

Users' Perception on the Pragmatic Comfort of a Mobile eWallet Application

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Abstract

This research reports on the study conducted to capture users' perception on the pragmatic comfort of a mobile eWallet application commonly used in Malaysia, Touch 'n Go eWallet app, The evaluation was carried out in Universiti Malaysia Perlis (UniMAP) and Politeknik Tuanku Syed Sirajuddin (PTSS), Perlis, Malaysia. Fifteen staffers were recruited as participants to ascertain the level of perceived pragmatic comfort in the application. The outcome of the assessment indicated that the application is generally comfortable and pleasant to use. However, a number of issues that cropped up from users feedbacks shows that some gray areas in the application demanded attention and required fixing.

Keywords: eWallet application, pragmatic comfort, touch 'n go, usability evaluation; user perception.

1. Introduction

Pragmatic comfort is the goal of all usable, useful and functional applications. It describes the comfort or satisfaction that users derive from interacting with an application that produces their desired results and enables them to successfully accomplish their tasks and meets their goals. Users expect a positive experience from the mobile applications they interact with. Where these applications do not provide the desired comfort in use, users are generally frustrated and are very likely to abandon the application to a better alternative. This is especially the case in a competitive environment with varying competing products. To ascertain the pragmatic comfort of an app, usability evaluation is often employed. Products that offer pragmatic comfort are generally easy and simple to learn, access and use; they are not costly to use in terms of user time and efforts. They are also free from user errors and where such errors minimally abound, users easily recover from them. Usability assessment for mobile apps is highly prized for designers, developer, and end users [1-8]. Hence, a usability evaluation of the Touch 'n Go eWallet mobile app is greatly recommended to obtain users' feedback on the degree of apps comfortability and acceptability-in-use. The Touch 'n Go eWallet mobile application is an integrated mobile app that uses the physical Touch 'n Go Card. It enables users to add in Physical Touch 'n Go card number easier to track transaction. The app offers the following functionalities and facilities: i) money transfer to other users of Touch 'n Go eWallet; ii) mobile prepaid reloading; iii) utilities and postpaid bills payment; iv) movie and flight tickets purchasing; v) payment at participating Touch 'n Go eWallet merchants with dynamic QR code; and vi) tolls payment through RFID feature and TNG Card feature

2. Methodology

In this study, 15 participants were conscripted, 5 staff from Tuanku Syed Sirajuddin Polytechnic and 10 staff from UniMAP (both institutions are in Perlis, Malaysia). The assessment was done from July 2019 to August 2019. The participants were allowed to choose the locations suitable and convenient for them to participate in the study. A usability testing was first carried out to enable participants interact with the Touch 'n Go eWallet application. After this interactive session, a post-experience questionnaire was then

given to the participants to fill. During the interactive session, participants were given 4 interactive tasks to execute on the application. These tasks are inter alia: i) check account balance; ii) perform money transfers: transfer to a favorite eWallet user; iii) reload eWallet (FPX online banking, credit or debit card, Touch 'n Go eWallet reload pin, auto-reload); and iv) perform payment at selected attached merchants. On completing the interactive tasks, the participants then provided feedback on their pragmatic experience through the psychometric instrument given to them to fill where they freely expressed their sentiment about the mobile application they interacted with.

3. Results

After the participants' interactive session with the application, they rated the app based on five pragmatic and ergonomic measures. These measures include: i) Application Screen: this measure assesses the interface design of the application and has five items as follows: a) Characters on the touch screen are easy to read; b) The menu items were well organized and functions are easy to find; c) Screen Layouts make tasks easier to complete; d) Sequences of screens are easy to understand; and e) Screen items are meaningful and easy to select. ii) Application Information: this measure assesses the information on the interface. It has five items inter alia: a) Terms usage throughout the application are consistent; b) Messages/system feedback displays on screen are easy to understand; c) Instructions to the user are clear and understandable; d) The application keeps you informed about what it is doing; and e) Error messages is very helpful. iii) Learning Experience: this measure assesses the learnability, operability, understandability, recoverability, and recallability of the application. It has five items as follows: a) It's easy to learn how to operate the application; ii) Exploration of features through trial and error is encouraged; iii) Easy to remember the terms and commands used; iv) Tasks can always be performed in a direct way; and v) Easy to understand the help messages on the screen. iv) Application Capabilities: this measure assesses the performance of the application and has for items: a) Application is performing and loads quickly; b) Suitable application graphics and sounds; c) Easy to make a mistake correction; and d) The needs of both experienced and inexperienced users are taken into consideration. v) Overall Feedback: this measure assesses the overall pleasure, impression, satisfaction and usefulness of the app. The measure has fore items as follows: a) Application interface is visually pleasing; b) Application is impressive; c) Application is user-friendly; and d) Application is very useful [9-27].

From the analysis and feedback, most of the participants (93.3%) perceived that the screen layout is easy to understand (mean rating = 4.27) and that it makes their tasks easier to complete (mean rating = 4.20). The majority of participants (86.7%) agreed that the characters in the screen are easy to read (mean rating = 4.27), and that items on the screen are meaningful and easy to select (mean rating = 4.07) as well as properly organized and easy to find (mean rating = 4.00). Overall, the mean application screen rating is 4.16 with 89.3% of rater agreement. In addition, the mean application information rating is 4.13 with 89.3% of rater agreement. Similarly, 93.3% of participants felt that term usage throughout the application are consistent (mean rating = 4.27). Furthermore, 86.7% of participants perceived that system feedback display on screen are easy to understand (mean rating = 4.13).

