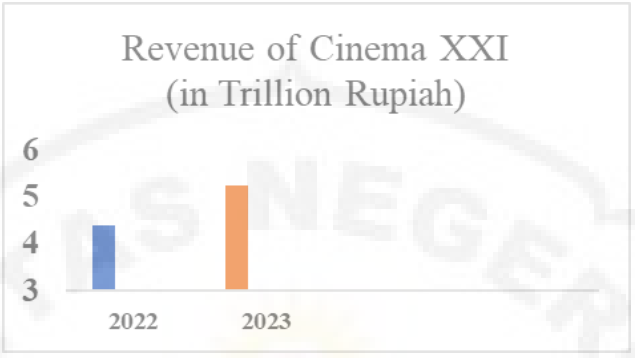
CHAPTER I
INTRODUCTION

1.1. Background of The Study

Nearly all companies have embraced technology as an essential component to support their needs. The convenience offered by technology can streamline their business processes and can be utilized to enhance the quality of their services. Mobile applications represent one significant advancement in technology that is widely utilized. Mobile ticketing services, for instance, facilitate users, enabling them to book cinema tickets via their smartphones anytime and anywhere (Andhika *et al*., 2023). According to the data reported by Gabungan Pengusaha Bioskop Seluruh Indonesia (GPBSI) in May 2022, there has been a significant growth in cinema screens over the past decade. Ten years ago, there were only about 800 cinema screens, whereas currently, the number of cinema screens in Indonesia has reached approximately 2,088. Of this total, around 65% are owned by XXI, with the remainder being shared among CGV, Cinepolis, and various independent cinema companies. Independent cinemas are predominantly distributed at the district or municipal level across Indonesia (Barus, 2022).

Cinema XXI operates under the umbrella of PT Nusantara Sejahtera Raya Tbk, the largest cinema group in Indonesia with 35 years of experience in the film exhibition industry. Cinema XXI is committed to consistently providing the best quality movie-watching experience and comfort for the Indonesian public. As of the end of September 2023, Cinema XXI has introduced 1,250 screens across 232 cinema locations spread across 56 cities throughout Indonesia. (21cineplex.com). Based on the data obtained, Cinema XXI garnered revenue of Rp. 5.2 trillion in 2023 (Muhammad, 2024). Here is the complete data:



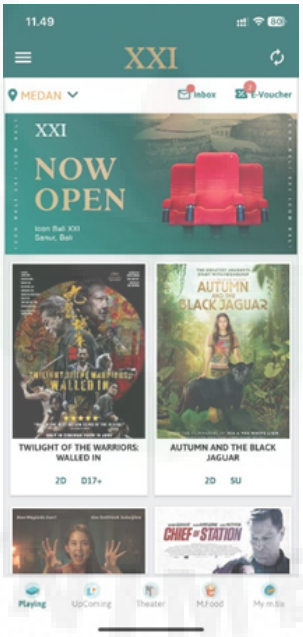
Source: Muhammad, 2024

Figure 1.1 Revenue of Cinema XXI

Based on the table above, it is evident that the company owning Cinema XXI, namely PT Nusantara Sejahtera Raya Tbk, generated revenue of Rp 5.23 trillion in 2023. This figure reflects an increase of 18.8% compared to the previous year. Approximately 60% of this publicly listed company's revenue, coded CNMA, stemmed from cinema ticket sales, totaling Rp3.14 trillion, marking a 16.3% increase year-on-year (yoy). Additionally, the food and beverage sector contributed Rp1.85 trillion in revenue, representing a substantial 29.3% increase yoy. However, revenue from advertising witnessed a decline of 24.6% yoy, amounting to Rp98.55 billion, while digital platform revenue decreased by 10% yoy to Rp105.63 billion. On the other hand, revenue from events and other sectors surged by 69.5% yoy, reaching Rp36.94 billion. Profit attributed to the parent entity amounted to Rp 687.76 billion in 2023, marking a significant 49.4% yoy growth. Throughout 2023, Cinema XXI has expanded its presence by opening 18 new locations, adding 75 screens in the same year (Muhammad, 2024).

