

Redesign of the Mobile Banking User Interface at Bank XYZ Based on System Log Data and the Design Thinking Method

Bobi Kurniawan*, Mahendrawathi ER

Institut Teknologi Sepuluh Nopember, Indonesia

Email: bobi.kurniawan@gmail.com*, mahendrawathi.er@its.ac.id

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ABSTRACT

Research on mobile banking application interface redesign generally focuses on qualitative approaches based on observation and interviews, which are limited by their subjective nature and do not fully represent actual user behavior. Therefore, this study examines the redesign of Bank XYZ's mobile banking user interface by incorporating system log data analysis. This research aims to identify barriers and formulate solutions for improving the mobile banking application to increase usability and optimize the user experience through a Design Thinking approach. The method used combined interviews with active users and system log data analysis to gain a comprehensive understanding. The use of system log data complements observation and interview data with actual user behavior data, hopefully resulting in more objective and effective interface redesign recommendations. The results of the study showed that integrating user interviews with system log data was able to identify root causes that were not visible with a qualitative approach alone. The redesign resulted in a simplified transaction flow, repositioning menus based on frequency of use, the addition of a Quick Access feature, balance information on the transaction page, a copy account number feature, increased PIN input responsiveness, and improved application navigation. Test results from the second iteration showed increased transaction completion efficiency, decreased PIN input time, ease of finding key features, and an improved user experience compared to the previous design.

INTRODUCTION

Research related to *redesigning the appearance of mobile banking applications* generally still focuses on qualitative approaches based on observational data, such as user *feedback* available on the Play store and Appstore platforms, as well as the results of interviews with several active users. However, this approach has limitations because *the feedback* obtained is subjective and does not fully represent actual user behavior when interacting with the system (Følstad, 2017; Shin, 2020). Therefore, this study raises the topic of redesigning the *mobile banking* interface at Bank XYZ by adding a *system log data analysis approach* to address the gap (*research gap*) in previous research.

Bank XYZ has launched e-channel services consisting of *mobile banking applications*, internet banking (individual and business) in September 2024. Many features have been equipped in the *e-channel service*, especially in the *mobile banking application* named *mobile banking XYZ*, such as: transfers between banks, transfers between banks, QRIS *payments* and *Bill Payments*. In more than a year since its launch, Bank Management wanted to see *reviews*

on Playstore and Appstore, but no negative *feedback was found* (Alismail & Albeshher, 2023; Hassan et al., 2018). However, it is inversely proportional to the exposure of *the system log data* in the application (Çallı, 2023; Gupta & Srivastava, 2025). Where several things were found that needed to be improved, namely: (1) there are features that are still not used effectively; (2) the transaction flow is considered less efficient because it has quite long stages. In addition, there is *feedback* from several internal users (bank employees) where there are still menus that are still not *user-friendly*.

Table 1. Number of Transactions for the Period of October 2025

Service Type	Number of Transactions
	Percentage
Online Transfer	48.73%
QR Payment	21.55%
Overbooking	9.14%
BI-Fast	8.12%
Gopay	4.15%
Shopee Pay	1.81%
Funds	1.69%
Ovo	1.45%
TV	0.00%

Table 1. **Number of Transactions for the Period of October 2025** is used as a basis for identifying the most and least used services by users, so that services that are not yet optimal can be adjusted for optimal use by users. The most widely used service is transfer transactions via *Realtime Online* (RTOL) at 48.73% and the one that is not used at all is *TV channel payments* at 0%. Referring to the Press Release of the Communication Department of Bank Indonesia (Bank Indonesia, 2025) , the volume of digital payment transactions reached 4.43 billion transactions, growing 39.79% (yoy) in August 2025 with *the volume of mobile banking* applications contributing growth of 15.86% (yoy). Therefore, the development of digital technology has brought major changes to banking services for customers in their daily lives. From the results of the explanation above, Bank XYZ sees the important role of *mobile banking* in the daily lives of customers and wants to make *improvements* to keep up with the competition in the Indonesian banking world (Palamidovska-Sterjadovska et al., 2025).

