

Analyzing User Experience In The M-TIX Application Using The User Experience Questionnaire Method

Rayhan Ananda Hafiz Pradipta, Hasna Nabillah Widiani, Dimas Akbar Tama, Anka Luffi Ramdani, Kinaya Khairunnisa Komariansyah, Muhammad Ilham Nurfajri, Irma Rasita Gloria Barus, Amata Fami

Software Engineering Technology, Institut Pertanian Bogor, Indonesia

rayhan_ananda@apps.ipb.ac.id, hasnawidiani@apps.ipb.ac.id, dimasakbarakbar@apps.ipb.ac.id,
anka_luffi@apps.ipb.ac.id, khairunnisakinaya@apps.ipb.ac.id, ilhamnurafajri@apps.ipb.ac.id
[,irmabarus@apps.ipb.ac.id](mailto:irmabarus@apps.ipb.ac.id), amatafami@apps.ipb.ac.id

Address: IPB Campus, Jl. Raya Dramaga, Babakan, District. Dramaga, Bogor Regency, West Java 16680

Korespondensi Penulis : rayhan_ananda@apps.ipb.ac.id

Abstract. *The utilization of mobile applications in the service sector has experienced significant growth, fueled by increased access to the internet and the use of smartphones. The M-TIX app, which provides online movie ticket booking services, is one example of an app that has become an important part of movie fans' routines. Despite its popularity, users have reported various issues related to usability and overall user satisfaction. In this study, we focus on the user experience of the M-TIX app by using the User Experience Questionnaire (UEQ) to identify the strengths and weaknesses of the user experience aspects. Through a structured qualitative approach, the UEQ enables an in-depth evaluation of six key dimensions of user experience, namely Attractiveness, Perspicuity, Efficiency, Dependability, Stimulation, and Novelty. The study involved respondents predominantly aged between 17 to 21 years old, with the largest group being 20 years old (15 respondents), and most of them (26 respondents) were students. The results of this study are expected to provide valuable recommendations for improving the design and functionality of the M-TIX application, as well as increasing the understanding of the relationship between users' characteristics and their perceptions of user experience in the context of online movie ticketing applications. This research aims to address the existing problems and enhance user satisfaction by providing actionable insights.*

Keywords : Mobile Application; User Experience Questionnaire (UEQ); Aplikasi mobile; M-Tix; User Experience; Online Ticket Booking

INTRODUCTION

In today's digital age, the existence of mobile apps has become an essential part of everyday life. M-TIX, as an app that facilitates online movie ticket booking, has become an essential tool for movie buffs to enjoy an easy and convenient viewing experience [1]. The use of mobile applications for services such as M-TIX is experiencing rapid growth, mainly due to the increasing penetration of the internet and smartphones. Therefore, understanding the user experience of using such apps is crucial. So far, research related to the M-TIX app has not explored much in this regard, especially from a user experience perspective [2].

Received: May 31, 2024; Accepted: June 06, 2024; Published: August 30, 2024;

* Rayhan Ananda Hafiz Pradipta, rayhan_ananda@apps.ipb.ac.id

As the results of the study show that almost all respondents, as many as 98%, have known about the M-TIX and TIX ID applications [3]. All respondents, which represents a total of 100%, stated that the M-TIX and TIX ID applications are very useful to use. Furthermore, in terms of the effectiveness aspect, all respondents also agreed, with a 100% agreement rate, that the M-TIX and TIX ID applications are effective for use in purchasing movie tickets. Thus, the author can conclude that according to the students, the M-TIX and TIX ID applications are proven effective to simplify the process of purchasing tickets at the cinema.

A number of studies have been conducted on the functional aspects of ticket booking applications, including transaction speed, payment security, and intuitive user interface [4][5]. However, little research has focused directly on measuring and analyzing user experience, specifically using the User Experience Questionnaire (UEQ) method. Previous research has focused more on the technical aspects rather than the emotional and perceptual aspects of users, which are also important in determining the success of an application. This gap provides an opportunity to further investigate how the M-TIX application is assessed in terms of user experience. The absence of in-depth studies addressing the user experience of the M-TIX app with qualitative methods such as UEQ indicates a gap in the existing literature. The relationship between application features and user satisfaction with these features has not been well measured. The purpose of this study is to analyze and evaluate the user experience of the M-TIX application using the User Experience Questionnaire (UEQ) method[6]. This research aims to identify the strengths and weaknesses of the user experience aspects and provide recommendations for improving the design and functionality of the application. In addition, the relationship between user characteristics and their perceptions of the M-TIX user experience will also be explored.

