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Improving Customer Engagement with Digital Gift Features in Mobile Banking Using Design Thinking Stages

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ABSTRACT

Keywords: digital gift, mobile banking, design thinking, gamification.

Among the challenges faced by conventional banks is the provision of banking services that can compete with digital banks. Mobile banking is one of the banking services in the form of an application that can be a tool to compete through the development of relevant, attractive, and effective features or services to meet customer needs. People have a habit of giving gifts to each other adopting the value of the spirit of giving in social life, especially at special moments. Digital gifts are a new trend to be able to send gifts to each other without the need to meet face-to-face. The development of digital gift services in mobile banking is the result of observing customer needs using the Design Thinking stage to obtain solutions to these problems. The addition of gamification elements to the development of digital gift services is expected to increase customer engagement and increase customer retention. The data collection method is in the form of a survey of customers. This research is a qualitative research that describes the needs of customers for digital gift services. This research was conducted from January to May 2024. The respondents of this study are customers who have been actively using mobile banking.
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Introduction

Bank Indonesia (BI) launched the National Non-Cash Movement (GNNT) on 14 August 2014 to create a safe, efficient, and smooth payment system. In turn, this will be able to encourage the national financial system to work effectively and efficiently. GNNT is also expected to be able to minimize obstacles in cash payments, such as money not being received because it is shabby/torn/unfit for circulation, and increase efficiency during transactions where people do not need to carry large amounts of money (Hanim, 2016). Thus, it can increase the effectiveness of transactions, namely

avoiding calculation errors or human error. In the end, GNNT will be able to realize a cashless society ecosystem (Bank Indonesia, 2014).

Along with efforts to improve GNNT, BI realizes that the payment system needs to adapt to the presence of digital technology. For this reason, BI has issued the Indonesian Payment System (SPI) 2025 blueprint, one of which has the vision to support banking digitalization as the main institution in the digital economy finance, both through open banking and the use of digital technology and data in financial business. (Sari et al., 2024).

The latest Bank BRI digital financial application is based on internet data which makes it easy for BRI customers and non-customers to be able to transact with the latest User Interface and User Experience. This application has login face recognition, fingerprint login, GoPay top-up, QR payment, and other interesting features. (Zafirah & Tandos, 2021). In addition, the choice of Source of funds/source of funds for each transaction can use a Current Account/Savings account. The purpose of developing the latest version of the BRI Mobile Banking application is to prepare a new business model in the future, adjusting to the shift in customer habits that previously transacted through BRI work units, then switched to ATM and SMS Banking, and it is hoped that in the future all customers will start transacting through internet banking. (Chakti, 2019). How to register for BRImo and activate the latest BRImo Mobile Banking application is very easy and can be done directly through the BRImo application (BRI, 2023).

In Indonesia, the custom of giving gifts to each other has adopted the value of the spirit of giving in social life, especially at special moments such as New Year, Eid, Christmas, Birthday, and Chinese New Year. (Lawati, 2024). To enter this culture, a new trend needs to be created so that they can send gifts to their loved ones without the need to meet face-to-face. According to the 2021 Global Gift Card survey, the gift card-giving market in Indonesia will grow rapidly from $1,365.7 million in 2020 to $2,302.6 million in 2025. Not only that but because Indonesian people are increasingly accustomed to online transactions, the demand for digital vouchers has also increased. Compared to other product categories that tended to decline during the pandemic, the purchase of credit and digital vouchers on e-commerce channels increased by 4% from 2019 to 2020 (Chakti, 2019).

Current banking services can be used as a form of giving gifts in the form of transfers using mobile banking or in the form of certain physical cards using E-Money. There is a problem faced by banks with the transfer service on mobile banking, namely the possibility of customers transferring as a form of gift with a recipient at another bank, which causes the potential loss of deposits of the sending bank. (Sartika, 2023). Other services are in the form of E-money cards that can be used as a form of gift but have weaknesses in the form of physical cards that can be transferred and the potential for damage or loss that causes losses for customers and issuing banks. (Sya'idah & Jauhari, 2022).

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The objectives to be achieved from this research are as follows:

1. To find out and identify customer behavior related to the digital gift feature in mobile banking.
2. To find out the types of gamification that can be applied in the development of digital gifts in mobile banking.
3. To test the prototype of the digital gift feature service in mobile banking.

Method

This research activity begins with problem identification and formulation, literature study, data collection, solution design, prototype making, and testing, and ends with thesis preparation. Problem identification is carried out by observing current conditions, especially related to the need for digital gifts for customers or the community, technological advances, and facilities owned by customers.

