Sri Lanka Institute of Information Technology

A picture containing text, clipart

Description automatically generated

User Research Plan

Group No - 2021S2\_REG\_WE\_26

**Year 3 Semester 2, 2021**

|  |  |  |
| --- | --- | --- |
|  | **Student Registration Number** | **Student Name** |
| **1** | IT19017334 | Bandara W.A.I.U. |
| **2** | IT19028156 | Kuruppuarachchi K.A.D.K.S. |
| **3** | IT19016108 | Alwis T.A.D.T.N.D. |
| **4** | IT19026480 | Maduwantha N.N.D. |

**User Experience Engineering – SE3050**

B.Sc. (Hons) in Information Technology

**Introduction**

We've decided to update to the BOC smart passbook mobile application. It's an electronic version of a regular passbook / current account statement that lets you view your account balances and transaction data in real time, from anywhere.

We have tested the functionalities and user interfaces of the application by conducting user research interviews and questionaries because according to our reviews most of users have given negative feedback for this application and we needed these ideas for improving the user experience of this application. So, by conducting these user research testing we hope to achieve the accuracy of our decisions that we have made regarding this application in order to enhance the usability of the same.

**Test Objectives**

* Correctness of Functionalities
* Authentication
* Security of the Application
* Ensure the User Experiences
* Provide right Solutions to the selected Personas
* Determine the functionalities that need to be added
* Identify the existing project information and flow
* Identify the required resources
* Identify the accuracy and trust worthiness of the application
* Determine the level of User Friendliness

**Methodology**

We have planned to conduct two user research programs. One as a Google form questionnaire and the other one as an online interview.

**Google form questionnaire**

We will conduct the user research for the BOC Smart Passbook via Online Platform through Google forms. Google form will cover all the functionalities that are already in the system and the newly added functionalities. Questionnaire is created in a user attractive manner.

Since we are going to conduct the user research via online platform, we have planned to distribute the form among hundred university students.

**Online interview**

We have divided the whole mobile application into four main functionalities. In order to cover the four functionalities, we conducted two interviews. In the first interview we had discussed the questions that are relevant to the online bill payment facilities and online loan facilities. From the second interview we have discussed questions that covers the

We have conducted both two interviews via online platform, through Zoom meetings. All four group members were participated for both interviews with the guest.

**Interviewing**

Interview Recording Link – <https://mysliit-my.sharepoint.com/:v:/g/personal/it19017334_my_sliit_lk/Efa16Ueof0NJt1TfU8AXN04BSCBudfZ9ZEeG-0jdPacH3w?e=sTlwhW>

Interview 1 Script (Covering the fund transfer facility and user authentication and registration)

**Question**

IT19017334 – Bandara W.A.I.U.

Q1: Do you have experienced mobile banking facilities?

Q2: Would you familiar with BOC Smart Passbook?

Q3: How was your experience with that application?

Q4: As we know even the BOC bank also, they are maintaining two different mobile applications. One is for e passbook and other one is for e banking. Do you think, using two different application for online banking is convenient?

Q5: If we implement a single application for mobile banking. What type of features, you like to see in that application?

Q6: If we think about a Fund transfer facility, what type of fund transfers do you probably wants to use in that application.

Q7: How often do you transfer funds per month?

Q8: Do you think online fund transfer is safe?

Q9: Say, for example, if you made an online fund transfer, it would give us a confirmation after proceeding. Do you think this confirmation is needed? If so what type of confirmations would you prefer to see after a transaction.

Q10: Would you think it is necessary to have an interface to view the fund transaction history?

Q11: If so, what is the minimum time duration requires, if you give a chance to see your fund transaction history?

IT19026480 – Maduwantha N.N.D.

Q12: Would you like to call or visit to the bank to set up mobile banking feature for your bank account?

Q13: What do you think about the login and registration interfaces of the application when it compared to other applications that are using on your mobile?

Q14: What do you think about the transaction history interface? Is it okay to load the interface in landscape mode?

Q15: How often you check your bank transaction history?

Q16: Is it enough to having only three-month transaction history from the application?

Q17: Most people complaint about the data fetching problem, such as not loading the current day transactions even after doing multiple logins. Have you ever faced that kind of problem in using this application? (Update)

Q18: Have you received the OTP codes on time when making login to the application?

Q19: What other facilities would you think that is nice to have in this application when registering? (Ex: Fingerprint or pass code access to the application)

**Task**

Q20: So that’s all about the questions. Could you please share the BOC passbook application screen and perform some tasks for us?

Q21: Could you please navigate to the transaction history and show the last three months history?

Q22: As our findings, user can change the pass code also. Could you please update your pass code if it is possible?