Registration of new customers who have opened an account through *Customer Service*. Analysis results show that there were still 22 failed registration attempts. Therefore, adjustments to the application process and interface are needed to minimize registration failures, considering that ideally, an application should be able to facilitate the registration process without resulting in failures.

Previous research has been conducted on the evaluation of *mobile banking applications* using the *Design Thinking method* at Bank BPD Bali (jdasea et al., 2024) , which focused on analyzing user *feedback via the Play Store without considering the log data* available in the system. Furthermore, research by Hedi Yusuf (2023) also used *feedback data* from the Play

Store as the basis for evaluating Bank BNI's *mobile banking application*. Therefore, researchers see a *research gap* where previous studies have not used *the log data system*. Therefore, a more comprehensive evaluation can be carried out by utilizing a more actual *log data system* to gain a deeper understanding of real user behavior and experience (Benova & Hudec, 2024; Hussain et al., 2018).

This study aims to analyze data-driven insight by using system log data from application usage to identify existing problems, provide appropriate recommendations related to redesigning the interface, creating a more effective transaction process flow, and increasing customer use of existing features. The method used is Design Thinking as an innovation approach that focuses on user-centeredness and business feasibility to create valuable solutions for customers. Design Thinking is also used to understand customer needs and preferences so that a remapping of the menu flow that does not meet user expectations can be carried out. In addition, this research also involves an interview process with active users to gain a deeper understanding of their experiences, needs, and obstacles they experience when using the application. The integration of system log data and interviews is consistent with research by Kurniawan and Fabroyir (2024), which used Design Thinking stages to develop digital gift features based on customer needs identified through surveys.

This research will produce a prototype that will be created using Figma tools with a higher quality display of High-fidelity design (Hi Fi). The resulting prototype will be used to test the effectiveness and success of the solution as an output of the redesign process in this research. Previous research by Abimanyu and Sutopo (2024) on redesigning the BCA Mobile Banking user interface using Design Thinking emphasized that resulting prototypes must be tested iteratively to ensure they meet user needs. Thus, the results of this research are expected to be able to provide strategic recommendations for Bank XYZ management in increasing marketing effectiveness and developing technology-based services.

METHOD

This research used a descriptive qualitative approach with a strategic case study design. The qualitative approach was chosen because it provides an in-depth understanding of geopolitical phenomena, maritime security, and defense policy, which are complex and multidimensional (Creswell & Creswell, 2018). The case study is used to comprehensively analyze how Indonesia responds to the United States–China geopolitical rivalry in the context of maritime security in the Indo-Pacific region.

The research topics include Indonesian maritime security policy, national maritime security governance, maritime diplomacy, national maritime power development, and the role of coastal communities in supporting maritime security. The analysis focuses on the relationship between Indo-Pacific geopolitical dynamics and efforts to build Indonesia's maritime security resilience.

The research data consists of primary and secondary data. Primary data was obtained through in-depth interviews with maritime security academics, defense practitioners, government officials, and maritime sector stakeholders. Secondary data was obtained from official government reports, national policy documents, reports from UNCTAD, the International Maritime Organization (IMO), the World Bank, the International Monetary Fund

(IMF), the ASEAN Outlook on the Indo-Pacific, and various relevant national and international scientific journals.

Data collection was conducted through literature review, document analysis, observation, and in-depth interviews. To ensure the validity of the research, source triangulation, method triangulation, and theory triangulation techniques were used (Miles, Huberman, & Saldaña, 2018).

Data analysis used the interactive model of Miles, Huberman, and Saldaña (2018), which includes data reduction, data presentation, and conclusion drawing. To answer the first research question, the study employed Prakoso's (2020) Maritime Security Policy Implementation Theory, which comprises the dimensions of integration, interaction, transparency, control, accountability, confidentiality, and regulation. This theory was used to evaluate the implementation of Indonesia's current maritime security strategy.

To address the second research question, the study employed Bueger's (2015) Maritime Security Matrix approach, which encompasses the dimensions of Sea Power, Marine Environment, Economic Development, and Human Security. This analysis was combined with a SWOT analysis to formulate Indonesia's maritime security resilience strategy toward Golden Indonesia 2045.

