User Interface Design Prototype Application Special Onthel Bicycle Tourism in Towilfiets Yogyakarta

Arief Yulianto[1] *
[1] Nusantara Citra University Indonesia
[1] r.ariefyulianto@gmail.com

ABSTRACT

Foreign tourist visits to Yogyakarta, Indonesia have increased in 2022 and 2023 after Covid-19. Many tourists are seeking unique experiences, such as riding on bicycles to enjoy the beautiful scenery and interact with local residents. Towilfiets, a pioneer in onthel bicycle tourism, has been operating in Bantar Hamlet, Kulon Progo for around 10 years. With the growing demand for this activity, Towilfiets needed to innovate their promotion methods, specifically in the digital industry. The development of a user-interface design-based application became crucial to enhance and facilitate the onthel bicycle tourism experience at Towilfiets. The research conducted used a mixed method approach with a phenomenological qualitative method to gather interview data. The prototype method was chosen to allow for intensive and better communication between developers and users. The validation of the questionnaire data was calculated using the Scalable Usage System and received a good score 75 up to score 100 point, indicating acceptable usability. By focusing on user needs and the unique characteristics of tourist destinations, this application aims to increase user engagement and provide relevant and useful information about bicycle tourist attractions in the area. Ultimately, the research aims to develop an innovative and contextualized user interface design application that supports the growth of onthel bike tourism in Towilfiets, located in Dusun Bantar, Kulon Progo, Yogyakarta, Indonesia.

Keywords: User Interface Design; Tourism Application; System Scalable Usage; Prototype; UI/UX

1. INTRODUCTION

The post-Covid-19 tourism in Indonesia has seen a significant increase in foreign tourist visits. In August 2022, foreign tourist visits reached 510.25 thousand, a 28,727.46 percent increase compared to August 2021, (Badan Pusat Statistik, n.d.). Compared to the previous month, there was a 6.98 percent increase. However, in 2021, the pandemic negatively impacted tourism in Yogyakarta, with the closure of international flights resulting in the absence of foreign tourist arrivals. Tourism started to rebound in April 2022 with 35 foreign tourists entering Yogyakarta International Airport. The number of visits increased significantly in May, June, July, and September 2022. In December 2022, arrivals tripled from the previous month. In 2023, foreign tourist arrivals continued to show a positive trend from February to August, except for a decrease of 8.62 percent in September. The top ten countries of origin for foreign tourists visiting Yogyakarta from January to September 2023 were Malaysia, Singapore, China, France, the United States, India, Italy, Germany, Japan, and the United Kingdom. Although there was a decrease in visits from these countries in September 2023, the overall level of foreign tourist visits had increased significantly compared to the previous year, (Badan Pusat Statistik, 2023).

The district of Kulon Progo in Yogyakarta, Indonesia has begun a trial opening of tourist attractions as of October 23, 2021, (Pramono, 2023). There are 31 tourist attractions that have been opened with strict health protocols (Sendari, 2023). This trial opening is in line with the government's criteria for opening tourist destinations. One of the tourist destinations in Kulon Progo is Towilfiets, which offers onthel bicycle tours in the Bantar area (Novianti, 2023). Towil, the founder of Towilfiets, aims to build a sense of togetherness and cultural exchange by allowing tourists to interact with residents in their daily activities (Pramono, 2023). The tour packages include visits to local attractions such as tempe production and stagen weaving. Towilfiets mainly attracts European tourists, with around 250 European visitors per month (Pramono, 2023). Towilfiets focuses on introducing the eastern culture of Kulon Progo and does not serve wine, focusing instead on providing traditional countryside food and drinks (Pramono, 2023).

The background and purpose of a research project focused on developing a user interface design-based application for onthel bicycle tourism in Bantar Hamlet, Indonesia. The protagonist, Towil, decided to close his

* Corresponding author

craftsman and exporter business to pursue his hobby of cycling and offer tour services to European tourists,. The growth of the digital economy in Indonesia, particularly online travel, is seen as potential support for the national economy (Triwardani et al., 2016). The research aims to optimize the onthel bicycle tourism experience in Bantar Hamlet by creating an application that conveys the beauty and uniqueness of the destination, provides accurate bicycle route information, and facilitates positive interactions between tourists and the local community. Integration of local wisdom and cultural elements is also crucial. The research project is expected to contribute to the empowerment of the local community by creating a sustainable and profitable onthel bike tourism experience (Prastika & Sunarta, 2018). Ultimately, the research aims to develop an innovative and contextualized user interface design application that supports the growth of onthel bike tourism in Towilfiets, located in Dusun Bantar, Kulon Progo, Yogyakarta, Indonesia.