Meanwhile, 86.6% of participants agreed that the application keeps them informed (mean rating = 4.20), that the error messages are very helpful to them (mean rating = 4.13) and that instructions to users are clear and understandable (mean rating = 3.93). All the participants agreed that it is easy to remember the terms and commands used (mean rating = 4.40) and that the task in the system can always be performed in a direct way (mean rating = 4.33). Likewise, 93.3% of participants perceived that it is easy to understand the help messages on the screen (mean rating = 4.27). Also, 86.6% of participants agreed that it is easy to learn how to operate the application (mean rating = 4.20). In like manner, 80.0% of participants agreed that trial and error is an encouraging exploration (mean rating = 4.13). Overall, the mean learning experience is 4.27 with 92.0% of rater agreement. The mean application capabilities' rating is 4.02 with 83.3% of rater agreement. Additionally, 86.7% of participants agreed that it is easy to correct

a mistake and that the needs of both experienced and inexperienced users are taken into consideration in the design of the app (mean rating = 4.00). Meanwhile, 73.4% of participants are of the opinion that the graphics and sounds of the app is suitable (mean rating = 3.93). Also, 93.4% of participants agreed that the application is very useful to them (mean rating 4.20). Furthermore, 86.7% of participants agreed that the application interfaces are visually pleasing (mean rating = 4.20) and user-friendly (mean rating = 4.07). Meanwhile, 80.0% of participants agreed that the application is impressive. The average overall feedback is 4.14 with 86.7% of rater agreement. The results indicate that users were comfortable with the mobile application as they interacted with it. Hence, the application is pragmatically comfortable as users are able to achieve desired results with comfort and satisfaction [28-36]. Table 1 displays the outcome of the users' feedback.

Questions	Mean Rating	Percentage Agreement
Characters on the touch screen are easy to read.	4.27	86.7%
The menu items were well organized and functions are easy to find.	4.00	86.7%
Screen Layouts make tasks easier to complete.	4.20	93.3%
Sequences of screens are easy to understand.	4.27	93.3%
Screen items are meaningful and easy to select.	4.07	86.7%
Average Mean for Application Screen	4.16	89.3%
Terms usage throughout the application are consistent.	4.27	93.3%
Messages/system feedback display on screen are easy to understand.	4.13	86.7%
Instructions to the user are clear and understandable.	3.93	86.6%
The application keeps you informed about what it is doing.	4.20	86.6%
Error messages are very helpful.	4.13	86.6%
Average Mean for Application Information	4.13	89.3%
It's easy to learn how to operate the application.	4.20	86.6%
Exploration of features through trial and error is encouraged.	4.13	80.0%
Easy to remember the terms and commands used.	4.40	100%
Tasks can always be performed in a direct way.	4.33	100%
Easy to understand the help messages on the screen.	4.27	93.3%
Average Mean for Learning Experience	4.27	92.0%
Application is performing and loads quickly.	4.13	86.6%
Suitable application graphics and sounds.	3.93	73.4%
Easy to make a mistake correction.	4.00	86.7%
The needs of both experienced and inexperienced users are taken into consideration.	4.00	86.7%
Average Mean for Application Capabilities	4.02	83.3%
Application interface are visually pleasing.	4.20	86.7%
Application is impressive.	4.07	80.0%
Application is user-friendly.	4.07	86.7%
Application is very useful.	4.20	93.4%
Average Mean for Overall Feedback	4.14	86.7%

Percent Agreement (%) = Agree & Strongly Agree Responses combined

TABLE 1. Post-Interaction Pragmatic Assessment

4. Discussion

The outcome of the pragmatic rating showed that the application is impressive and comfortable in use. However, further feedback from participants revealed that there are some issues with the app that require attention. Some participants felt that some icons in the app were not suitable for the task they interacted with. For example, Participant 8 felt that the money transfers icon was not clear enough to represent the task. The importance of the some icons was unclear and they are tightly located, making it difficult to distinguish them. Furthermore, some views had missing explanatory text, leading to uncertainty among participants about what they really meant. Many participants felt that task 1: 'Check account balance' was difficult to find. Text font and color should be clear and visible. More so, help instructions were absent throughout the entire interaction. The respondents were not able to find any help features they sort for in their task interaction. It is in the introductory instruction session at the beginning of the application's setup that provided some help clue. This scenario makes it difficult for novice users. Additionally, before money transfer task was carried out, participants submitted their identity for security reasons. However, this calls for caution as it is likely to take longer time to capture images if the images did not satisfy the requirements of the app like when it is blurred, or reflective. If the process consumes users' time, the users may likely be frustrated.

This notwithstanding, there are some features that were pleasing to participants. The navigability of the application was easy and comfortable to users and many were happy with it during the interactive session. In addition, the promotions on the application's interface such as Cashback for Toll, Get RM5 off any movie Ticket, PayDirect for 20% Toll Rebates, and many more interested participants. So, the offer of discounts serves as a promotional incentive to attract more users unto using the services of the application.

5. Conclusion

In this study, 15 participants were selected to evaluate the pragmatic comfort of the Touch 'n Go eWallet mobile application. The participants were first made to interact with the application using 4 interactive tasks. The overall result of the study indicated that the mobile application is pragmatically pleasing and comfortable to use as it enables users to practically achieve success both in their interaction with it and achieving their goals on it. Nonetheless, a close look from the feedback from participants showed that there are striking problems that needed attention and taking care of them will improve the pragmatic comfort of the application.

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