RESEARCH METHOD

To understand the user experience of the M-TIX app in depth, we used to use the User Experience Questionnaire (UEQ) method, a qualitative approach that has been structured to assess user experience. UEQ includes six key dimensions that are recognized as critical components in any user-app interaction, consisting of Attractiveness, Perspicuity, Efficiency, Dependability, Stimulation, and Novelty. Through UEQ, each category was explored with a series of specific questions that are rated by respondents [7]. The assessment method used is a descriptive qualitative approach with a Likert scale, which allows users to express the extent

to which they agree or disagree with a given statement, providing a broad and deep insight into the overall user experience. According to Sugiyono, descriptive qualitative research methods are research based on the philosophy of postpositivism used to research on natural object conditions where the researcher is the key instrument [8].

There are aspects of the questionnaire with the theory behind the User Experience Questionnaire (UEQ) measuring factors such as attractiveness, efficiency, clarity, dependability, and stimulation [9].

- Attractiveness refers to the overall appeal of the app. This can be directly linked to the aspects of “Design Attractiveness” and “Visual Appearance Aesthetics,” i.e. whether the design of the M-TIX app is attractive and how users rate the visual appearance of the M-TIX app such as colors, fonts, and layout.
- Efficiency measures how quickly and effectively users can complete tasks using the app. This relates to “Efficiency,” which is whether users feel that the M-TIX app helps users quickly and efficiently make ticket bookings, and “Ease of Finding Features,” which asks how easy it is to find the features they are looking for in the M-TIX app.
- Clarity is about how easy it is to understand how to use the app on first use. This corresponds to “Perspicuity,” which is how easy it is for users to understand the instructions or information provided in the M-TIX app.
- Dependability involves the usability and predictability of the app. This includes “Transaction Security,” which asks how secure users feel when making transactions within the M-TIX app, and “App Stability,” which is how often users experience problems or bugs when using the M-TIX app.
- Stimulation measures how interesting and stimulating the application is to use, which can be related to “Navigation,” which is how comfortable users are with navigation in the M-TIX application.

Understanding how aspects of the M-TIX app affect the overall user experience according to the UEQ methodology is important.

DISCUSSION

In discussing the research results contained in the questionnaire, the author focuses on the demographic distribution of the respondents based on age and occupation. The age group of the respondents varied greatly, but predominantly fell within the range of 17 to 21 years old. Specifically, there was one person each who was 17 and 18 years old. There were seven 19-year-old respondents, while the most significant number was recorded in the 20-year-old age group with 15 people. Finally, within this age group, there were also four people aged 21. Regarding the occupation of the respondents, the data shows an interesting picture where most of them, 26 to be exact, have a status as students. In addition, there was one person who was still a student, and there was also one respondent with an undefined occupation within the pre-defined categories. This offers a perspective on how this research is highly relevant and oriented towards young people, especially students, in understanding and interpreting the focus of the research.

A. Attractiveness

Attractiveness basically refers to the overall charm or allure of an app. This can be directly linked to the design-attractiveness as well as the aesthetics of the visual appearance, which includes whether the design of the M-TIX app is attractive and how users rate the visual appearance of the M-TIX app itself-including the colors, fonts, and layouts used.

Attractiveness					
<i>Question</i>	<i>Likert Scale</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
User assessment of the visual appearance of the M-TIX application such as colors, fonts, and layout	1	1	5	12	9

Gambar. 1. Attractiveness

In relation to this assessment, one user gave the lowest score of 1, and another user gave a score of 2, indicating dissatisfaction with the visual aesthetics of the app. Meanwhile, five users gave a neutral assessment with a score of 3, indicating a moderate view of the display design. Furthermore, twelve users gave a positive assessment with a score of 4 and another nine users expressed top satisfaction by giving the highest score of 5. This illustrates that most users found the visual appearance of the M-TIX app attractive, including aspects such as colors, fonts, and layout. Thus, it can be concluded that the M-TIX app successfully meets the visual aesthetic expectations of the majority of its users.

Attractiveness					
<i>Question</i>	<i>Likert Scale</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Does the display design of the M.TIX application appeal to you?	1	1	1	15	10

Gambar. 2. Attractiveness

Based on the data provided, it can be seen that the majority of users rated the appearance design of the M.TIX application as attractive. There was one user who gave the lowest score on the Likert scale of 1, and another who gave a score of 2, indicating that neither of them were particularly impressed with the app's design. Meanwhile, the majority of users, with twelve giving a score of 4 and nine giving the highest score of 5, indicated that they found the design of the M.TIX app moderately to highly attractive. This data confirms that most users are satisfied with the appearance design of the M.TIX app, indicating the success of the app in its visual aesthetic aspects.