The research analysis framework begins with the identification of the United States–China geopolitical rivalry as an external variable, followed by an analysis of Indonesia's current maritime security implementation, identification of national strengths and weaknesses, and the development of a resilience strategy based on Christian Bueger's four maritime security matrices. The final result of the research is expected to produce a maritime security strategy model that is adaptive, sustainable, and capable of supporting the achievement of the Golden Indonesia 2045 vision.

RESULT AND DISCUSSION

First Iteration Evaluation Results Based on System Log Data

Based on the results of *the data log system* that was carried out on respondents, several main findings were obtained as follows:

1. There are several stages in the transaction process that are still not efficient.

Table 2. Real-time Online (RTOL) transaction stages

No	Timestamp	Event	Account No	Description
1	25/05/2026 10:02:15	LOGIN_SUCCESS		Login berhasil
2	25/05/2026 10:02:17	DASHBOARD_VIEW		Beranda tampil
3	25/05/2026 10:02:19	TRANSFER_MENU_CLICK		Masuk menu transfer
4	25/05/2026 10:02:22	ONLINE_TRANSFER_CLICK		Pilih Online Transfer
5	25/05/2026 10:02:24	SELECT_SOURCE_ACCOUNT		Pilih rekening sumber
6	25/05/2026 10:02:26	SELECT_DEST_ACCOUNT		Pilih tujuan
7	25/05/2026 10:02:28	INPUT_AMOUNT		Isi nominal
8	25/05/2026 10:02:32	BUTTON_NEXT_CLICK		Klik lanjut
9	25/05/2026 10:02:34	CONFIRMATION_VIEW		Halaman ringkasan
10	25/05/2026 10:02:36	BUTTON_CONFIRM_CLICK		Konfirmasi
11	25/05/2026 10:02:38	INPUT_PIN_TRANSACTION		PIN transaksi dikirim
12	25/05/2026 10:02:46	PIN_TRANSACTION_SUCCESS		PIN transaksi sukses
13	25/05/2026 10:02:48	TRANSFER_SUCCESS		Transaksi berhasil

Table 2 shows that completing an interbank transfer requires users to go through several lengthy steps to reach the transaction menu. This can lead to longer transaction completion times for customers. This indicates a need to simplify the navigation flow.

2. High frequency of failures in the registration process



Figure 1. Failed Registration Data

Based on Figure 1, the high number of *ACS Data Not Found* alerts indicates a failure to receive a successful SMS from the provider. This situation indicates the need for further analysis of the *GetStatus* logic in the registration process, which checks status for up to 2 minutes.

3. There is a product information menu that has a low level of user access.

Table 3. Visit Menu Data

Activity	Period January 8, 2026
Get Product Info	1
Sign Out MB	15
***	35
***	43
***	120
***	139
***	803
***	3286
Grand Total	4442

Based on menu visit log data on the STAR Mobile Banking application, the *Get Product Info* feature (1 activity) and *Sign Out MB* (15 activities) are the features with the lowest usage rate out of a total of 4,442 user activities. Specifically for the *Sign Out MB* feature, low usage may indicate low user awareness of security aspects or difficulty finding the logout button. Therefore, an interface redesign is needed to improve the visibility and accessibility of both features, especially the placement of the logout feature so that it is easier to find.

4. The transaction PIN input process is still not efficient.

Table 4 Transaction PIN Input Time Information

No	Timestamp	Event	Account No	Description
1	25/05/2026 10:02:15	LOGIN_SUCCESS		Login berhasil
2	25/05/2026 10:02:17	DASHBOARD_VIEW		Beranda tampil
3	25/05/2026 10:02:19	TRANSFER_MENU_CLICK		Masuk menu transfer
4	25/05/2026 10:02:22	ONLINE_TRANSFER_CLICK		Pilih Online Transfer