2. LITERATURE REVIEW

The journal from Arief Yulianto the title is Creation UI Design Prototype Mobile App Textile Museum to Increase The Number of Visitors, Tourism Marketing and Brand Awarenes. Syntax Admiration Journal. Vol.4, No.7, July 2023. Method used was a qualitative approach using phenomenological methods because the purpose of research is to find the essence of an experience. In this case, the experience of visitors to the Textile Museum. Through this research, it is expected that scientific contributions will emerge in order to understand the process of designing mobile apps for brand awareness in increasing visitor capacity. After the selection of participants, an in-depth interview will be conducted to extract the essence of the interview data of the management and visitors of the Textile Museum. The result and finding Special tourism can take advantage of the existence of the Jakarta Textile Museum by integrating it into travel packages specifically designed for tourists interested in textile arts, handicrafts, or Indonesian culture. Tourists can visit this museum as part of their trip aimed at exploring Indonesia's textile wealth, attending special events or workshops organized by the museum, and gaining a deeper understanding of Indonesian textile art. Scientific gap that are the basis for implementation research thus, the Jakarta Textile Museum can be an attractive destination in special tourism that focuses on textile arts and Indonesian culture. Not only that, developing a digital application for the Jakarta Textile Museum is a good step to increase brand awareness and marketing, (Yulianto, 2023).

The article thesis from Arief Yulianto is Tourism Marketing Development Strategy *"Towilfiets"* In Preserving the Culture of Wisdom Local in Bantar Hamlet, Banguncipto Village, District. Sentolo, Kab. Kulon Progo. Thesis. Master's Program in Fine Arts Governance. Concentration in Culture and Tourism Management. Indonesian Institute of Arts. Yogyakarta, (2018). The research approach uses two analyses, namely: 1. Qualitative Analysis, used to find out subjective data in the field related to consumer satisfaction, public opinion, and marketing activities carried out so that the satisfaction of visitors and tourists at Towilfiets can be known. 2. Quantitative Analysis, used to find out objective data in the field related to demographic data, the flow of travel services used, market segmentation, the tourism package process in progress, the importance of benefits regarding special tourism processes in terms of maintaining local wisdom. Research conducted in Towilfiets found that the management of Towilfiets was entirely carried out by individuals and assistance from relevant village officials was still lacking. Apart from that, the involvement of local residents as tourist attraction guides is still not running, even the existence of PokDarWis is also not running or has not been established. People who still maintain their local wisdom and culture, coupled with areas or views that are still beautiful, are Towilfiets' advantages. However, if it is not preserved together with the community, the continuity of a local wisdom culture will lose its successors, (Yulianto, 2018).

The journal from Miftahul Huda, and friends. The title about User Interface Design of The Kebumen District Explore Tourism Mobile Application. Technology and Informatics Insight Journal Vol. 01, No. 01, September 2023. Putra Bangsa University. Kebumen, Central Java. Using prototype research methods. This approach is the choice because it has the advantage that communication between developers and users is more intensive and better (Nurhindarto et al., 2020). At the research stage, the prototyping model is a method of developing an information system by developing a prototype to help in getting an initial picture of the system that will be created. Overall, the Explore Kebumen application prototype shows significant potential to improve the tourism sector, especially in Kebumen Regency, by providing an interactive and informative experience for tourists. The results of this research can be used as a basis for further development to create applications that are useful for users and industry in the tourism sector, (Hidayat et al., 2023).

The journal from Davie Muhammad Nida Ulfalah and Rizki Hikmawan. Title is Implementation of UI/UX Design on Website-Based Information Systems at SMPN 3 Pacet, 2nd National Conference on Education, Systems and Technology Information, Indonesian Education University, Bandung (2022). Using various methodologies to design

* Corresponding author

UI/UX known as Human Centered HCD Design. HCD is an approach that focuses on all potential and non-potential information system users as test objects in the data collection process and evaluation process on the website information system being designed. Results and findings from trials in the data collection process and evaluation process on the website information system that is being designed. And there are 3 processes in the HCD method, namely: Inspiration, Ideation, Implementation. In the results of the questionnaire regarding user testing regarding prototype trials with a total of 25 testers, 52% said it was good, 36% said it was quite good and 12% said it was not good from the appearance of the SMPN 3 Pacet website interface, (Muhamad et al., 2022).