Cinema XXI has almost monopolized the cinema screens across Indonesia and has subsequently launched an online cinema ticket booking application, namely the M.Tix app. The introduction of the M.Tix app aims to provide a more convenient and efficient ticket booking service for customers of XXI cinemas. With the M.Tix app in place, customers no longer need to endure long queues at the ticket counter to purchase and pay for tickets, thereby reducing the likelihood of missing out on tickets or encountering sold-out screenings. Based on the researcher's observations, the M.Tix app has garnered over 10 million downloads on both the Google Play Store and the App

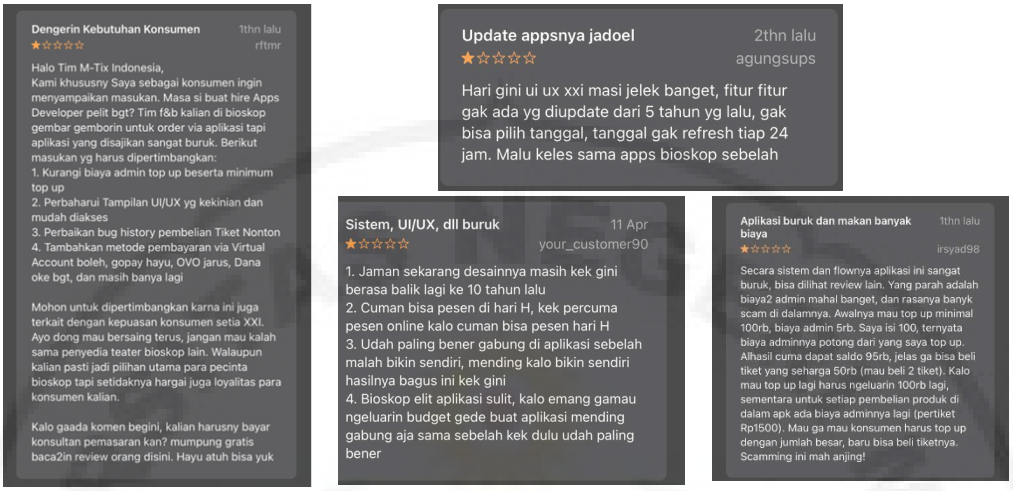
Store. The app has received a rating of 3.5 with 46.9 thousand reviews on the Google Play Store and a rating of 2.5 with 1.7 thousand reviews on the App Store. Some of the most common complaints from users of the M-Tix application include unappealing interface design, challenging user flow, and non-user-friendly UI layout. User interface encompasses not only the graphical interface on the screen but also all interactions that users have with a product and its services. The M.Tix application, however, has a user interface and experience that may not be efficient. This is evident in Figure 1.1 the main page of the M.Tix application, which appears outdated and not aligned with contemporary design standards.



Source: Nusantara Sejahtera Raya, 2024

Figure 1.2 Main Page of M.Tix Application

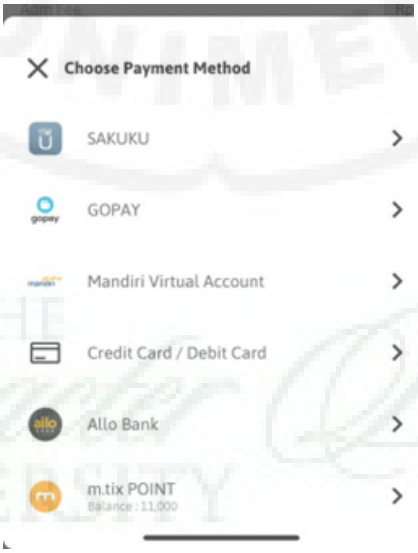
Based on the observations summarized by the researcher from the comments section in an app store, it is evident that users unanimously agree on the M-Tix application's lack of user-friendliness and its confusing navigation flow.



