Instal : Jurnal Komputer

E-ISSN: 2808-683X
Edisi : Volume 17 Nomor 12 | Tahun 2026

Available online at https://journalinstal.cattleyadf.org/index.php/Instal/index

UI/UX Design for Calligraphy Product Sales Application at Paris Store Using Design Thinking Method

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ARTICLE INFO

Keywords:

Mobile Application,
Calligraphy Art,
Design Thinking,
UI/UX,
Figma

ABSTRACT

Toko Paris is an UMKM engaged in the sale of Arabic calligraphy products and still runs a conventional sales system through physical stores. Therefore, a digital solution is needed that can improve service convenience and sales effectiveness. This study aims to design the user interface (UI) and user experience (UX) design on the Toko Paris mobile application by applying the Design Thinking method. This method is carried out through several main stages, namely empathize, define, ideate, prototype, and testing. The application display design was carried out using Figma software as a visualization medium for mobile design. Furthermore, the resulting prototype was evaluated using the System Usability Scale (SUS) method. The results of testing on 10 respondents by answering 10 questions and obtained a SUS score of 65 which is included in the adjective category Good and the acceptability level Marginal High. This application design is expected to be a digital solution that can support the increase in competitiveness of Toko Paris UMKM in facing the era of digital transformation.

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INTRODUCTION

UMKM play a crucial role in supporting the Indonesian economy, both in terms of their contribution to Gross Domestic Product (GDP) and in providing employment. UMKM are also the primary drivers of economic activity based on local potential and creativity, including in the arts and creative industries. However, many UMKM still operate conventionally and have not yet optimally utilized digital technology, thus experiencing limitations in marketing reach and business competitiveness (Wahyudi et al., 2025).

Toko Paris is a UMKM specializing in Arabic calligraphy products and located in Medan. The calligraphy products they produce possess high aesthetic and religious value, requiring clear information presentation, engaging visuals, and an easy-to-understand ordering process. However, Toko Paris still operates conventionally through physical stores

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and has not yet utilized digital media for promotion or transactions. This situation makes product information difficult for potential customers to access, resulting in low sales.

In addition to limited promotions, the product ordering process at Toko Paris also continues to cause confusion for customers. Customers often struggle to understand the variety of calligraphy designs, media sizes, and the ordering steps. Similar issues have been encountered in other UMKM that lack a structured digital sales system, where the disorganized presentation of product information directly impacts the user experience and consumer purchasing intention (Garini et al., 2025).

One solution that can be implemented to overcome these problems is the development of a mobile-based sales application that takes into account the User Interface (UI) and User Experience (UX) aspects. Mobile applications enable the presentation of product catalogs in a more systematic, informative, and easily accessible manner for users. UI plays a role in presenting the application's visual appearance, while UX focuses on user comfort and convenience when interacting with the system. Well-designed UI/UX designs have been proven to increase user satisfaction and the effectiveness of application use in creative product-based UMKM (Fajrina et al., 2025).

The Design Thinking method is a user-centered design approach that emphasizes a deep understanding of the problems users face. This method consists of the stages of empathize, define, ideate, prototype, and test, helping designers generate relevant and user-friendly solutions. This approach is considered effective in UI/UX design for UMKM applications because it directly involves users in the design and evaluation process.

Based on these problems, this study aims to design the UI/UX of a calligraphy product sales application at the Paris Store using the Design Thinking method. The designed application is expected to help customers understand the products more clearly, simplify the ordering process, and improve the quality of service and sales at the Paris Store. To determine the level of success of the application design, usability and user experience testing were conducted using the Design Thinking method. System Usability Scale (SUS) provides User Experience Questionnaire (UEQ).

METHOD

Research Method

This study uses the Design Thinking method as the primary approach in designing the User Interface (UI) and User Experience (UX) for a calligraphy product sales application at the Paris Store. This method was chosen because it focuses on understanding user needs and solving problems creatively and systematically. The Design Thinking method has 5 stages consisting of, empathize (empathy), define (determination), conceived (goes), prototype (prototype), and test (trials

Gambar 1. Main Stages of Design Thinking

- ***Emphatize***

  This stage is the initial step in implementing the Design Thinking method, which aims

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to gain a deep understanding of user experiences and the various problems they face and need to solve (Masruroh Syah et al., 2024). At this stage, researchers focus on users as the center of the design process by exploring their needs, expectations, and the difficulties they experience when purchasing existing products or services. Data collection is carried out through direct observation, interviews, and questionnaires distributed to users. The information obtained at this stage serves as an important basis for formulating appropriate solutions that meet user needs in the next stage.