The journal from Ngurah Rangga Wiwesa, titled is User Interface and User Experience for Managing Customer Satisfaction. Journal of Applied Social Humanities, University of Indonesia. Depok. West Java, (2021). The choice of observation method depends on the research issue, the level of group or individual cooperation in the research, and ethical factors. Primary data in this research was obtained using participant observation methods and unstructured observation of aspects in the digital field, and was complemented by secondary data collection obtained from various literature. The data obtained from usability testing will be synthesized and analyzed for deficiencies. If deficiencies are found or there are things that need to be added, the Researcher and Product Designer will return to the UX and UI design stage, then re-develop the revised design and usability testing will be carried out again until the results are in line with the predetermined targets. Developing processes and tools as the main design foundation is one of the main focuses of the UI/UX team. The steps that have been taken by the UI/UX division are creating user archetypes, completing the components and documentation of the Ravier Design System, finding a new visual illustration language that suits Ravier's style, and creating a content guideline based on the brand's Tone of Voice, as well as executing the end to end process. end design thinking properly and correctly, (Wiwesa, 2021).

3. METHOD

The research used is a mixed method, interview data is taken with phenomenal qualitative research methods and then redeveloped the data into the basis of the prototyping method which is break down again with the reduction of test results by calculating data with System Usage Scalable validation. Qualitative research was chosen because the observed phenomenon needs open observation, it is easier to deal with reality, emotional closeness between researchers and respondents so that in-depth data is obtained. This type of research has the aim of exploring the peculiarities of a person's experience when experiencing a phenomenon where the phenomenon can be opened and selected to achieve an existing understanding. The strategy used in this qualitative research is phenomenology. Phenomenology was chosen because in it the researcher identifies a certain phenomenon and requires the researcher to study the subject by being directly involved to develop meaningful patterns and relationships (Creswell, 2010).

The development of mobile-based information systems in this study is using the prototype research method (Nurhindarto et al., 2020).This approach is the choice because it has advantages where communication between developers and users is more intensive and better (Agustine Bacsafra & Mustika Kusumawardani, 2022). At the research stage, the prototyping model is an information system development method by developing a prototype to assist in getting an initial picture of the system to be created.

The stages of system development begin with the process of determining system requirements followed by system design, prototype creation, prototype evaluation and prototype modification (Hidayat et al., 2023) .
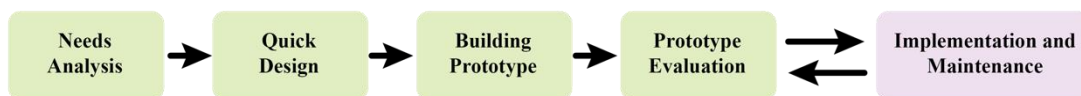

Fig. 1: Research Stages

Needs Analysis (Analisis Kebutuhan)

In the needs analysis, the author collects data from the results of interviews and initial surveys regarding the Towilfiets information to be created, to meet user needs including a user-friendly interface and displaying complete Towilfiets information in Yogyakarta.

Quick Design (Desain Cepat)

From the results of data collection at the beginning get an initial picture of the system to be created. In this study there is a use case diagram used in software modeling and systems engineering to describe the interaction between

* Corresponding author

user actors or external systems with the system being studied or developed. The following Use Case Diagram Explore Towilfiets is addressed in Figure 02.
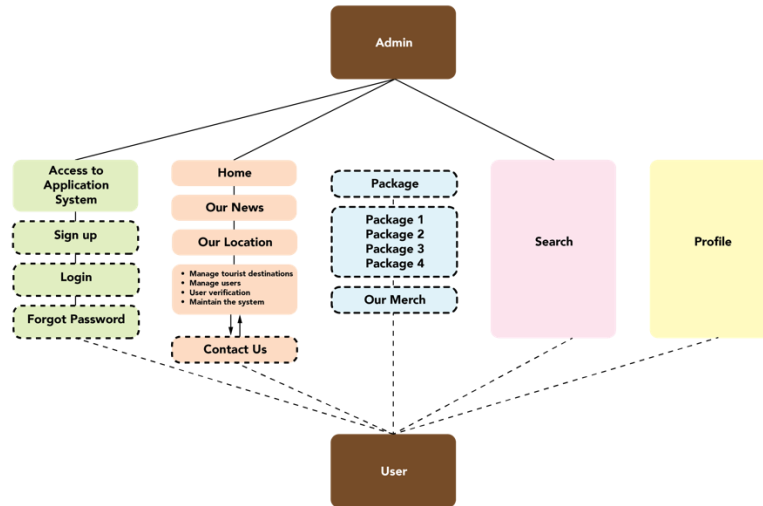

Fig. 2: Use Case Diagram Explore

Building Prototype (Pembuatan Prototype)
After obtaining the results of the system design to be made, the prototype of the information system will be built using figma software.

Initial User Evaluation (Evaluasi Prototype)
The prototype that has been made is then evaluated to find out feedback from users in helping to improve the design before the actual application is made, such as conducting a questionnaire to users which will later be modified to make improvements and development of the design made.