5	25/05/2026 10:02:24	SELECT_SOURCE_ACCOUNT	Pilih rekening sumber
6	25/05/2026 10:02:26	SELECT_DEST_ACCOUNT	Pilih tujuan
7	25/05/2026 10:02:28	INPUT_AMOUNT	Isi nominal
8	25/05/2026 10:02:32	BUTTON_NEXT_CLICK	Klik lanjut
9	25/05/2026 10:02:34	CONFIRMATION_VIEW	Halaman ringkasan
10	25/05/2026 10:02:36	BUTTON_CONFIRM_CLICK	Konfirmasi
11	25/05/2026 10:02:38	INPUT_PIN_TRANSACTION	PIN transaksi dikirim
12	25/05/2026 10:02:46	PIN_TRANSACTION_SUCCES S	PIN transaksi sukses
13	25/05/2026 10:02:48	TRANSFER_SUCCESS	Transaksi berhasil

Descriptions	Nilai
Duration in Seconds	33 Seconds
Duration in Minutes	0.6 Minutes

No	Timestamp	Event	Account No	Description
1	25/05/2026 10:02:11	LOGIN_SUCCESS		Login berhasil
2	25/05/2026 10:02:13	DASHBOARD_VIEW		Beranda tampil
3	25/05/2026 10:02:15	TRANSFER_MENU_CLICK		Masuk menu transfer
4	25/05/2026 10:02:17	BIFAST_CLICK		Pilih BI Fast Transfer
5	25/05/2026 10:02:19	SELECT_SOURCE_ACCOUNT		Pilih rekening sumber
6	25/05/2026 10:02:21	SELECT_DEST_ACCOUNT		Pilih tujuan
7	25/05/2026 10:02:23	INPUT_AMOUNT		Isi nominal
8	25/05/2026 10:02:25	BUTTON_NEXT_CLICK		Klik lanjut
9	25/05/2026 10:02:27	CONFIRMATION_VIEW		Halaman ringkasan
10	25/05/2026 10:02:30	BUTTON_CONFIRM_CLICK		Konfirmasi
11	25/05/2026 10:02:33	INPUT_PIN_TRANSACTION		PIN transaksi dikirim
12	25/05/2026 10:02:41	PIN_TRANSACTION_SUCCES S		PIN transaksi sukses
13	25/05/2026 10:02:43	TRANSFER_SUCCESS		Transaksi berhasil

Descriptions	Nilai
Duration in Seconds	32 Second
Duration in Minutes	0.5 Minutes

No	Timestamp	Event	Account No	Description
1	25/05/2026 14:02:23	LOGIN_SUCCESS		Login berhasil
2	25/05/2026 14:02:22	DASHBOARD_VIEW		Beranda tampil
3	25/05/2026 14:02:24	TRANSFER_MENU_CLICK		Masuk menu transfer
4	25/05/2026 14:02:26	OVERBOOKING_CLICK		Pilih Overbooking
5	25/05/2026 14:02:29	SELECT_SOURCE_ACCOUNT		Pilih rekening sumber
6	25/05/2026 14:02:31	SELECT_DEST_ACCOUNT		Pilih tujuan
7	25/05/2026 14:02:33	INPUT_AMOUNT		Isi nominal
8	25/05/2026 14:02:35	BUTTON_NEXT_CLICK		Klik lanjut
9	25/05/2026 14:02:37	CONFIRMATION_VIEW		Halaman ringkasan
10	25/05/2026 14:02:39	BUTTON_CONFIRM_CLICK		Konfirmasi
11	25/05/2026 14:02:41	INPUT_PIN_TRANSACTION		PIN transaksi dikirim
12	25/05/2026 14:02:49	PIN_TRANSACTION_SUCCES S		PIN transaksi sukses
13	25/05/2026 14:02:51	TRANSFER_SUCCESS		Transaksi berhasil

Descriptions	Nilai
Duration in Seconds	28 Seconds
Duration in Minutes	0.5 Minutes

Based on the test results in Table 4, the PIN validation process takes approximately 9–10 seconds, longer than the ideal duration of 4–6 seconds. This situation indicates the need for further evaluation to optimize performance at the final transaction stage.