Furthermore, literature studies are carried out, especially those related to digital gift services in the community. The literature studied includes the results of previous research published in journals, theses, and other literature. The results of the literature study concluded that increased engagement can be achieved through the development of service features in BRImo mobile banking in the form of digital gifts. The research methodology used in this study is the Design Thinking approach. Design Thinking is a user-centric framework and consists of five stages: empathize, define, ideate, prototype, and test. This methodology was chosen because of its ability to produce solutions that are based on an understanding of the user's needs and perspectives.

Stages of Design Thinking

The first step of research using the Design Thinking stage is Empathize. At this stage, research in the form of a questionnaire was conducted on BRI customers who actively use BRImo mobile banking to find and understand the problems that exist in customers and customer needs. The following are the main components that the researcher will ask through a questionnaire to customers:

1) Who are the customers of mobile banking users in this study, such as gender, age, occupation, and characteristics of mobile banking use activities?
2) What do customers know or have insight into the existence of digital gift services?
3) What do customers feel when given a mockup of digital gift services in mobile banking? This helps researchers to better understand the needs, wants, and motivations of customers.
4) What preferences or motivations does the customer convey in the digital gift service? This helps researchers to understand and determine whether or not gamification elements are needed in the development of digital gift services in mobile banking.

This primary data collection was carried out in March and May 2024 involving BRI customers who have used BRImo mobile banking. In the 2022 BRI Annual Report, it was stated that the number of BRImo users reached 23,850,000 users. This study involved a minimum of 100 respondents as a sample (margin of error of 10%) with calculations using the Slovin formula as follows:

$$n = \frac{N}{1 + Ne2}$$

Information:
n = sample size
N = population size
e = margin of error (in decimal form)

The N value is 23,850,000 with e = 10%, then the minimum sample result of 100 respondents is obtained.

The questionnaire was submitted to respondents in the form of initial images or mockups of digital gift service features on BRImo mobile banking. The existence of this simple mockup is to help respondents with digital gift services through BRImo mobile banking and it is hoped that it can provide good feedback on the needs, desires, and motivations of respondents. Here is the initial picture given to the respondents:

1. Login to the BRImo mobile banking application
2. Select the lifestyle menu, the menu appears on the initial display or the menu list display
3. Select a Digital Gift service
4. Select the source account, determine the nominal Digital Gift, select the Digital Gift claim period for the recipient, select the Digital Gift Design, and then select OK
5. Confirm the transaction
6. Input PIN
7. Successful transaction
8. Share Digital Gift

Results and Discussion

Respondent profiles provide a demographic overview which includes gender, age group, profession or occupation, respondents' activities in using BRImo mobile banking, and respondents' knowledge related to digital gifts.

Respondent Profile Based on Digital Gift Service Interaction Experience

Some respondents have never had the experience of giving gifts to others online or digitally, as many as 52 respondents (50.5%) and as many as 51 respondents (49.5%) have given gifts digitally or online.

Table 1
Respondent Profiles Based on Experience in Giving Digital Gifts

Question No.4			
No.	Have you ever given *a gift* or gifts to others in a *Online / Digital*?	Sum	Percentage (%)
1	Never	52	50,5%
2	Ever	51	49,5%
	Sum	103	100%

Respondent Profile Based on BRImo Usage Activities

The selected respondents are BRI customers who have activated and used BRImo mobile banking. The majority of respondents have actively used BRImo mobile banking for financial transactions as many as 102 respondents (99%) and only 1 respondent stated that they are not actively using BRImo mobile banking.

Table 2
Respondent Profiles Based on Activities Using BRImo

Question No.5			
No.	Are you an active user of *BRImo* mobile banking?	Sum	Percentage (%)
1	Not	1	1%
2	Yes	102	99%
	Sum	103	100%

The majority of respondents actively use BRImo mobile banking as many as 47 people (46%) with a frequency of use more than 30 times a month. Then as many as 24 people (23%) use BRImo mobile banking with a frequency of 21-30 times a month. There was 1 person (1%) who said that they used it with a frequency of 1 time a month and were respondents who said they were not active in using BRImo mobile banking in the previous question.

Table 2
Respondent Profile Based on the Frequency of BRImo Use

Question No.6			
No.	**Frequency**	**Sum**	**Percentage (%)**
1	> 30 times a month	47	46%
2	1 time in a month	1	1%
3	11 - 20 times a month	22	21%
4	2 - 10 times a month	9	9%
5	21 - 30 times a month	24	23%
	Sum	**103**	**100%**

3 features are often used by respondents in using BRImo mobile banking, namely the Top Up feature (Brizzi, E-Wallet, Credit/Data) as many as 95 respondents (92.2%), the Bill feature (BRIVA, Electricity, BPJS, Credit Card, Installments, PDAM, Education, Insurance, KAI, PBB). Telkom, Signal, Regional Tax, State Revenue,

Postpaid, Cable TV & Internet) as many as 83 respondents (80.6%) and the Cash
Deposit / Cash Withdrawal feature as many as 76 respondents (73.8%).