Source: Nusantara Sejahtera Raya, 2024

Figure 1.3 Users Complaint

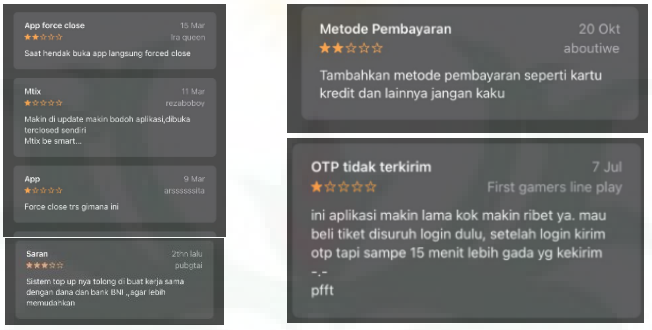
In addition to the less intuitive user interface design, other issues faced by users of the M-Tix application include limited payment methods. Ticket booking is facilitated by creating a personal account, provided for free through the M-Tix feature. Payments are also conducted online via a Top Up system. The minimum deposit amount for the M-Tix application is IDR 100,000, with an additional bank administration fee of IDR 5,000 when topping up the balance using mobile banking and some other less familiar payment methods.



Source: Nusantara Sejahtera Raya, 2024

Figure 1.4 Payment in M.Tix Application

Additionally, consumers have reported frequent force closures of the M-Tix application, delays in OTP delivery and adding their payment methods which further exacerbate their frustration and hinder the seamless execution of ticket purchases. According to Putri & Indrayanti (2023) appropriate user interface (UI) design will lead to a satisfying user experience (UX) for application users. User experience encompasses not only graphical elements displayed on the screen but also all interactions users have with the product and services.



Source: Nusantara Sejahtera Raya, 2024

Figure 1. 5 Users Complaint (2)

The success or failure of a mobile application is significantly influenced by its user experience (UX), which plays a crucial role in its development (Li & Zhu, 2019). It is one of the factors affecting users' demand to continue using m-commerce applications. Other factors include the performance of m-commerce applications, device quality, and the quality of service provided (Ye & Liu, 2017). A good relationship between users and the application will enhance user loyalty to the application. An application must provide a good user experience as a means of interacting with users (Karyono *et al*., 2019).

The issues with the M.Tix application are its inefficient user interface and user experience. If an application is difficult to use, users will leave or stop using it. Users tend to believe that things that look better will work better, even if they are not necessarily more efficient or effective (Putri & Indrayanti, 2023). User experience is a perception and response generated by users in response to the use of a product, system, or service. In addition to service and product quality, user experience is one of the

factors influencing the rating assessment of an application. Companies must strive to optimize user experience to enhance the competitiveness of a mobile application (Ye & Liu, 2017).

In this study A/B testing was employed to assess the user interface. Two versions, namely A and B, were created for comparison, aiming to determine the optimal design between them. Subsequently, the selected best design underwent evaluation using the User Experience Questionnaire (Carisfian *et al*., 2019). Such as the research conducted by Darmawan & Rohman (2022) titled " Peningkatan Performa Pengalaman Pengguna Aplikasi Seluler Ajaib dengan Pendekatan Design Thinking dan Pengujian A/B: Studi Kasus UX Terhadap Ajaib - Platform Investasi Daring " the research findings indicated that the latest interface design successfully improved user performance by 72% compared to the existing interface design. It also attained an "A" grade (with an average SUS score of 86), signifying Best Imaginable in terms of user experience.

After identifying the best design, the researchers proceeded to employ the User Experience Questionnaire (UEQ) model., which is a questionnaire employed to measure the experience with a particular (Schrepp *et al*., 2017). The objective of using UEQ is to assess the user-perceived experience of a product accurately and efficiently. The advantage of UEQ, when compared to similar user experience evaluation methods that also utilize questionnaires such as the Questionnaire for User Interface Satisfaction (QUIS), System Usability Scale (SUS), Software Usability Measurement Inventory (SUMI), and Standardized User Experience Percentile Rank Questionnaire (SUPER-Q), lies in the aspects of user experience that it can measure. QUIS only assesses the interface aspect of a product, whereas SUS and SUMI solely evaluate the usability aspect of a product, and SUPER-Q can measure four aspects: usability, loyalty, trust, and appearance, but its users are limited to website evaluations only.

Abdillah (2019) conducted a study titled " Analisis Aplikasi Mobile Transportasi Online Menggunakan User Experience Questionnaire pada Era Millennial dan Z" involving 154 computer science students as respondents. This research examined the experiences of millennial and Gen Z students in using the Gojek online transportation service. The findings of this study revealed that all categories of UEQ received scores in

the positive range. The benchmark values for the Gojek application indicated a rating scale of "above average" and "good."