5. There is a fairly high frequency of insufficient balance notifications when users make transactions.

Table 5. Table of Log Messages of Insufficient Balance

Period 8 Jan 2026	Amount
Insufficient Balance	13%
of Total Successful Transactions	
QRIS Payment	37.3%
Interbank Transfer	35.7%
Inter-Account Transfer	27%

the system log analysis results in Table 4, 13% of total transactions successfully received an *Insufficient Balance notification*, with the most incidents occurring in QRIS *Payment transactions*, followed by Interbank Transfers and Interaccount Transfers. This finding indicates the need for improvements to the STAR application's display design to make balance information easier for users to understand before making a transaction.

Interview Results on the First Iteration

Interview results from the first iteration showed that the majority of respondents still experienced various obstacles in using the *STAR Mobile Banking application*. As many as 90% (9/10 respondents) considered the transaction process too long and therefore less efficient, 80% (8/10 respondents) experienced failure in the account registration process, and 90% (9/10 respondents) stated that it was difficult to input the PIN because the buttons were considered less responsive and potentially caused *misclicks*. These findings indicate that the transaction flow and authentication process still need to be optimized to increase efficiency and user convenience.

From the interface side, as many as 90% (9/10 respondents) did not know the existence of the Product Information menu, 70% (7/10 respondents) had difficulty finding the *logout button*, 90% (9/10 respondents) had experienced *insufficient balance notifications* during transactions, and 80% (8/10 respondents) did not know the existence of the Favorites feature. In addition, all respondents 100% (10/10) stated that they were not satisfied with the appearance of the STAR application because they considered it less modern, less intuitive, and the placement of several features was still difficult to find. These results indicate that the *discoverability*, navigation, and information presentation aspects of the application still need improvement.

In addition to identifying various issues, interviews also explored user needs for new feature development. All respondents (100%) were familiar with the copy account number feature *in* other mobile banking applications and expected it to be available in the STAR application.

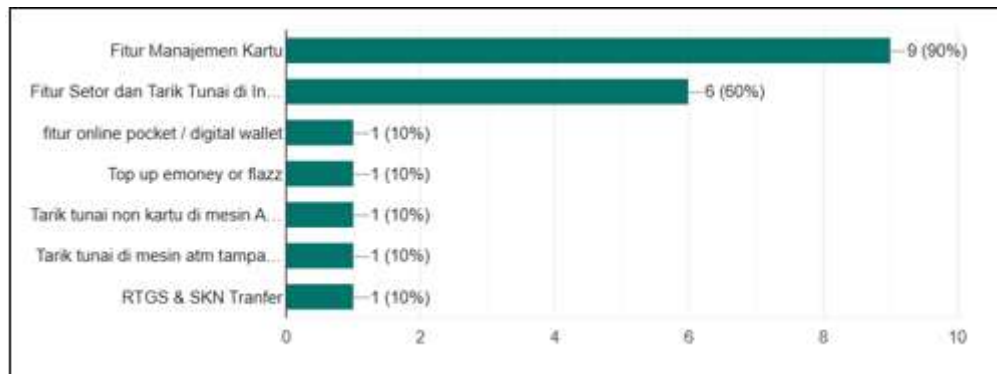


Figure 2. Features Expected in STAR Mobile Banking

The *multi-choice* results shown in Figure 2, the most anticipated feature was Card Management, chosen by 9 respondents, followed by cash deposit and withdrawal features through modern retail networks, chosen by 6 respondents. These findings suggest that the *redesign process* should focus not only on interface improvements but also on adding features that meet user needs.

Identifying User Problems and Needs

Define phase aims to identify and formulate key issues based on the results of *system log data analysis* and interviews in the first iteration. These two data sources are then combined to identify user needs *and* determine solutions that will form the basis for redesigning the *Mobile Banking interface*. STAR. The identification results are presented in Table 5.