The 5 features on BRImo mobile banking that are rarely used by respondents are
the BRI Product feature (Ceria, IBBIZ, Vehicle Pawn, Open Tabungan Raya, QR
Merchant, Become a Merchant) as many as 1 respondents (1%), then the Insurance
feature and the Foreign Exchange Conversion feature each as many as 3 respondents
(2.9%), the Loan feature as many as 9 respondents (8.7%), and the Lifestyle feature
(Travel, Game Voucher & Streaming) as many as 10 respondents (9.7%).

Respondents' Preferences for the Development of Digital Gift Services

To measure the needs and desires of respondents for the digital gift feature in
BRImo mobile banking, questions related to the existence of the digital gift feature with
the current needs of respondents were submitted. The majority of respondents (44.6%
(as many as 46 respondents) gave a score of > 8 and 8.7% (9 respondents) gave a score
of < 7. The remaining 48 respondents (46.6%) gave a score of 7 and a score of 8.

Table 3

Respondents' preferences on the need for digital gift services

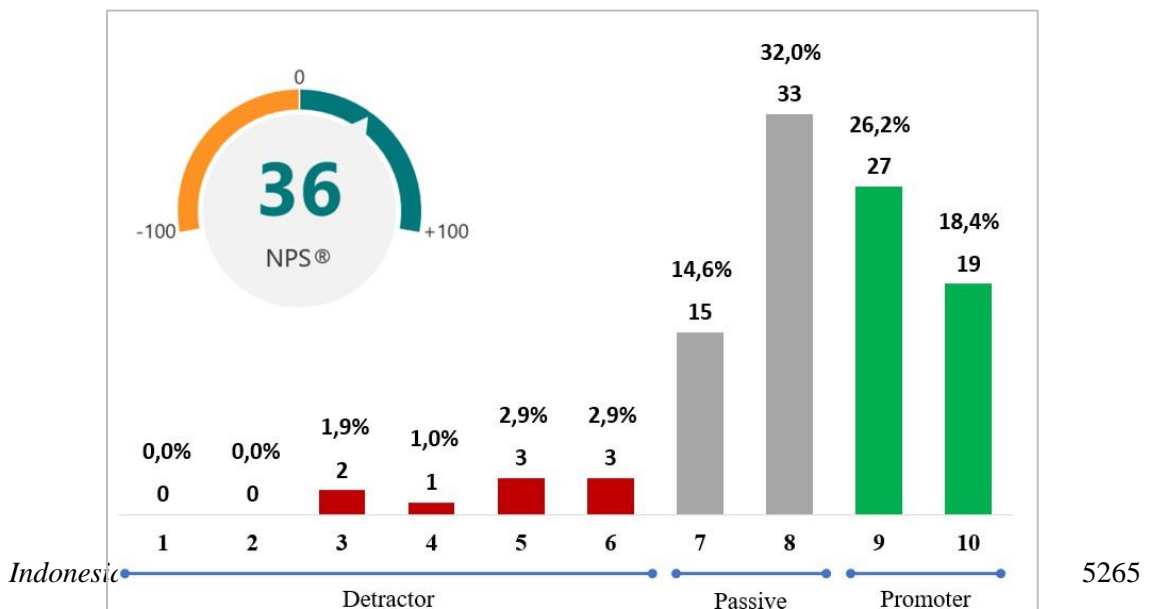| Question No.9			
No.	How much do you think there is a need for a *digital gift* service at BRImo?	Sum	Percentage (%)
1	1 (Absolutely unnecessary)	0	0,0%
2	2	0	0,0%
3	3	2	1,9%
4	4	1	1,0%
5	5	3	2,9%
6	6	3	2,9%
7	7	15	14,6%
8	8	33	32,0%
9	9	27	26,2%
10	10 (Essential)	19	18,4%
		Sum 103	100,0%

Figure 1
NPS value of whether or not digital gift services are necessary at BRImo

The NPS (Net Promoter Score) score of 36 is included in the great category (score 30 - 70), meaning that the majority of digital gift services on BRImo mobile banking are needed by respondents. After providing an overview of the digital gift service through a mockup, then respondents gave an assessment of the service in the form of a rating. The average rating for digital gift services is based on the appearance of a mockup of 8.69.

Define Stages

In this defining stage, the author formulates the main needs of the respondents in the form of a feedback capture grid and maps in outline what the respondents want and expect.