B. Efficiency

In the efficiency aspect, the main focus is to measure how quickly and effectively users can complete their desired tasks through the app. This includes two main parts: first, how efficiently the M-TIX app helps users in performing the ticket booking process quickly

and efficiently; second, how easy it is for users to search and find the features they need within the M-TIX app.

Attractiveness					
<i>Question</i>	<i>Likert Scale</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Users feel that the M-TIX application helps Users quickly and efficiently make ticket reservations	0	0	2	11	15

Gambar. 3.Efficiency

Based on measurements using a Likert scale, it was found that no users gave the lowest score (1 or 2) regarding the efficiency of the app in helping them make ticket bookings, with 2 users giving a neutral score (3), 11 users feeling efficient with a score of (4), and 15 users feeling very efficient with the highest score (5).

Attractiveness					
<i>Question</i>	<i>Likert Scale</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
How easy it is to find the features you are looking for in the M-TIX app	0	1	1	15	11

Gambar. 4.Efficiency

Regarding the ease of finding features within the app, no users gave the lowest score (1), only one user gave a score (2), another with a neutral score (3), and the majority of users found it easy to find the features they were looking for, with 15 users giving a score (4) and 11 users with the highest score (5). Overall, this feedback shows that users rated the

M-TIX app as having a high level of efficiency both in terms of assisting ticket bookings and in the ease of finding features.

C. Perspicuity

Perspicuity, or ease of understanding, refers to how easily users can understand how to use the M-TIX app the first time they use it. This is very important as it can affect user satisfaction and comfort during interactions with the app.

Attractiveness					
<i>Question</i>	<i>Likert Scale</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
How easily the User understands the instructions or information provided in the M-TIX application.	0	0	6	8	14

Gambar. 5. Contoh keterangan gambar. (*Caption Gambar*)

In the context of the M-TIX app, the data generated through the application of the Likert scale showed that no user gave a score of 1 or 2, indicating no difficulty perceived by users in understanding the app on first use. A total of six users felt neutral by giving a score of 3. Furthermore, eight users gave a score of 4 and fourteen users gave the highest score of 5, indicating that they found the M-TIX app very easy to understand. This overall data shows that the M-TIX app is rated as having high perspicuity, making it easy for new users to understand and use the features available.

D. Dependability

Dependability, or the reliability and predictability of an application, covers various aspects including transaction security and application stability. In the context of the M-TIX app, these two factors are critical to the user experience.

Attractiveness					
<i>Question</i>	<i>Likert Scale</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
How safe the User feels when making transactions in the M-TIX application	0	0	1	18	9

Gambar. 6. Dependability

Regarding “Transaction Security”, the data shows that users feel secure when making transactions using the M-TIX app. No user gave a score of 1 or 2, indicating that there is no significant dissatisfaction regarding transaction security. Only one user felt neutral by giving a score of 3. A total of eighteen users gave a score of 4 and nine users gave the highest score, 5, signifying a high level of confidence in the security of transactions within the app.

Attractiveness					
<i>Question</i>	<i>Likert Scale</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
How often do Users experience problems or bugs when using the M-TIX application	5	7	6	7	3

Gambar. 7. Dependability

On the other hand, “App Stability” was an issue of concern. Five users experienced serious problems or bugs by giving a score of 1, seven users gave a score of 2, and six users felt neutral with a score of 3, indicating that they faced a number of problems while using the app. While there were seven users who gave a score of 4 and three users who were very satisfied with the

stability of the app by giving a score of 5, there is still room for improvement in terms of the stability of the M-TIX app. Overall, while the transaction security of the M-TIX app is rated high, the stability of the app is an important area for improvement. Listening to feedback from users and continuously improving the stability of the app will help in improving the overall dependability of the app.

D. Stimulation

Stimulation measures how engaging and stimulating Stimulation is an important aspect of the app user experience, covering how engaging and stimulating the app is when used. For the M-TIX app, “Navigation” and “Speed in Loading Content” are two factors that can give an idea of user stimulation.

Attractiveness					
<i>Question</i>	<i>Likert Scale</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
How comfortable is the User with navigation in the M-TIX application.	0	0	4	15	9

Gambar. 8.Stimulation

Based on the data, no users gave a score of 1 or 2 for the navigation within the M-TIX app, indicating that users generally did not have any major issues with the navigation. Four users felt neutral by giving a score of 3, indicating that the navigation could be quite intuitive although there may still be room for improvement. Eleven users gave a score of 4, and nine users gave a score of 5, indicating that the majority of users were comfortable with the navigation within the app. This indicates that the M-TIX app was successful in creating a navigation that stimulates and facilitates users.