Table 6. Solutions and Recommendations from the First Iteration

Interview (Code: W)	System Log Data (Code: D)	Level of Need
W01 The transaction process is considered too long, making it less efficient for users.	D01 The transaction process is still not efficient	Tall
W02 The registration menu that experiences the most failures	D02 High frequency of failures in the registration process	High – But not continued because the changes were on the backend side, not the UI appearance.
W03 Bank product information pages that are still unknown to many customers	D03 Product information menu that has low user access level	Tall
W04 <i>logout</i> mechanism is still unknown to many users.	D04 Low level of usage of the <i>logout</i> (sign out) feature	Tall
W05 <i>Mobile banking PIN input</i> is less sensitive	D05	Tall

	The transaction PIN input process is still not efficient	
W06	D06	Tall
Problem of insufficient balance after confirming transaction	The frequency of insufficient balance notifications is quite high when users make transactions.	
W07		Intermediate
The copy account number feature is widely used by users on other mobile banking, but the copy account number feature is not yet available.		
W08		Intermediate
The favorite save feature is considered less practical so it is less known by users.		
W09		Intermediate
Display assessment of the current STAR application		
W10		Intermediate
Features that are expected to be present in STAR mobile banking, namely card management		

Based on the identification results in Table 6, five high-priority needs were identified, focusing on increasing transaction process efficiency, improving feature visibility, optimizing the PIN authentication process, and presenting more informative balance information. These findings indicate that most of the issues experienced by users relate to *usability aspects, including efficiency, ease of navigation, and discoverability*.

Additionally, there were four medium-priority needs focused on feature development and user experience enhancements: the addition of a copy account number feature, the repositioning of the Favorites feature, the development of the Card Management feature, and a more modern interface update. These needs then formed the basis for developing a solution design during the *Ideate and Prototype stages of the Design Thinking method*.

Table 7 Changes to the STAR Design

No	Pain Point	Opportunities for Improvement (Recommended Solution)
1	Users need several steps to access the transaction menu, making the process less efficient.	Simplify the navigation structure and provide features <i>Quick Access</i> to the desired menu directly.
2	Users experience difficulties when registering an account for the first time.	Optimized the getStatus checking process while waiting for successful SMS confirmation during the registration process.
3	The Product Menu has a low level of visibility making it difficult for users to find.	Reposition the bank product info page to an area that is more visible and accessible to users.
4	The logout button has a low level of visibility, making it difficult for users to find.	Reposition the logout button to an area that is more visible and accessible to users.

No	Pain Point	Opportunities for Improvement (Recommended Solution)
5	Users experience difficulty when entering PINs because the PIN buttons are less responsive and lack visual barriers.	Redesigned the PIN input page by adding <i>borders</i> to each button and improving touch <i>response</i> .
6	Balance information is not displayed when users transfer funds, so failures often occur due to insufficient balance.	Displays balance information in the transaction menu when selecting a source account so that customers can choose a source that has sufficient balance.
7	<i>The Copy Account Number</i> feature is not yet available, so users must note down or retype the account number when they want to use it again.	Added <i>the Copy Account Number feature</i> on the account details page to make it easier for users to copy account numbers quickly and reduce the potential for copying errors.
8	<i>the Favorite Transaction</i> feature is not well understood so that users rarely use it.	Move your favorite transaction management to the <i>saved beneficiary list</i> to make it easier to find and use.
9	The application interface display is still less attractive and inconsistent, thus reducing user comfort.	Redesign the interface (UI) to <i>be</i> more modern, simple, and consistent on every page of the application.
10	The login process is still considered less practical because there are two button options in the login menu.	Optimizes the login process by combining password and biometric login in one button (<i>smart login</i>), with biometrics as the default method when activated.
11	Users expect the availability of a <i>Card Management feature</i> to manage debit cards independently through the STAR Mobile Banking application.	Added a <i>Card Management feature</i> that allows users to manage debit cards, such as viewing card information, activating or deactivating cards (card on/off), setting transaction limits, and making card security settings independently through the application.

Interview Results in the Second Iteration

Interview results from the second iteration showed that improvements made to the STAR Mobile Banking application have improved the user experience in various aspects. All 100% (10/10) respondents stated that the transaction flow has become more efficient after the implementation of the *Quick Access feature*, so that the transaction process can be carried out more quickly. In terms of the interface, the majority of respondents stated that the Product Information menu is now easier to find, while 90% (9/10 respondents) have known and used the *logout feature* in the new design, indicating an increase in *discoverability* compared to the previous iteration.