Feedback Capture Grid

The feedback capture grid will show what has been running (Likes), what is expected to be improved next (Wishes), questions that arise after seeing the process flow and initial mockups (Questions), and finally there are new ideas that can be raised (Ideas). The following are the results of the feedback capture grid from the data obtained previously:
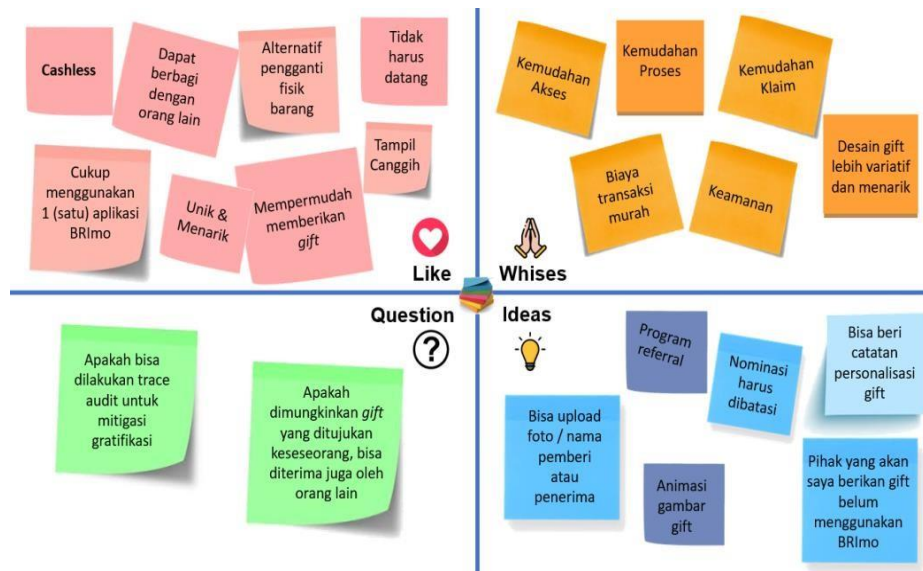
Figure 2
Feedback Capture Grid Digital Gift

Development of Digital Gift Feature Services on BRImo Mobile Banking

2 (two) things are considered in the development of digital gifts in BRImo mobile banking, namely from the side of digital gift-givers and digital gift recipients. Digital gift-givers are customers who have actively used BRImo mobile banking, while for digital gift recipients, there are 3 (three) scenarios based on BRImo mobile banking activation and deposit account ownership at BRI.
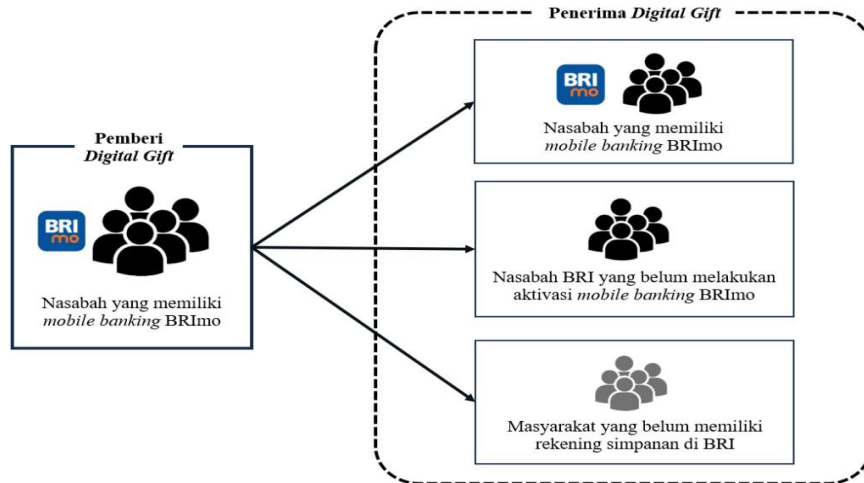
Figure 3
Givers and Recipients of Digital Gifts

Prototype for Digital Gift Claim Process

The process of claiming digital gifts using the BRImo mobile banking application has 3 scenarios based on the condition of the digital gift recipient with the following explanation:

a. The claim process for digital gift recipients who already have BRImo mobile banking. The flow of the claim process is shorter and faster with the following steps:
  1. Receive a digital gift with information on the image of the gift moment, the nominal gift, the claim expiration date, and the claim link.
  2. BRImo application login
  3. Digital gift information appears, select digital gift claim
  4. Digital gift successfully claimed and credited to the main savings account
  5. Back to BRImo main page
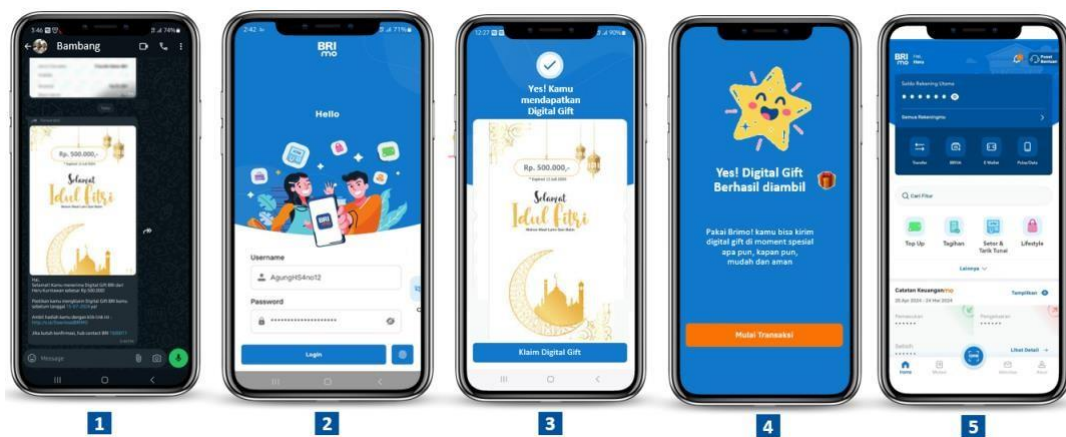
Figure 4
Prototype claim for digital gift recipients who already have

BRImo mobile banking

b. The claim process for digital gift recipients who have a savings account at BRI but have not yet activated BRImo mobile banking by visiting BRImo activation first. The process flow and prototype are as follows:

1. Receive a digital gift with information on the image of the gift moment, the nominal gift, the claim expiration date, and the claim link

2. Select "Yes, I Have a BRI Account"

3. Information in the form of documents that need to be prepared for the next process

4. The process of taking a photo of an ID card

5. Check your ID card data and fill in your data
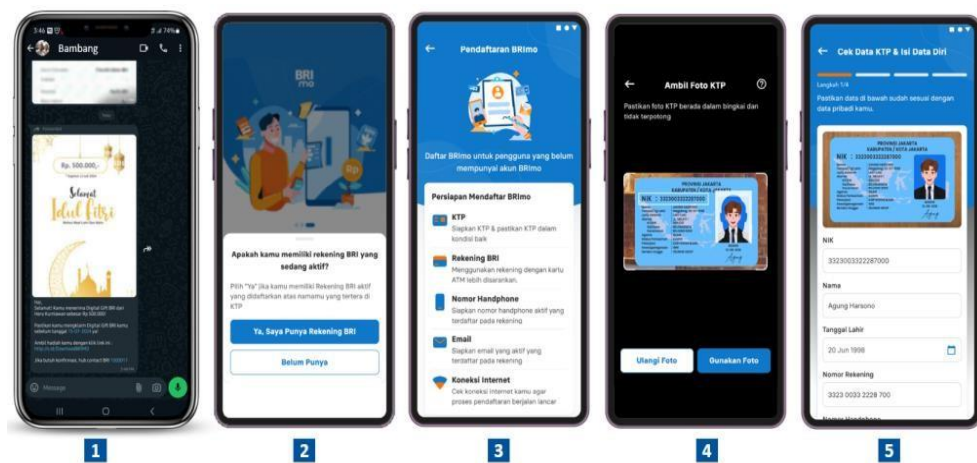
Figure 5
BRImo mobile banking account activation prototype

6. Verify the mobile number with a 6-digit OTP input sent to the registered mobile number

7. Verify your email by checking a message containing a verification link

8. Face verification

9. Create a username with a combination of letters and numbers, then a password with a combination of uppercase letters, lowercase letters, numbers, and symbols
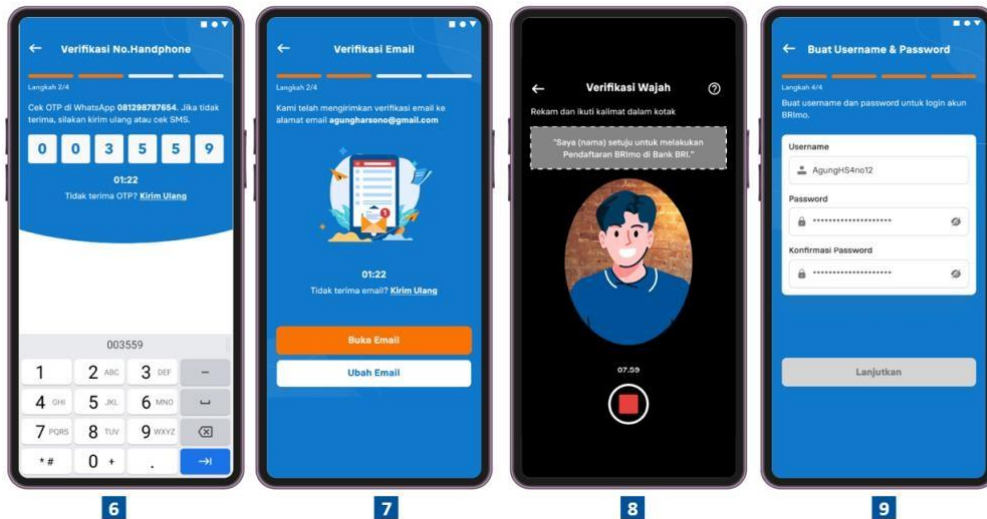
Figure 6
BRImo mobile banking account activation prototype (continued)