- ***Define***
  This stage is where the interview results obtained by users are analyzed and summarized (Irawan et al., 2024). At this stage, all data obtained in the empathize stage, such as interviews, observations, and questionnaires, are analyzed in depth to identify the main problems experienced by users. The results of this analysis are then summarized in the form of a clear and focused problem statement. Furthermore, this stage also involves the preparation of a user persona and user journey to describe user characteristics and the flow of user interaction with the system. The define stage plays an important role as a basis for determining the direction of the solution in the next design stage.
- ***Ide***
  The Ideate stage is the third stage in the Design Thinking method, focusing on the process of developing ideas to generate solutions to user problems. At this stage, researchers conduct various creative activities such as brainstorming, mind mapping, and ideation to explore various possible solutions (Prasetyo et al., 2024). Each generated idea is then analyzed and selected based on its suitability to user needs and the objectives of the system being developed. The results of the Ideate stage are solution concepts and application feature designs that will form the basis for creating designs and prototypes in the next stage.
- ***Prototype***
  The Prototype stage focuses on implementing solutions or ideas gathered in the previous stage into a prototype or product that can be tested (Rantung & Mambu, 2023). The prototype is designed to visually illustrate the system's usage flow, navigation structure, and user interface. Prototypes are created using interface design software such as Figma to visualize the design clearly and easily. The resulting prototype serves as an initial evaluation tool before the application is further developed and tested with users in the next stage.
- ***Test***
  - The testing phase is a crucial step in implementing the Design Thinking method. At this stage, the designed prototype is directly tested by users or potential users of the system. This testing aims to assess the effectiveness and suitability of the resulting design, while also obtaining user feedback as evaluation material and a basis for making improvements and refinements to the design (Nifail Zazhemi & Marcos, 2025). The testing method used in this study is*System Usability Scale* (SUS) to measure the level of usability and*User Experience Questionnaire* (UEQ) to assess the overall user experience. The test results are used as a basis for making improvements and refinements to the design if necessary.

Data Collection Methods

Data collection in this study was conducted using two main approaches: questionnaires and observation. The questionnaire was distributed online via WhatsApp, involving potential customers and the community around Toko Paris. The purpose of distributing this questionnaire was to obtain a more comprehensive picture of user needs, satisfaction levels,

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expectations, and their experiences in utilizing the calligraphy product ordering service provided by Toko Paris. This method was chosen because it was considered effective in reaching respondents quickly and conveniently.

In addition to questionnaires, observation techniques were used to directly understand user experiences in real-world situations. Observations were conducted by observing how users interacted with the booking service, including usage behavior, obstacles encountered, and user responses throughout the process. This approach enabled researchers to obtain contextual data that cannot always be obtained through questionnaires. All observational data was then analyzed qualitatively to identify user behavior patterns, identify potential problems, and formulate improvement opportunities that could be implemented in the design process to make the booking system more effective and user-friendly.

RESULTS AND DISCUSSION

The results and discussion serve as a crucial stage because they show the implementation of the design that has been prepared into a real implementation. This section presents the output of the user interface design (*User Interface*) and user experience (*User Experience*) on a mobile ordering system application designed for the Paris Store. The UI/UX design not only emphasizes the visual appearance, but also the user interaction mechanism in using the application. The resulting design aims to improve ease of access, clarity of navigation, and user comfort in ordering calligraphy products at the Paris Store. Through this system, the ordering process can be monitored comprehensively by both users and business management. The design process was carried out by considering aspects of color scheme selection, typography, element size, and the use of communicative icons. These considerations are applied so that product information can be conveyed optimally until all stages of the order are completed. The following presents the results of the implementation of the developed UI/UX design.

Result and Discussion of UI/UX Application Design

a) UI/UX Design of Login Display

Figure 3.1 below displays the home page. Users need to click the green "Start" button. They then enter their details on the login page if they already have an account. If they don't have an account, they can click the "Register" button to create one. After entering their details, they can click the "Login/Register" button.