Implementation and Maintenance (Implementasi dan Perawatan)
Implementation is the last phase of the application design. In making a tourism application system using a prototype of the stages that have been passed, later the system will be made by the programmer into a functioning application. The system that has been created will later be maintained including repairs or updates to fix bugs and improve features to provide a good user experience.

Variables or objects as data sources used in this research are through in-depth interviews with the owner of the tourist attractions, namely Muntowil and Mr. Destha Titi Raharjana (as a teacher, practitioner in the field of tourism and culture at the Center for Tourism Studies at Gadjah Mada University. The limitations in the selection of this research is user interface design for making Towilfiets mobile prototype apps. The criteria for respondents who entered this study are:

Male and Female (17 - 35 years old)

Towilfiets visitors

Owner of Towilfiets, Mr. Muntowil

Lecturer, practitioner in the field of tourism and culture at the Center for Tourism Studies, Gadjah Mada University, namely Mr. Destha Titi Raharjana

The number of participants in this survey were:
2 (two) main respondent who experienced this phenomenon.
18 (eighteen) supporting respondents to determine the saturation of the phenomenon so that it can be known whether the entire essence of the experience in the phenomenon has been explored.
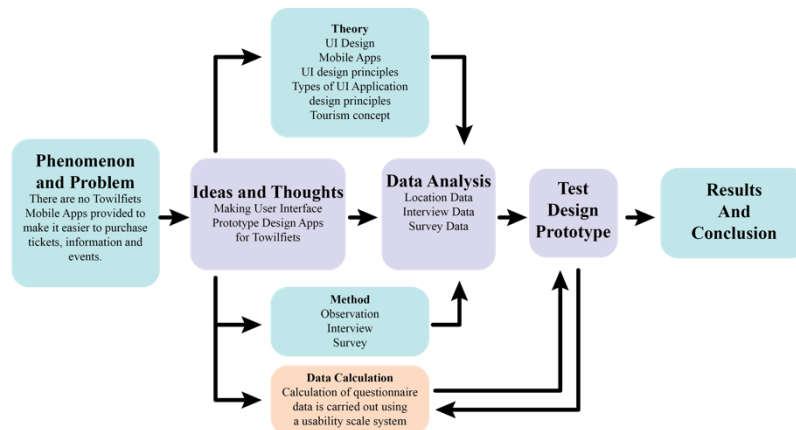
 * Corresponding author

Fig. 3: Research Instrument Flow

The results of the researcher's interview with Mr. Muntowil as the owner of Towilfiets:

Fig. 4. The author conducting an in-depth interview.

The author conducted an online interview with Mr. Muntowil as the owner of Towilfiets.
Towilfiets digitalization through its own digital application:
"I would definitely welcome the creation of an application called Towilfiets Apps, this also makes me have to learn how far technology has come, and of course, not to be arrogant, Towilfiets is already known by many foreign tourists, which will make it easier to introduce this application in the future, besides that my acculturation as a baby boomer generation and generation Z will also be increasingly bound. (Muntowil)"
From the aspect of the need for digital applications. Aspects of the importance of the need for digital applications for Towilfiets special interest tourism. **The most important thing:** "Digitalization is very important, to be honest, I need young people like Mas Arief to gather a team to help me in the digital context, whether it can be in the form of applications or in the form of making vlogs on Youtube and Instagram social media, because I have many limitations and must be ready to organize myself in segmented managerial ... Consciously or unconsciously we have to face the times to be able to invest in the next generation. (Muntowil)"

The results of the researcher's interview with Mr. Destha Titi Raharjana as lecturer, practitioner in the field of tourism and culture at the Center for Tourism Studies, Gadjah Mada University:

* Corresponding author

Fig. 5. The author conducting an in-depth interview.

The author conducted an online interview with Mr. Destha Titi Raharjana as lecturer, practitioner in the field of tourism and culture at the Center for Tourism Studies, Gadjah Mada University

Linkage of app design to promotion:
"it is worth noting whether Towil has thought about promotion for the need for the app.... It is also necessary to have a social fund if needed, profit or profit is also seen for the poor group there, this should be considered, is there profit sharing in the location used? Is it approved by the village area? If I see the branding that Towil raised about Towilfiets is very good, which is accommodating the onthel bicycle community for tourism in the Bantar Village area, Kulon Progo. (Mr. Destha)"

The importance of application design. This aspect must also be seen internally, and the region also needs to be discussed with the government to facilitate how this application will be made in the future, for whom and what is there. **The most important thing:** "Pay attention to spot areas and real activities need to be sold or told, and there are other people who are in control of the area. To strengthen branding and make Towilfiets not only an application but also a pilot project concept for other villages, Mas Arief needs to see the relevance of Towil whether it can be collaborated with Desa Wisata around Yogya and beyond. To be seen, it is necessary to prepare a support system in Towilfiets, namely by creating a small management there. Do not let the people around there become spectators, the point is that the people there must also be involved (Mr. Destha)"

The Towilfiets prototype user interface design test was carried out by distributing questionnaires to 20 respondents with an age range of 17-35 years, and at the same time distributing the Towilfiets prototype user interface design link. This test was carried out with the System Usability Scale or SUS. System Usability Scale is a measurement tool that can be used to measure the usability level of a system (Zahra Sharfina; Harry Budi Santoso, 2016).