10. Create a 6-digit PIN code

11. Notification notification that BRImo mobile banking activation has been successful, then select "Claim Digital Gift"

12. Digital gift successfully claimed and credited to the main savings account
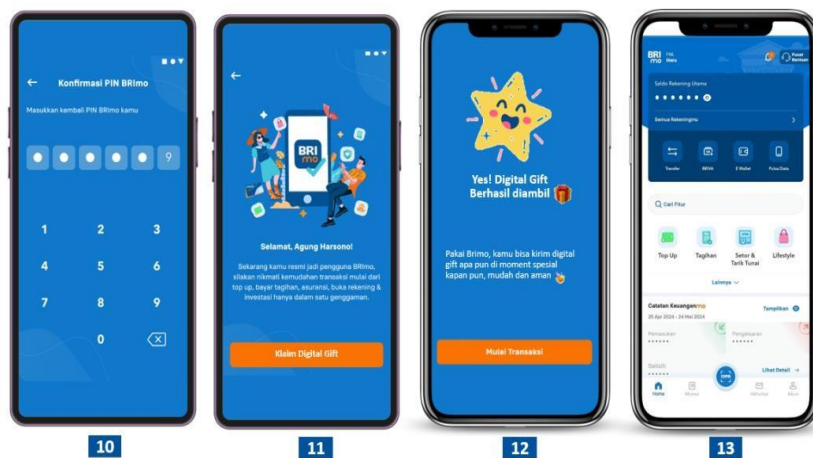
13. Return to main page

Figure 7
Prototype of digital gift claims for recipients who have not yet activated BRImo mobile banking

c. The claim process for digital gift recipients who do not have a deposit account at BRI, the recipient must first open a deposit account and activate it on BRImo mobile banking. The process flow and prototype are as follows:

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1. Receive a digital gift with information on the image of the gift moment, the nominal gift, the claim expiration date, and the claim link. Click the claim link and then install the BRImo mobile banking application first

2. Open the BRImo application, then select "Not Owned"

3. Select the type of savings product and select "Select Savings"

4. Choose the BRI office closest to the customer
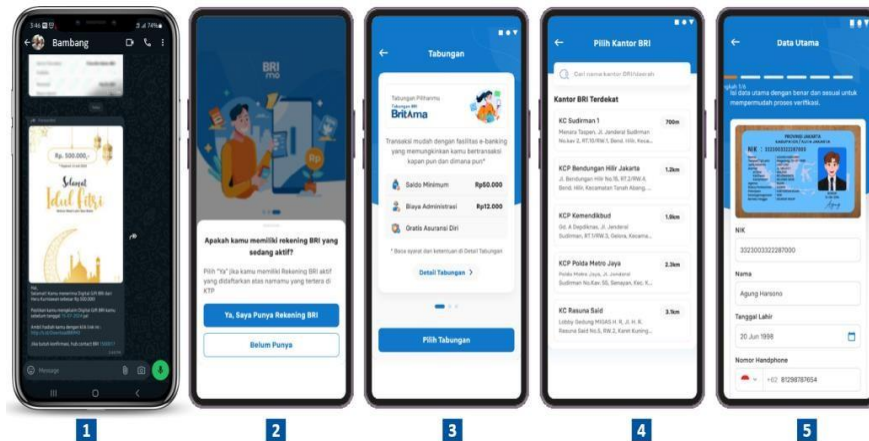
5. Check your ID card data and fill in your data