Interview 2 Script (Covering the loan apply facility and bill payment facility)

**Questions**

IT19016108 - Alwis T.A.D.T.N.D.

Q1: So, would you familiar with mobile banking Application?

Q2: Are you familiar with BOC smart passbook?

Q3: If we do like as you say what type of features, you like to see in that application?

Q4: If we think about loan service, what are the main features that you accept from this app?

Q5: Assume that there is a page that included with all kinds of loan information, do you think that will be help for you to continue the process?

Q6: Imagine As a customer you are going to submit your loan application and you need to know whether you are submitted it correctly or not, so as a proof what do you need from the system?

Q7: If you are applying a loan through our online loan service, what kind of a loan that you are going to apply for?

Q8: Do you trust the loan service through online?

Q9: If we provide the facility to cancel a loan application that is already submitted, what would be the time period that you prefer to have from the applied date to cancel the application?

Q10: Do you think online loan service will save your time and make your works easy?

IT19028156 - Kuruppuarachchi K.A.D.K.S.

Q11: Did you ever have paid the bills online?

Q12: What are difficulties that you have faced when you pay bills online?

Q13: How often you pay the bills?

Q14: Do you think these bill payments from online through mobile banking application is cheaper than traditional bill service?

Q15: Do you think these bill payments from online through mobile banking application is cheaper than traditional bill service?

Q16: Do you trust the bill payments through online?

Q17: Reasons for previous answer

Q18: If we enabled the bill payment feature, what other facilities would you think that is nice to have in this application when pay the bill? (Ex: save the bills, see the payment history)

**Task**

Q19: So, give us your opinion while you are using application, if we add these apply loan and bill payment options, what is the path you think that will be easy to you to navigate to those options after login?

Can you do a small demonstration to get us an idea?

* Can you please view the last 3-month transactions from your Account?
* So, addition to these things do you have any suggestions to improve this application?

**Questionnaire**

BOC Smart Passbook Application

The following survey will collect the feedback of users regarding the BOC smart passbook application to upgrade. It is an electronic version of the traditional passbook / current account statement, which allows you to download and check your account balances and transaction details real-time, anywhere, anytime.

If you haven't used an app like this before, please share your thoughts and comments on what you would anticipate from an online banking application. Your replies will be kept private and used solely for statistical reasons. Thank you for your assistance.

\* Required

Demographic Data

This section focus on entering demographic details of the user

1. What is your age? \*

*Mark only one oval.*

Less than 16

16-25 years

25-45 years

45-55 years

55-75 years

More than 75

1. What is your occupation? \* *Mark only one oval.*

Employed

Not Employed

Self Employed

Student

Retired

Disabled, not able to work Other:

1. What is your marital status? \* *Mark only one oval.*

Married

Single

# Customer Overall Experience

1. What type of methods do you prefer for banking ? \*

*Check all that apply.*

Visit to the bank

Mobile Banking

Online Banking

Other

1. Do you have access to the internet? \*

*Mark only one oval.*

Yes, I have a broadband connection.

Yes, I have a mobile connection

Yes, I am using internet from public internet points.

No

1. Have you performed any of the following activities from a mobile banking app? (Please check all that apply) \*

Other:

*Check all that apply.*

Tax filing

Purchased/sold financial product (e.g., stock, bonds)

Pay Bills

Transfer Money

1. Do you have any experience of using BOC smart passbook? \*

*Mark only one oval.*

Yes

No

1. If so, what was your experience? \*

*Mark only one oval.*

Very dissatisfied

Dissatisfied

Satisfied

Very Satisfied

# Money Transfer

This section focus on money transfer facility to implement in this application

1. Your Monthly Income ? \*

*Mark only one oval.*

Less than Rs.20,000

Rs.20,000 – Rs.40,000

Rs.60,000 – Rs.80,000

Rs.80,000 – Rs.1000,000

More than Rs.100,000

1. What do your mostly preferred method for transfer money. \*

Other:

*Check all that apply.*

Visit the bank and make transaction

Mobile fund transfer facility

eZ cash

iPay

UPay

1. Which type of fund transfers do you personally use? \*

Other:

*Check all that apply.*

Own account money transfer

Third party money transfers

National Electronic Fund Transfer

Cheque

All

1. Do you think online fund transfer is safe?

*Mark only one oval.*

Yes

No

Maybe

1. How often do you transfer funds per month?

*Mark only one oval.*

* 1. – 2 times
  2. – 3 times
  3. – 5 times

More than 5

Not using

# Bill Payment

This section focus on Bill Payment facility to implement in the application

1. What types of bills that you are willing to pay through online? \*

Other:

*Check all that apply.*

Telephone Bills

Electricity Bills

School Fees

Water Bills

1. Do you think these bill payments from online through mobile banking application is cheaper? Than traditional banking service? \* *Mark only one oval.*