Gambar 2. Login Menu Display

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b) Home Menu UI/UX Design

Gambar 3. Home Menu View

Figure 3.2 shows the main menu display, which displays products from the Paris Store that users can view. This display includes several tools, such as a search bar for searching for products, a home menu containing the main page or homepage, account owner information, activity or order history, and checkout or cart.

c) UI/UX Design of the Search Menu

Gambar 3. 3 Search Menu

Figure 3.3 above shows a search menu designed to make it easier for users to find the products they want. With the search menu, users don't need to browse product lists one by one; they can simply type in relevant keywords, and the system will display the products they're looking for.

d) Order Menu UI/UX Design

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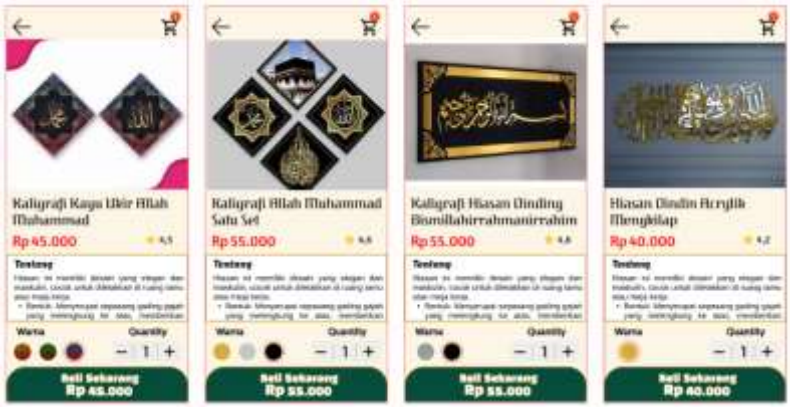


Gambar 3. 4 Order Menu

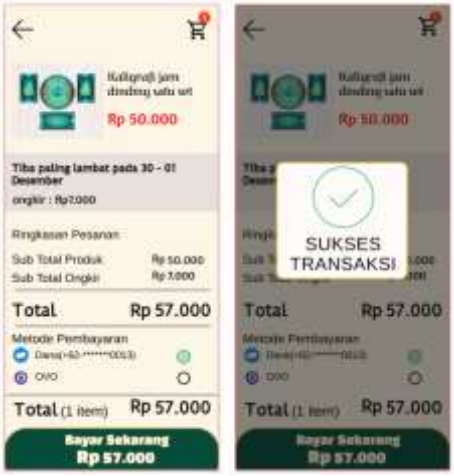
In Figure 3.4, this feature displays available product information. Its purpose is to provide users with a comprehensive explanation so they have a clear picture of the product they wish to order. In addition to product information, this feature also includes color selection and quantity options, applicable to each product.

e) Cart Menu UI/UX Design

Gambar 3. 5 Cart Menu

Figure 3.5 shows the product cart display. This menu serves to temporarily store products selected by the user before proceeding to payment. Through this menu, users can review the list of products they wish to purchase, including the quantity and price. Additionally, users can add and remove products from the cart as needed.

f) Payment Menu UI/UX Design



Gambar 3. 6 Payment Menu

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Figure 3.6 shows the payment menu. This screen appears when the user presses the green "buy now" button. This menu displays the total price of the product they wish to order and the payment options.

g) UI/UX Design of the Ordering Activity Menu

Gambar 3. 7 Order Activity Menu

Figure 3.7 displays the order activity menu, which displays the history and status of user orders. This menu allows users to monitor the order process, from the ordering stage to payment and delivery.

Original Data and Trial

a) Initial Original Data

Table 3.1 presents initial data obtained from the results of respondents' assessments via a questionnaire distributed using Google Form. The questionnaire uses a Likert scale with a value range of 1 to 5. The Likert scale is one of the most commonly used psychometric scales in survey research.