Figure 8
: Prototype of creating an account using mobile banking
BRImo

6. Verify the mobile number with a 6-digit OTP input sent to the registered mobile number

7. Verify your email by checking a message containing a verification link

8. Face verification

9. Confirm account opening data

10. Submit the terms and conditions as a customer and user of the BRImo application, then select "Continue"
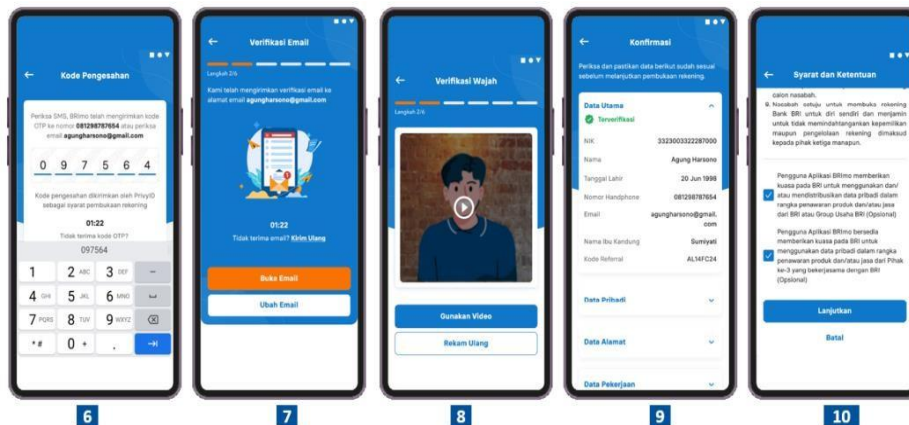

Figure 9

Prototype of account creation using BRImo mobile banking (continued)

11. Create a 6-digit PIN code

12. Notification notification that BRImo mobile banking activation has been successful, then select "Claim Digital Gift"

13. Digital gift successfully claimed and credited to the main savings account
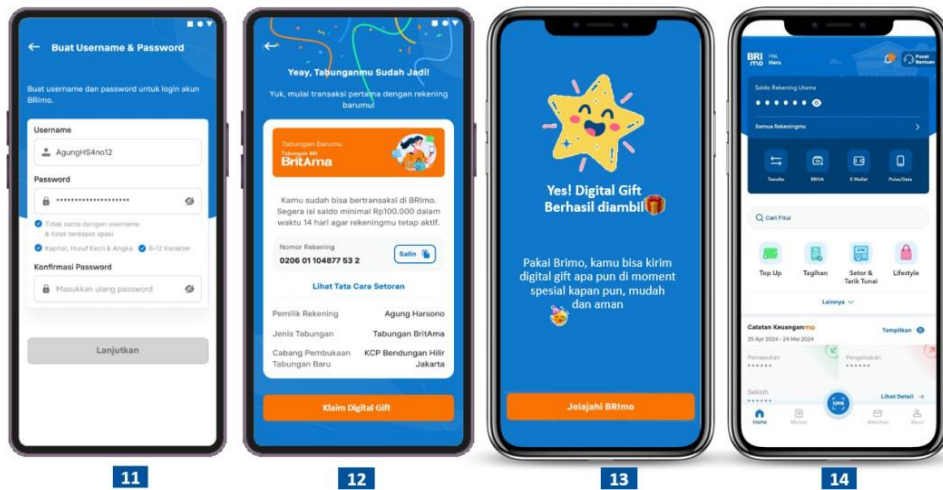
14. Return to main page

Figure 10
Prototype of digital gift claims for recipients who do not have a deposit account at BRI

Feedback

After completing the test on the given prototype, then the respondents filled out a questionnaire to get feedback. The results of the survey on testing are as follows:
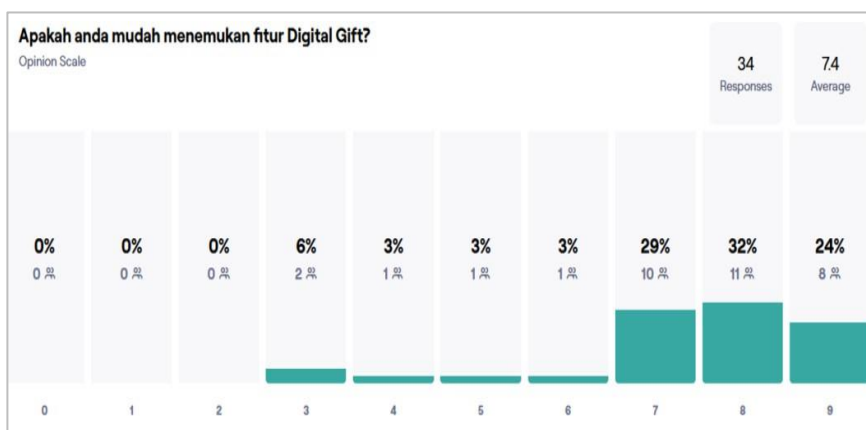
1. Ease of finding *digital gift features*