This method helps researchers understand the extent to which the prototype meets user needs and get feedback for design improvements. The SUS questionnaire assessment was conducted after testing the prototype. This research involves 5 functions that will be tested. Respondents will be asked to perform several tasks based on predefined scenarios for each function. This method helps researchers understand the extent to which the prototype meets user needs and get feedback for design improvements (Andini et al., 2023). The SUS has 10 questions and 5 answer options. The answer options range from strongly disagree to strongly agree. SUS has a minimum score of 0 and a maximum score of 100. The following 10 questions from the System Usability Scale (SUS):

Table 1
Questionnaire questions used in System Usability Scale (SUS)

No	Question
Q1	I think I will use this system again
Q2	I find this system complicated to use
Q3	I find this system easy to use
Q4	I need help from other people or technicians in using this system
Q5	I feel that these system features work as they should

 * Corresponding author

Q6	I feel there are many things that are inconsistent (not harmonious in this system)
Q7	I feel like others will figure out how to use this system quickly
Q8	I find this system confusing
Q9	I feel there are no obstacles in using this system
Q10	I need to get used to it first before using this system

As explained in table 1, the SUS has 10 questions and then there are 5 indicator answer choices. Starting from strongly disagree, disagree, unsure, agree, and strongly agree. The score for each answer starts from 1 to 5. Below are the answer choices and their scores.

Table 2
Choice of 5 answers as an internal indicator System Usability Scale (SUS)

Answer	Score
Strongly Disagree (STS)	1
Disagree (TS)	2
Undecided (RG)	3
Agree (S)	4
Strongly Agree (SS)	5

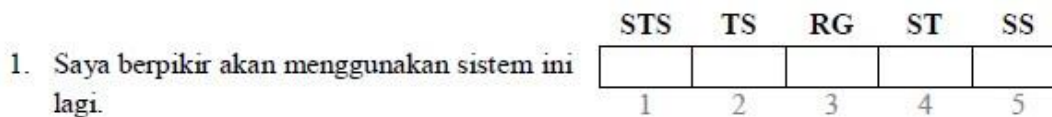|	STS	TS	RG	ST	SS
1. Saya berpikir akan menggunakan sistem ini lagi.					
	1	2	3	4	5

Fig.6: Examples of SUS questions and answer choices

Table 3
Data from 20 respondents in the questionnaire

Name	Sex/Gender	Age	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Respondent 1	Men/Male	18	3	2	4	1	4	2	3	2	9	3
Respondent 2	Men/Male	31	5	3	3	2	4	2	5	3	4	3
Respondent 3	Men/Male	33	4	3	3	4	4	2	3	2	3	4
Respondent 4	Women/Females	19	4	4	4	1	4	2	4	2	4	3
Respondent 5	Men/Male	19	4	3	4	2	4	3	5	2	4	3
Respondent 6	Women/Females	19	5	2	5	2	5	2	4	2	5	2
Respondent 7	Men/Male	28	5	2	5	2	5	1	5	1	2	2
Respondent 8	Men/Male	18	4	4	4	3	3	4	4	4	5	4
Respondent 9	Men/Male	30	5	3	3	3	5	1	4	2	5	1
Respondent 10	Women/Females	25	3	3	3	3	3	2	3	3	3	3
Respondent 11	Men/Male	21	4	2	4	2	4	3	4	2	4	2
Respondent 12	Men/Male	22	4	2	4	2	4	3	4	2	4	2
Respondent 13	Men/Male	23	5	1	5	1	5	1	5	1	4	1
Respondent 14	Men/Male	24	4	2	4	2	5	2	5	2	4	2
Respondent 15	Women/Females	25	4	2	4	2	4	2	4	2	4	2
Respondent 16	Men/Male	21	5	1	5	1	4	1	4	1	4	1

* Corresponding author

Respondent 17	Women/Females	22	4	2	4	2	5	2	5	2	4	2
Respondent 18	Men/Male	23	5	2	5	2	5	1	5	2	4	2
Respondent 19	Men/Male	24	3	3	3	3	4	2	4	3	4	3
Respondent 20	Women/Females	25	5	2	5	2	4	2	4	2	4	2

DISCUSSIONS

This research focuses on analyzing the creation of a user interface design prototype for the Towilfiets application, a platform that promotes onthel bicycle special interest tourism. The research process involved in-depth interviews and testing through questionnaires and prototype trials.