Yes

No

Maybe

1. Are you trust the online mobile banking bill payment services? \*

*Mark only one oval.*

Yes

No

Maybe

1. According to your thought how long of time period do you want to see the bill payment history? \* *Mark only one oval.*

Last 4 month

Last 6 month

Last 12 month

More than 12 months

1. According to your preferences how do you need to see the saved bills in the application? \*

*Mark only one oval.*

In a Table view

In a gallery view

In an Essay Description

# Loan Apply

This section focus on functionalities regarding the Apply Loan facility to be implement

1. How do you rate ease of access and usefulness of an online loan service?

*Mark only one oval.*

1 2 3 4 5

Excellent

Poor

1. Have you taken a loan before online? \*

*Mark only one oval.*

Yes

No

1. Do you think the BOC smart passbook should update with the online loan service? \*

*Mark only one oval.*

Yes

No

Maybe

1. When you think about the customer information form for apply loan, what are the most needed options/fields? \* *Mark only one oval.*

Dropdowns

Check Boxes

Input fields

Text Areas

1. According to your preference what should be the most suitable way to display information about different loan services? \* *Mark only one oval.*

In a table view

In a gallery view Essay description Other:

1. What should be the most suitable color themes user preferred? \*

*Mark only one oval.*

Dark Background with light letters Light Background with Dark letters

Other:

1. Do you think online loan service is better than the manual process? \*

*Mark only one oval.*

Yes

No

Maybe

1. Why you think online loan service is better than the manual process?

# User

Registration

This section focus on functionalities regarding user registration and authentication

of the application

1. Do you think BOC Smart Passbook is having an attractive user registration interface? \*

*Mark only one oval.*

Yes

No

Maybe

1. Do you like the color theme of the current application? \*

*Mark only one oval.*

Yes

No

1. How do you rate the user-friendliness of the user registration section? \*

*Mark only one oval.*

* 1. 2 3 4 5

Excellent

Poor

1. Rate the security of the application when the user is login and registering to the system? \*

*Mark only one oval.*

* 1. 2 3 4 5

Excellent

Poor

This content is neither created nor endorsed by Google.

[Forms](https://www.google.com/forms/about/?utm_source=product&utm_medium=forms_logo&utm_campaign=forms)

**Participant Profiles**

|  |  |  |
| --- | --- | --- |
| Name | Demography | Location, Date and Time |
| Anonymous | A Marketing manager working in private company. | Via Zoom Technology  Date: 19.08.2021  Time: 8.30 p.m. |
| Anonymous | An Accountant manager working in private company | Via Zoom Technology  Date: 18.08.2021  Time: 9.30 p.m. |

**User Research – Tasks/Scenarios**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Task Instruction | Target | **Probs** |
| 01 | View the last 3-month transaction | View the 3-month transaction. | User struggled to view the transaction history since it was displayed in Landscape mode and also it cannot rotate the screen orientation. |
| 02 | User Login | Login into the application securely | User wondered why the security is less when login into the application. |
| 03 | Pay a Bill | Pay Bill through the application | Struggled with finding the location of option to pay the bill. |
| 04 | Apply a Loan | Apply a loan through application | Struggled with finding the location of option to apply a loan. |
| 05 | Change the pin | Change the pin and login again successfully | After taking some considerable time, the user was able to change the pin without any issue. |