Figure 11
survey of the ease of finding digital gift features

The figure shows that the majority of respondents (56%) gave scores of 8 and 9, meaning that respondents think that the digital gift feature on BRImo mobile banking is quite easy to find.
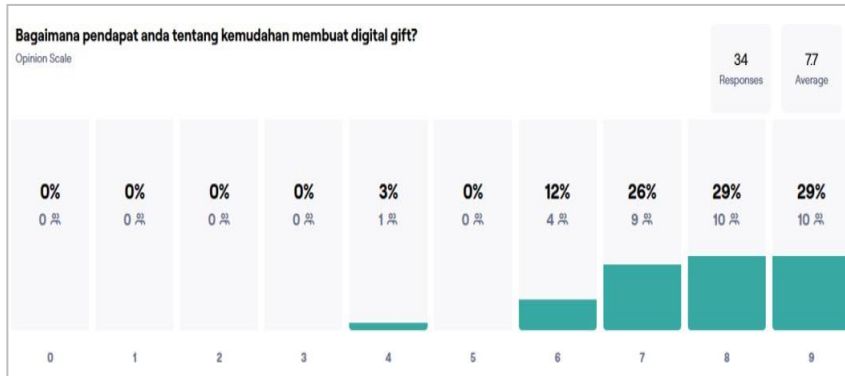
2. Ease of making digital gifts

Figure 12
survey on the ease of making BRImo digital gift mobile banking

The majority of respondents (58%) gave scores of 8 and 9 which showed that respondents were easy to make digital gifts on BRImo mobile banking.
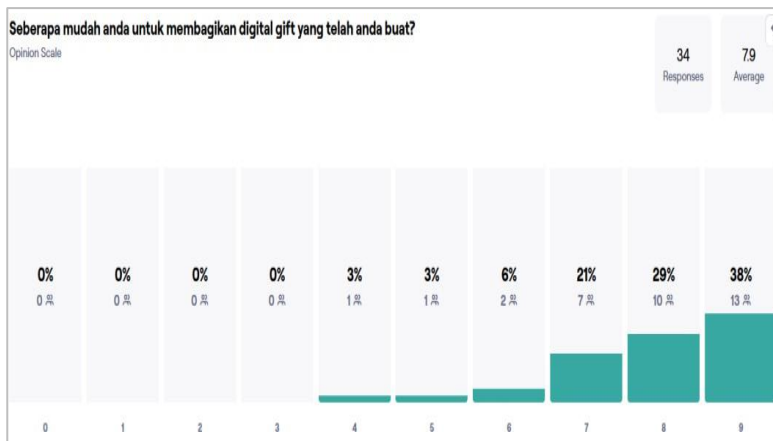
3. Ease of giving digital gifts

Figure 13
survey of the ease of giving digital gifts

The figure shows that the majority of respondents (67%) gave scores of 8 and 9, which means that respondents are easy in giving *digital gifts* that have been made through *BRImo mobile banking* to others.
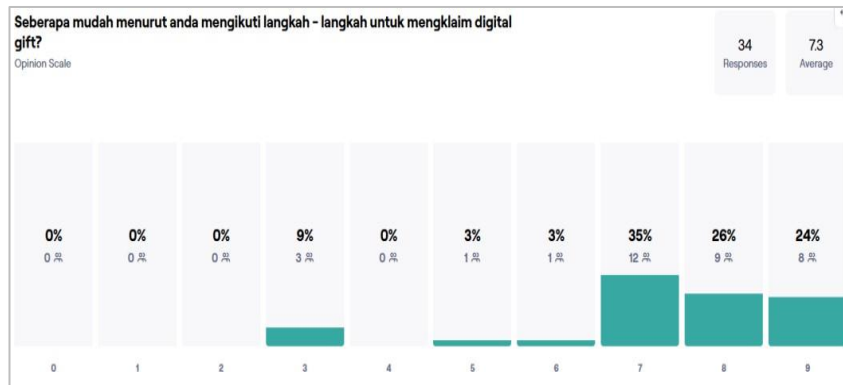
4. Ease of making *digital gift claims*

Figure 14
Survey on the ease of digital gift claims

Some respondents (50%) gave scores of 8 and 9 which showed that respondents found it easy to claim digital gifts that had been received using BRImo mobile banking.

Conclusion

This study shows that by using the Design Thinking theory, the process of getting information on the needs of BRImo users related to digital gift services is going well. The core needs identified are as follows. Customers need an alternative gift that is not physical, cashless, and does not require them to meet the recipient in person. In addition, they want this service to be available in one BRImo mobile banking application only for convenience, considering that currently the service is not available on the BRImo application and customers must use digital gift services from other products outside the BRImo application. Customers also expect gift designs that include various important moments such as birthdays, religious holidays (e.g. Eid al-Fitr, Christmas, Nyepi, Chinese New Year, and Vesak celebrations), graduations, childbirths, competition appreciation, and job mutations or promotions. Not only that, customers need digital gift services that can be given to the public, both those who already have a BRImo mobile banking account and those who do not. Based on this study, the researcher concluded that the prototype developed consisted of three main parts, namely a prototype for the digital gift-making process, a prototype for the digital gift-claim process, and a prototype for gamification elements.

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