are entirely in the user's hands. For example, if the user wishes, he can save various cards to his account or enter his account information when he performs the transaction. Likewise, we can adjust the notification settings as we wish and notify only those we want to be informed about. It also allows us to add our friends and act together in making plans if we want. Booking also allows users to comment and rate the reservations they have made, making the user feel that they are in control.





8. Reduce Short-Term Memory Load

This rule is to save users from redundant and unnecessary situations that require them to keep information in their short-term memories. This rule must be followed so that the person does not repeat the transactions he has made over and over again and does not enter the information he entered again and again. Users should not get bored or tired while performing their transactions on the site. This rule increases the functionality of the site. Booking.com remembers users' past holidays, reservations, favorite holidays and hotels. It provides great convenience to users by remembering their old information during the holidays they want to take again.

It uses breadcrumbs that show which page the user is on and what he did on the previous page. It also uses cookies to track users' session duration, remember user settings and choices, and for targeted advertising. It continues to keep the user's session open for a certain period of time after leaving it. In this process, the user does not have to log in when he re-enters the site after a short time. Booking.com securely stores personal information and payment information for its registered users. Thanks to this feature, it offers special suggestions and opportunities to the user. It makes payment faster and easier for the user by remembering the payment information when they make a reservation.





DISCUSSION

We come across Shneiderman's 8 golden rules in the Booking.com application, we come across these rules, but we can discuss the adequacy of the use of some rules. One of them is the Permit Easy Reversal of Actions rule, although the site provides this rule sufficiently in reservations. I would like to see support and a cancellation option within the site for its applications. Directly posting it to other aircraft site applications gives the impression that it does not accept responsibility.

In addition, although there is no deficiency in the application of the Error Prevention and Simple Error Management Present rule, I encounter some errors in the warning messages in use and application, one of which is the warning message that comes after interrupting the reservation process, which I mentioned in the rule. I receive this message even if I do not want to complete the reservation, and even if I close this warning, I receive the same warning every time I re-enter the application.

CONCLUSION

We can say that Shneiderman's 8 golden rules are generally used on Booking.com. A user-friendly interface has been designed to ensure overall consistency across the entire site.

Likewise, Offer Error Prevention and Simple Error Management, Permit Easy Reversal of Actions, .Support Internal Locus of Control rules provide the required user control and make the user feel safe, thus increasing the usability and application security in the application. Apart from this, it provides ease of use by making it easier for the user to follow the process through feedback within the application. Although its interface design does not provide much ease of use for people who are very bad with technology, it is a very successful application in terms of ease of use and thus appeals to a very wide audience.

REFERENCES

Sasmoko, Indrianti, Y., Koentjoro, R.P., Manalu, S.R., & Hermanus, D.R. (2023). AEP Mobile Application Evaluation of Usability, Performance, and Shneiderman's Recommendations. 2023 10th International Conference on ICT for Smart Society (ICISS), 1-6.

(2023). Eight Golden Rules in Asean Entrepreneurship Profiling Website Development. Proceedings of the International Conference on Industrial Engineering and Operations Management.

Mazumder, F. K., & Das, U. K. (2014). Usability guidelines for usable user interface. International Journal of Research in Engineering and Technology, 3(9), 79-82.

Aottiwerch, N., & Kokaew, U. (2017, July). Design computer-assisted learning in an online Augmented Reality environment based on Shneiderman's eight Golden Rules. In 2017 14th International Joint Conference on Computer Science and Software Engineering (JCSSE) (pp. 1-5). IEEE.

binti Ayob, N. Z., Hussin, A. R. C., & Dahlan, H. M. (2009, April). Three layers design guideline for mobile application. In 2009 International Conference on Information Management and Engineering (pp. 427-431). IEEE.

KHUAN, O. (2013). Study of FSKKP portal based on shneiderman" s eight golden rules. J. Teknol.

ACKNOWLEDGMENTS

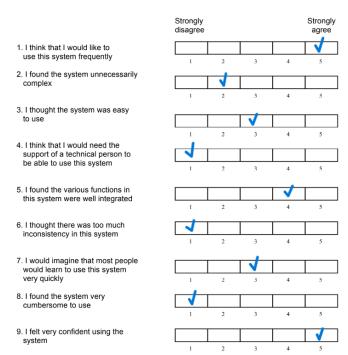
Thanks to Ceren Kurtuldu, Gizem Erpek and Hilal Özhan for their contributions to this research article.

SUPPLEMENTARY

SUS

- I think that I would like to use this system frequently
- I found the system unnecessarily complex
- 3. I thought the system was easy to use
- I think that I would need the support of a technical person to be able to use this system
- 5. I found the various functions in this system were well integrated
- I thought there was too much inconsistency in this system
- 7. I would imagine that most people would learn to use this system very quickly
- 8. I found the system very cumbersome to use
- I felt very confident using the system
- 10. I needed to learn a lot of things before I could get going with this system

Gizem's score: 87.5

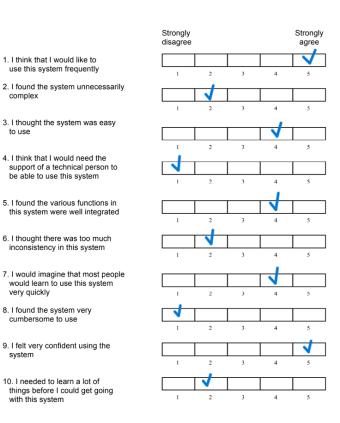


Hilal's score: 85

complex

to use

10. I needed to learn a lot of things before I could get going with this system



Ceren's score: 85

Average score of all: 85.83