The analysis resulted in several key findings, including the main purpose of the application, user mapping, competition research, user needs, information structure, user personas, wireframing, prototyping, user testing, iteration, and improvement, and finalizing the design. The author also outlined general requirements for the prototype user interface design, including a visually attractive theme, intuitive navigation, relevant information presentation, and search and filter features. The goal is to create a satisfying user experience for local and foreign tourists interested in onthel bicycle tourism.
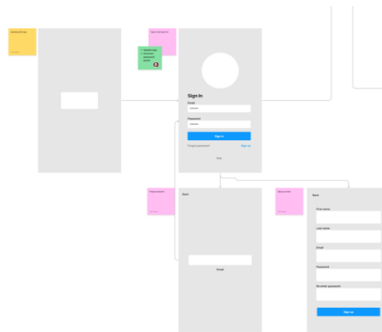

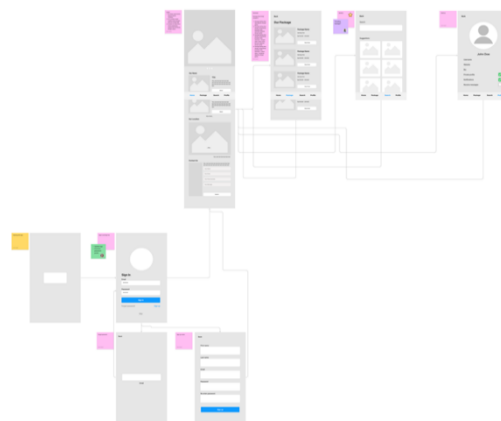Fig. 7: Wireframe Design for UI Design Registration Process

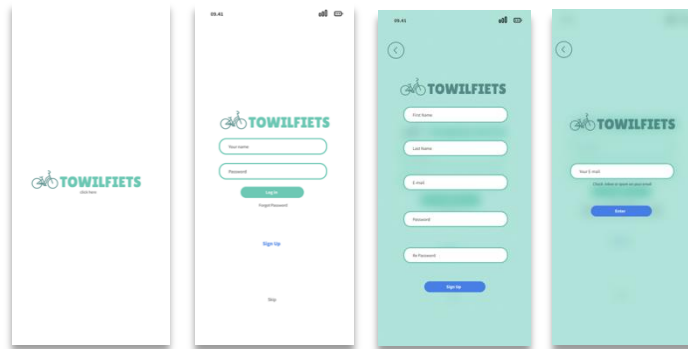Fig. 8: Design appearance of the entire wireframe

* Corresponding author

Fig. 9: Open, Login, display design Registration, Forget Passwordand Sign Up
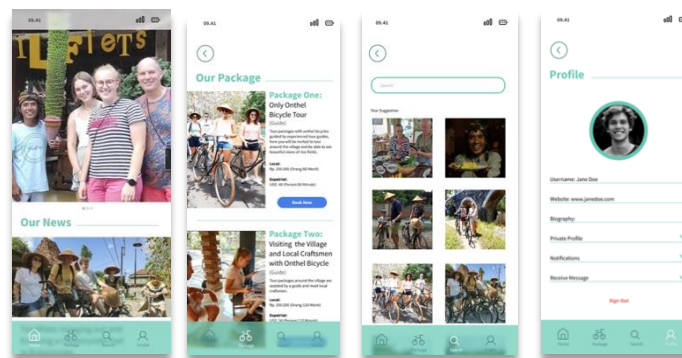

Fig. 10: Design of the Home, Our Package, Search, and Profile displays

Prototype Test Result

After collecting data from respondents, the data is then calculated. In how to use the System Usability Scale (SUS), there are several rules for calculating the SUS score. The following are the rules for calculating scores on the questionnaire:

1. For every odd numbered question, the score for each question obtained from the user's score will be reduced by 1.
2. For every even numbered question, the final score is obtained from 5 points minus the question score obtained from the user.
3. The SUS score is obtained from the sum of the scores for each question which is then multiplied by 2.5.