Based on the background of the study above, the researcher is interested in writing a scientific work titled **"The Development of User Interface (UI) for M-Tix Application to Enhance User Experience Using A/B Testing Method".**

1.2. Identification of The Problem

The identification of the problem in this research, based on the explanation provided in the previous background as follows:

1. The M-Tix application has received low ratings on both the Google Play Store (3.5 with 46.9 thousand reviews) and the App Store (2.5 with 1.7 thousand reviews). These ratings reflect widespread dissatisfaction with the app's performance and usability.
2. The M-Tix application is its unappealing interface design. Users frequently report that the interface is not visually engaging, which can detract from the overall user experience. The unattractive design of M-Tix's interface may discourage users from engaging with the app thus reducing its effectiveness.
3. The user flow within the M-Tix application is often described as challenging and confusing. This issue makes it difficult for users to navigate the app, book tickets, and complete transactions smoothly. A confusing user flow can lead to frustration and ultimately cause users to abandon the app in favor of more user-friendly alternatives.
4. Users of the M-Tix application often experience forced closures and other technical issues. These technical problems not only disrupt the user experience but also erode trust in the app's reliability.

   The limited payment methods on the M-Tix application may not only inconvenience users but also raise concerns about the app's ability to handle diverse and secure transactions. This can adversely affect user trust and satisfaction.

1.3. Scope of The Study

In reference to the identified issues in the background, this research will be concentrated on specific aspects to ensure that the scope remains focused and dos not deviate into unrelated topics. Therefore, this research is confined to several specific aspects as follows:

1. The primary focus of this study is to improve the user interface of the M-Tix application. This encompasses the visual design, interaction design, and overall layout that influence user interactions. The scope is specifically concentrated on redesigning the main page of the application, which is crucial for user engagement and serves as the initial point of interaction for users.
2. This study will utilize A/B testing to evaluate different UI designs. By focusing on this methodological approach, the study will conduct comparative analyses between two distinct design alternatives (A and B) to determine which design more effectively enhances the user interface and experience.
3. The study will specifically utilize Figma for interface design. Figma is selected due to its collaborative capabilities and its effectiveness in creating dynamic UI prototypes, making it well-suited for the iterative design process essential for A/B testing.
4. The study will specifically target users of the M-Tix application, who are located and reside in the city of Medan. This demarcation of the target group helps in tailoring the UI/UX to the preferences and behaviors of a specific user base, which is likely representative of the typical users of the M-Tix application.

1.4. Problem of The Study

The formulation of the research problem in this Study as follows:

1. How does the current user interface design of the M-Tix application affect user satisfaction and engagement?
2. What specific aspects of the M-Tix application's user interface can be optimized to enhance user experience?
3. Which A/B testing methodologies are most effective in identifying superior UI designs for mobile applications like M-Tix?

4. How do different user interface designs influence the overall performance of the M-Tix application in real-world scenarios?
5. What are the preferences of target users (who are located and reside in the city of Medan) regarding mobile application interfaces, and how can these preferences be integrated into the M-Tix UI redesign?

1.5. Objective of The Study

The objectives of this research are as follows:

To evaluate how the current UI design influences user satisfaction and engagement with the M-Tix application.

1. To identify and implement design enhancements in the M-Tix application that improve usability and user experience.
2. To assess the effectiveness of different A/B testing methodologies for enhancing UI design in the M-Tix application.
3. To examine the impact of different UI designs on the operational performance of the M-Tix application.
4. To integrate user preferences into the redesign of the M-Tix application's UI, focusing on the target demographic of people who live in and are located in the city of Medan.

1.6. Significance of The Study

The findings of the study were expected to provide specific benefits. The research has two implications; theoretical significance and practical significance. The explanation is as follow:

1. Theoretical Significance

   This research is expected to contribute to the development of the User Interface of the M-Tix application in enhancing user experience using A/B Testing, serving as a reference for knowledge advancement in the field of Digital Business, and providing a relevant source for further research endeavors.

2. Practical Significance

The design outcomes of the user interface created by the researcher are anticipated to serve as input and reference materials for the M-Tix application development team to enhance the quality of user experience in utilizing the application.