Attractiveness					
<i>Question</i>	<i>Likert Scale</i>				
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
How satisfied are you with the speed of the M.TIX application when loading content?	0	1	3	14	10

Gambar. 9. Stimulation

Regarding the speed of the M.TIX app when loading content, only one user felt that the speed of loading content was unsatisfactory by giving a score of 2. Three users felt neutral by giving a score of 3, indicating that the loading speed may not be consistent or may be fast enough for some users but there is still room for improvement. Fourteen users gave a score of 4, and ten users gave the highest score of 5, indicating that most users are satisfied with the speed of loading content in the app. This is a positive indicator that the app provides a smooth and responsive experience, adding an element of stimulation for users.

CONCLUSION

This research explores the user experience of the M-TIX application by applying the User Experience Questionnaire (UEQ) method which measures various aspects of user interaction with the application. The results showed that the M-TIX app stood out in the Efficiency and Perspicuity dimensions, with users generally finding the app efficient for completing tasks and easy to understand even on first use. However, the results also show room for improvement in Dependability and Stimulation. Issues related to app stability and stimulating user experience require special attention for further improvement. The main strengths of the M-TIX application, namely the attractive design and the ability to facilitate ticket booking quickly and efficiently, reflect the fulfillment of the core needs of ticketing application users. On the other hand, technical issues such as bugs and transaction security are aspects that need to be addressed to increase user trust and satisfaction. Users also expect a more stimulating

experience, which could be integrated through new features or improved navigation and interactivity of the app. Recommendations for improvement include enhancing the stability of the application, improving the security aspects of transactions, and adding elements that stimulate users to increase engagement with the application. By listening to user feedback and perceptions, M-TIX has the potential to continue to evolve into an online movie ticket booking application that not only meets, but also exceeds user expectations.

REFERENCE

- D. S. Adhilarso, P. Utari, and S. Hastjarjo, "The Impact of Digital Technology to Change People's Behavior in Using the Media," *Digit. Press Soc. Sci. Humanit.*, vol. 2, no. 2018, p. 00005, 2019, doi: 10.29037/digitalpress.42256.
- F. B. Andhika, I. Purnamasari, and A. Rizal, "Rancang Ulang User Interface dan User Experience Aplikasi M-Tix dengan Metode Design Thinking," *J. Pendidik. Tambusai*, vol. 7, no. 2, p. 385, 2023, doi: 10.1097/00004424-199104000-00021.
- F. N. Ramadhayanti, Mulyadi, and E. Rasywir, "Analisis Kepuasan Pengguna Aplikasi TIX ID Di Kota Jambi Menggunakan Metode EUCS," *J. Ilm. Media Sisfo*, vol. 17, no. 1, pp. 143–151, 2023, doi: 10.33998/mediasisfo.2023.17.1.792.
- I. Utama and A. P. Mahasanti, "Digital Authenticity of Trade Agreements in the Era of Globalization," ... *Bus. Law Local Wisdom ...*, vol. 605, no. Icblt, pp. 226–229, 2021, [Online]. Available: <https://www.atlantis-press.com/proceedings/icblt-21/125965351%0Ahttps://www.atlantis-press.com/article/125965351.pdf>
- M. Rohandi, "An User Experience Analysis of UNG E-Learning Using User Experience Questionnaire Tool," *Proc. 1st World Conf. Soc. Humanit. Res. (W-SHARE 2021)*, vol. 654, pp. 174–179, 2022, doi: 10.2991/assehr.k.220402.037.
- N. Fadhilah and S. H. Quranisari, "Efektivitas Penggunaan Aplikasi M-Tix Dan Tix Id Dalam Pembelian Tiket Bioskop Di Kalangan Mahasiswa," *Transekonomika Akuntansi, Bisnis dan Keuang.*, vol. 2, no. 5, pp. 153–162, 2022, doi: 10.55047/transekonomika.v2i5.178.
- S. R. Henim and R. P. Sari, "Evaluasi User Experience Sistem Informasi Akademik Mahasiswa pada Perguruan Tinggi Menggunakan User Experience Questionnaire," *J. Komput. Terap.*, vol. 6, no. 1, pp. 69–78, 2020, doi: 10.35143/jkt.v6i1.3582.
- S. Y. R. Marpaung and N. Nuraeni, "Evaluasi User Experience Website E-Learning My-Elnusa Menggunakan User Experience Questionnaire (UEQ)," *Swabumi*, vol. 11, no. 1, pp. 78–84, 2023, doi: 10.31294/swabumi.v11i1.15354.
- Y. X. Loh *et al.*, "The Factors and Challenges affecting Digital Economy in Malaysia," *Comb. Manag. Business, Innov. Educ. Soc. Sci.*, vol. 1, no. 1, pp. 1843–1849, 2021.