Score calculation rules apply to 1 respondent. For further calculations, the SUS score of each respondent is sought for the average score by adding up all the scores and dividing by the number of respondents. The following is the formula for calculating the sus score, equation (1) is:

$$\overline{X} = \frac{\sum x}{n} \quad (1)$$

After you input data like on table 3, then add up the scores from each of the 20 respondents starting from Q1 to Q10. If you have got the amount, the amount is multiplied by 2.5 to get the final value. Like table 4

 * Corresponding author

Table 4
Data from 20 respondents in the questionnaire has been process

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	AMOUNT	MARK (TOTAL X 2.5)
2	3	3	4	3	3	2	3	8	2	33	83
4	2	2	3	3	3	4	2	3	2	28	70
3	2	2	1	3	3	2	3	2	1	22	55
3	1	3	4	3	3	3	3	3	2	28	70
3	2	3	3	3	2	4	3	3	2	28	70
4	3	4	3	4	3	3	3	4	3	34	85
4	3	4	3	4	4	4	4	1	3	34	85
3	1	3	2	2	1	3	1	4	1	21	53
4	2	2	2	4	4	3	3	4	4	32	80
2	2	2	2	2	3	2	2	2	2	21	53
3	3	3	3	3	2	3	3	3	3	29	73
3	3	3	3	3	2	3	3	3	3	29	73
4	4	4	4	4	4	4	4	3	4	39	98
3	3	3	3	4	3	4	3	3	3	32	80
3	3	3	3	3	3	3	3	3	3	30	75
4	4	4	4	3	4	3	4	3	4	37	93
3	3	3	3	4	3	4	3	3	3	32	80
4	3	4	3	4	4	4	3	3	3	35	88
2	2	2	2	3	3	3	2	3	2	24	60
4	3	4	3	3	3	3	3	3	3	32	80
FINAL RESULT SCORE											**75**

The conclusion from using the System Usability Scale (SUS) is that after calculating it, the average SUS score of all respondents is obtained. The score is then adjusted to the SUS assessment. Which category do the test results with the average score that have been obtained fall into?

The average SUS score from many studies is 75, so if the SUS score is above 75 it will be considered above average and a score below 75 is below average. If the score you get is below 75, it means there is a usability problem and needs improvement. However, the final conclusion can also be determined through an assessment as in the following picture:
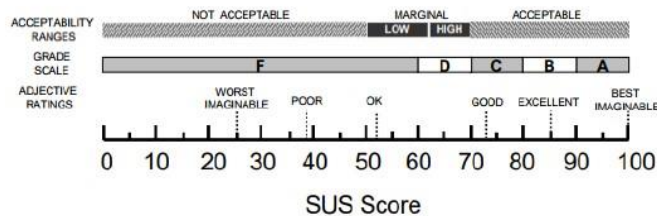

Fig. 11: The score indicator is the result of calculating data with *System Usability Scale*

* Corresponding author

From the data in table 4 which gets a score of 75, the score is in the GOOD category with a grade scale of C. This means that in terms of usability, based on this data, it gets an acceptable or ACCEPTABLE rating.

https://rb.gy/ib75g7

Fig. 12: Scan or click link the data to find out the design user interface design prototype Towilfiets, which the author has created in Figma. Open it with a desktop computer or laptop.

5. CONCLUSION

Research on design user interface design prototype Towilfiets can involve several relevant aspects. Also, this study succeeded in developing a prototype user interface design application which aims to improve the onthel bicycle tourism experience in Towilfiets, Yogyakarta, Indonesia. Through a design approach that focuses on user needs and the unique characteristics of tourist destinations, this application offers features that can increase user engagement and provide relevant and useful information about onthel bicycle tourist attractions in the area. Initial evaluation shows that users are responding positively to the intuitive interface design and interactive features provided in the application. However, there are some areas that need improvement, such as improving the speed and responsiveness of the app. Overall, this research shows the potential of the application to enrich the onthel bike tourism experience in Towilfiets and the surrounding area, as well as providing a basis for further development and improvement in practical implementation. Suggestion obtained from the results of interviews with respondents after carrying out sampling testsuser interface design prototype Towilfiets. In addition to being useful for the next research project, the author provides directions to: **Expansion of Interactive Features:** Add interactive features that can increase user engagement, such as interactive maps with markers of related tourist locations, integration with social media platforms to share tourist experiences, or a feature for recommending onthel bicycle routes based on user preferences. **Performance Optimization:** Optimized application performance to ensure good responsiveness, especially when accessing information or navigation during bicycle trips. **Improved Security and Privacy:** Provide adequate security and privacy features to protect user data, including privacy settings for personal information and secure handling of in-app payment transactions. **Complete Information Inclusion:** Ensure that information about onthel bicycle tourism destinations in Towilfiets and its surroundings is complete and accurate, including place descriptions, pictures, operational schedules and contact information. **Community Engagement:** Involve local communities and potential users in further application development through participatory approaches, such as holding user testing sessions, open consultations, or surveys to obtain direct feedback from those involved. **Multilingual Adaptation:** If necessary, consider providing the application in several languages, especially languages commonly used by foreign visitors interested in onthel bike tourism in the area. **Continued Evaluation:** Conduct follow-up evaluation of the application prototype using broader methods and a larger sample to validate initial findings and identify areas requiring further improvement. These suggestions aim to improve the quality and attractiveness of the user interface design application being developed, as well as ensuring that the application can meet the needs and expectations of users who have the potential to become users of the onthel bicycle tourism application in Towilfiets, Yogyakarta, Indonesia.