**Plan for Data analysis**

|  |
| --- |
| **Interviews**   * According to the interviewees, it is clear that they are familiar with BOC smart passbook, but they are not satisfied with the existing application because of its failure points. * According to the interview, users tend to use online mobile banking facilities rather than the traditional banking services due to current pandemic situation and they are confident with the mobile banking facilities. * Even though BOC bank provides two separate applications for online banking and E-passbook, from the user’s perspective they are preferring single application to perform all the functionalities with   + Fund Transferring Option   + Bill Payment Option   + Loan Applying Option   + User Authentication * According to the interviewees perspective. It is clear that most of the users are willing to use the own account fund transfers and the 3rd party fund transfers options together with utility bill payments and the loan apply facility through this application. * due to below mentioned failures, interviewees are highly dissatisfied with the interfaces of the existing application.   + Screen orientation problem.   + Color mismatching problem.   + Alignment Issues.   + Compact list views. * Interviewees are expecting alerts to notify the confirmations to every action they perform through this application. * It is required to display the validation errors to the users when making submissions through the application. According to our interview, there is a clear requirement of redesigning the validation for the updated application. |
| **Questionnaires**    This pie chat shows that out of 40 respondents that completed our questionnaire, majority of the respondents (72.5%) were used the BOC smart passbook and 27.5% were not used.    This pie chat shows that out of 40 respondents that completed our questionnaire, majority of the respondents (42.5%) were dissatisfied with the user experience. Hence this application is needed to be updated for provide a better user experience.    This pie chat shows that out of 40 respondents that completed our questionnaire, majority of the respondents were making fund transfers. Hence this statistic is clearly mentions that fund transferring facility is a major requirement of the customers and needed to be implemented with the modified application.    This bar chart illustrates the money transferring method. The question was an open-ended question hence participants provided their responses in several meanings. The highest percentage (70%) of respondents are provided the Mobile fund transfer facility as the most preferred method while none of the participants were selected the UPay as the preferred money transferring method.  Overall, it is clear that the mobile fund transfer facility is needed to be implemented with the modified application.    This bar chart illustrates the types of fund transfers. The question was an open-ended question hence participants provided their responses in several meanings. The highest percentage (80%) of respondents are provided the Own account money transfer type as the most preferred fund transferring type. As the second most type, 35% percentage of respondents are provided their response as Third party money transfer.  Overall, it is clear that the Own account money transfer and the Third-party money transfer options are needed to be implemented with the fund transfer facility.    This pie chat shows that out of 40 respondents that completed our questionnaire, majority of the respondents (69.2%) were agreed with the safety of the online fund transfer. While 10.3% are not agreeing with the same. So, it is clear that most of the respondents were willing to have the fund transfer facility with the modified application.    This bar chart illustrates the types of bills. The question was an open-ended question hence participants provided their responses in several meanings. The highest percentage (77.5%) of respondents were willing to pay Telephone Bills through online. As the second most type, 65% percentage of respondents were willing to pay Electricity bills through online.  Since the above bills are regular bills. It is clear that the bill payment function is needed to be implemented with the modified application.    This pie chat shows that out of 40 respondents that completed our questionnaire, majority of the respondents (60%) were agreed that the bill payments through mobile banking is way cheaper than the traditional bill payment methods. Overall, it is worthy to implement this function with the modified application.    This pie chat shows that out of 40 respondents that completed our questionnaire, majority of the respondents (50%) were wanted to see the bill payment history for last 4 months period. It is clear that, this factor will enable to develop the bill payment functionality in a more efficient way.    This bar chart illustrates the level of access and usefulness of the online loan service. There are five main categories in the graph and each category is representing by a number. Number 1 represents – Excellent, Number 5 represents – poor.  According to the above statistics 33.3% of respondents are agreed with the usefulness of an online loan service. Whereas it is clear that accessing loan service facility through online is way easier than the regular method.    This pie chat shows that out of 40 respondents that completed our questionnaire, majority of the respondents (70%) were requested to update the BOC smart passbook with the online loan facility.    This pie chat shows that out of 40 respondents that completed our questionnaire, majority of the respondents (42.5%) were willing to have the check boxes as the selecting option. So, it is clear that most of the users preferred to have easier options to enter the required data rather than writing on input fields and text areas.    This pie chat shows that out of 40 respondents that completed our questionnaire, majority of the respondents (65%) were agreed with the online service is better than the manual process and further it will ensure that online loan service facility is needed to be implemented.    This pie chat shows that out of 40 respondents that completed our questionnaire, majority of the respondents (65%) were agreed with the light background with dark letters. Overall, it is clear that applying a light theme is more convenient than applying a dark theme.  Chart, pie chart  Description automatically generated  This pie chart illustrates the responses regarding the attractiveness of the current user registration interface. Among 40 responses 50% were negative responses towards the current user registration interfaces of the application. 17.5% of the respondents were seemed to be less aware about the current user registration interfaces. Considering about the majority of the responses, it is obvious that the current user registration interfaces must be re-designed when implementing the updated application.  Chart, pie chart  Description automatically generated  This pie chart displays how the 40 responses were distributed among the current theme of the application. 55% of the respondents were rejected the current theme which is an indication of a request for a new theme with the updated application. Even though 45% of the responses accepted the current color theme, as per the results of the survey, the proposed application must be implemented with a new color theme that matches with the purpose of the application and the current trend of the mobile applications.    This bar chart illustrates the user-friendliness of the user registration section of the current application by representing the numbers as the choices. Number 1 represents excellent and towards number 5 the excellent level become poor. It is clear that the users are not receiving a positive user experience from the current user registration section.    This bar chart represents the rating provided by the respondents regarding the security level of the login and registering function of the current application. Number 1 represents excellent and towards number 5 the excellent level become poor. As per the responses, 25% of the responses are in the right side of the satisfactory level which depits that the respondents are not satisfied with security provided by the current application. Therefore, proper attention have to be given towards the security of the proposed updated application. |
|  |