In terms of transactions, 80% (8/10 respondents) stated that the PIN input process was more responsive and convenient to use, although there was still input regarding the PIN digit deletion mechanism that needed to be improved. Furthermore, 90% (9/10 respondents) considered the addition of balance information to the funding source options very helpful because it allows users to know the available balance before making a transaction. All respondents (100%/10) also stated that the copy account number feature *made* it easier to share and reuse account numbers, while 100% of respondents considered the Favorites feature to be easier to find and more practical to use after the placement improvements.

In conclusion, the majority of respondents stated that the new STAR application interface is more modern, intuitive, and comfortable to use compared to the previous design. Furthermore, the interview results showed that the Card Management feature was the most

preferred new feature with a 100% preference rate, followed by the cash deposit and withdrawal feature through Indomart, chosen by 80% of respondents, and the SKN and RTGS transaction features, chosen by 20% of respondents. These findings indicate that the interface redesign in the second iteration not only succeeded in improving *usability* and user satisfaction, but also was able to meet user needs for new features that support daily banking activities.

The redesign of the STAR Mobile Banking interface began with problem identification through *System Log Data analysis* and user interviews. *System Log Data analysis* was able to objectively demonstrate application usage patterns, such as long transaction flows, high registration failure rates, low access to several features, and frequent *insufficient balance notifications*. However, this data could not explain the causes of the problems. Therefore, interviews were used to explore user experiences to obtain information regarding difficulties in finding features, inefficient navigation, and the need for new features. Combining these two data sources resulted in a more comprehensive identification of user needs, as described in the *mixed methods approach*. (Creswell, 2014) .

Based on these needs, the *Design Thinking method* is used to design user-centered solutions through the stages of *Empathize, Define, Ideate, Prototype, and Test*. (Plattner et al., 2011; Pande & Bharathi, 2020) . This approach helps each solution be developed based on problems actually experienced by users, such as simplifying the transaction flow through *Quick Access*, improving the registration process, repositioning hard-to-find features, improving the PIN input page, and adding balance information and new features. Brown, (2009) explains that *Design Thinking* focuses on creating innovative solutions that start from user needs so that the resulting solution is not only visually appealing, but also able to solve usage problems.

Evaluation of the second iteration showed that the design changes improved *usability*. Simplifying the transaction flow reduced the number of steps users had to complete, while improvements to the keypad design accelerated the PIN authentication process and reduced the potential for *misclicks* (Wan et al., 2024). Repositioning the Product Information menu and *logout button* also improved discoverability, while adding balance information to the transaction page helped users ensure balance availability before making a transaction, thus minimizing transaction failures (Wardana, 2025). These conditions illustrate that *usability* improvements are influenced not only by visual appearance but also by task completion efficiency, ease of navigation, and clear information presentation (Lewis & Sauro, 2021) .

Thus, it can be concluded that the interface redesign results in an application that is more efficient, easy to use, and meets user needs (Sudirjo et al., 2024; Abimanyu & Sutopo, 2024) . In addition to interface improvements, users also expect the development of features such as *copying account numbers*, card management, and managing favorites lists to support daily banking activities. This shows that the quality of mobile banking services is not only determined by visual aspects, but also by the completeness of features, ease of use, and the overall user experience (Abbas et al., 2024; Frans et al., 2024). These factors are important components that influence the acceptance and continued use of mobile banking services (Pande & Bharathi, 2020).

CONCLUSION

Based on the research results, the use of System Log Data combined with user interviews has proven to be able to identify the problems of the STAR Mobile Banking

application more comprehensively, both in terms of usage patterns and user experience. The application of the Design Thinking method provides a systematic approach in the interface redesign process, starting from identifying user needs, formulating solutions, creating prototypes, and evaluating them through two iterations. The results of the study indicate that the proposed interface design is able to improve the efficiency of transaction flows, ease of finding features, comfort of use, and suitability of the application to user needs, so that the resulting prototype can be a reference in the development of STAR Mobile Banking in the future. Therefore, the Bank is advised to implement the design results in stages based on the priority of user needs, conduct System Log Data analysis and collect user feedback periodically, and continue to involve users in every stage of application development and testing so that the resulting solution is increasingly relevant, effective, and able to improve the quality of digital banking services.

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