6. REFERENCES

Agustine Bacsafra, M., & Mustika Kusumawardani, D. (2022). Pengembangan Sistem Informasi Badan Pusat Statistik Kabupaten Kuningan Berbasis Android Dengan Metode Prototype. *Jurnal Sains Komputer & Informatika (J-SAKTI*, *6*(1), 379–390.

Andini, Yusup, D., & Susilawati. (2023). Penerapan System Usability Scale Dalam Menganalisi Ui/Ux Pada Website Asuransi Mitra (Studi Kasus:Website Pasarpolis). *Journal Of Social Science Research*, *3*(4), 149–163.

* Corresponding author

Badan Pusat Statistik. (n.d.). *Perkembangan Pariwisata Data Agustus 2022*. BPS.Com. https://www.bps.go.id/id/infographic?id=784

Badan Pusat Statistik. (2023). *Perkembangan Pariwisata D.I Yogyakarta 2023*. BPS.Com.

Creswell, J. (2010). Research Design Pendekatan Kualitatif, Kuantitatif dan Mixed. In *Research Design Pendekatan Kualitatif, Kuantitatif dan Mixed*. Pustaka Pelajar, Yogyakarta.

Hidayat, F., Huda, M., Rohmah, K. H., & Bangsa, U. P. (2023). *Perancangan User Interface Aplikasi Mobile Explore Pariwisata Kabupaten*. *01*(01), 28–39. https://doi.org/10.32639/tiij.v1i1.461

Muhamad, D., Ulfalah, N., Hikmawan, R., & Indonesia, P. (2022). Implementasi Perancangan Desain UI/UX pada Sistem Informasi Berbasis Website SMPN 3 Pacet. In *Conference Series Journal* (Vol. 1, Issue 2, p. 1).

Novianti, S. (2023). *Minat Wisata Meningkat, Sektor Pariwisata Jadi Kunci Pertumbuhan Ekonomi Digital di Indonesia*. Kompas.Com.

Nurhindarto, A., Santoso, D. R., & Hidayat, E. Y. (2020). Rancang Bangun Aplikasi Sistem Informasi Geografis Objek Wisata dan Kuliner di Kabupaten Kudus Berbasis Smartphone Android. *JOINS (Journal of Information System)*, *5*(2), 288–299. https://doi.org/10.33633/joins.v5i2.4297

Pramono, A. Y. (2023). *Towilfiets di Kulonprogo Jadi Lokasi Transit Wisata Favorit Orang Eropa*. Jogjapolitan.Harianjogja.Com.

Prastika, Y., & Sunarta, I. N. (2018). Studi Perkembangan Pariwisata Dan Pengaruhnya Pada Lingkungan Fisik Di Pantai Balangan, Desa Ungasan, Jimbaran. *Jurnal Destinasi Pariwisata*, *6*(1), 110. https://doi.org/10.24843/jdepar.2018.v06.i01.p16

Sendari, A. A. (2023). *31 Wisata Kulon Progo yang Sudah Buka selama PPKM Level 2 di DIY*. Liputan6.Com.

Triwardani, R., Ardhanariswari, K. A., Komunikasi, I., Pembangunan, U., & Veteran, N. (2016). Kulonprogo melalui Desain Komunikasi Visual. *Nirmana*, *16*(1), 40–49. https://doi.org/10.9744/nirmana.16.1.40-49

Wiwesa, N. R. (2021). User Inteface dan User Experience untuk Mengelola Kepuasaan Pelanggan. Jurnal Sosial Humaniora Terapan,. *Jurnal Sosial Humaniora*.

Yulianto, A. (2018). *Strategi Pengembangan Pemasaran Pariwisata "Towilfiets" Dalam Melestarikan Budaya Kearifan Lokal di Dusun Bantar, Desa Banguncipto, Kec. Sentolo, Kab. Kulon Progo*. Institut Seni Indonesia Yogyakarta.

Yulianto, A. (2023). Creation of UI Design Prototype Mobile App Textile Museum to Increase The Number of Visitors, Tourism Marketing and Brand Awareness. *Jurnal Syntax Admiration*, *4*(7 SE-), 873–893. https://doi.org/10.46799/jsa.v4i7.655

Zahra Sharfina; Harry Budi Santoso. (2016). An Indonesian adaptation of the System Usability Scale (SUS). *Title of Host Publication2016 International Conference on Advanced Computer Science and Information Systems, ICACSIS 2016*, 145–148.

* Corresponding author