Tabel 3. 1 Questionnaire Data

NO	Responden	Skor Asli									
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	Responden 1	4	2	4	2	3	4	5	3	3	4
2	Responden 2	4	2	4	3	4	3	4	2	4	4
3	Responden 3	4	3	5	2	4	3	4	2	4	4
4	Responden 4	5	3	4	3	4	4	4	2	4	4
5	Responden 5	4	4	3	4	4	3	3	5	3	4
6	Responden 6	4	3	4	1	4	5	4	2	4	2
7	Responden 7	5	4	2	4	3	1	3	3	3	2
8	Responden 8	4	1	4	2	4	3	3	3	4	2
9	Responden 9	5	2	4	2	4	4	5	2	4	4
10	Responden 10	5	1	5	2	5	2	5	2	5	2

Table 3.1 contains the answers from 10 respondents who answered the 10 questions in the questionnaire. This data will then be calculated using the System Usability Scale (SUS).

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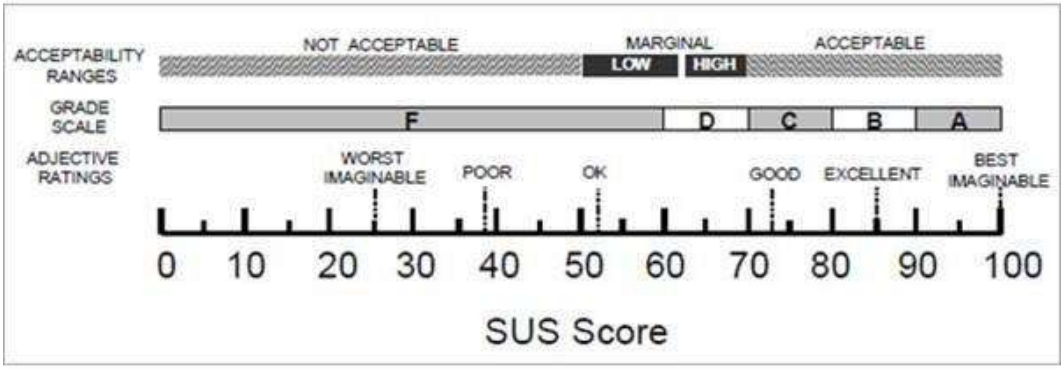
The purpose of using the SUS is to determine the level of effectiveness, efficiency, and user satisfaction.

b) Trial Using the SUS Formula

Table 3.2 shows the results of processing the questionnaire using the System Usability Scale (SUS) method. This data was obtained from respondents' answers in Table 3.1. Each question in the SUS questionnaire was calculated using formulas and rules established in the SUS method, resulting in a standardized usability score.

Tabel 3. 2 Final Data With SUS

Skor Hasil Hitung										Jumlah	Nilai (Jumlah x 2,5)
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10		
3	3	3	3	2	1	4	2	2	1	24	60
3	3	3	2	3	2	3	3	3	1	26	65
3	2	4	3	3	2	3	3	3	1	27	67,5
4	2	3	2	3	1	3	3	3	1	25	62,5
3	1	2	1	3	2	2	0	2	1	17	42,5
3	2	3	4	3	0	3	3	3	3	27	67,5
4	1	1	1	2	4	2	2	2	3	22	55
3	4	3	3	3	2	2	2	3	3	28	70
4	3	3	3	3	1	4	3	3	1	28	70
4	4	4	3	4	3	4	3	4	3	36	90
Jumlah Rata-Rata Score											65



Gambar 3. 1 SUS Scale

Based on the data calculation results in tables 3.1 and 3.2, the design of the ordering system application at the Paris Store obtained an average score of 65. This score is in the D category with an Adjective Good scale and a Marginal High Acceptability level. These results indicate that the designed system has a fairly good level of usability, but still needs improvement. This is because some users still have difficulty and confusion in using this system.

CONCLUSION

The UI/UX design of a calligraphy product sales application at a Paris store using the Design Thinking method shows effective results in meeting user needs. The design process produces an application with an attractive, easy-to-use interface, and is able to support the ordering process efficiently. The usability test results obtained a fairly good score of 65 with

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an Adjective Good scale and a Marginal High Acceptability level, which indicates that the application received a good response and level of acceptance from users. In the future, this application can still be developed by adding digital payment features, order status tracking, and customer bonus/reward features. In addition, testing with a larger number of respondents is recommended so that the research results are more representative. This research is expected to be a reference for other MSMEs in developing applications as part of their business digital transformation efforts.

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