

Users' Perception of their Satisfaction and Experience on a Mobile Cinema Application

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Abstract: A subjective usability evaluation was carried out on a mobile cinema application (GSC mobile cinema application) to evaluate the satisfaction and experience of its users. The evaluation was done in two areas: Politeknik Balik Pulau, Pulau Pinang and Kolej Poly-Tech Mara (KPTM) Alor Setar, Kedah. The rationale for the assessment was to evaluate the satisfaction and experience of users in terms of their reactions to the mobile application's interface, terminology and information, application capability and general impression. Twenty volunteers participated in the study. Ten of these participants were at Politeknik Balik Pulau, Pulau Pinang and the other ten were at Kolej Poly-tech Technology Mara, Alor Setar. The findings indicate that the application's interface was easy to use, simple, consistent, clear, operable, understandable, fast, error recoverable, learnable and enjoyable.

Keywords: Mobile application; mobile experience; satisfaction.

I. INTRODUCTION

Golden Screen Cinema (GSC) is a mobile cinema application that provides users with a listing of GSC movies with real-time show times and the option to select seats and buy movie tickets using smart mobile devices. GSC mobile app is accessible on all major mobile platforms like the iOS, Android and Windows. The mobile app presents a feature for the e-purchase of movie tickets and popcorn combos. E-Purchases can be made at anytime and anywhere via the following channels: Hong Leong Connect, Maybank2u, CIMB Clicks, PayPal, Visa Checkout, AMEX or credit cards. This ticketless option features a QR code on mobile phones and eliminates queue and waiting time at the Cinema gates. Movie admittance is only a scan away for users.

To carry out the usability evaluation, five services offered by the mobile app were selected. These include: download and install the GSC application, login – register account on the GSC app, check on the GSC movie listing, purchase ticket(s), and FastTicket. These services are provided in a 24 hours service to users. The evaluation was conducted in a very conducive environment to enable participants carry out the five tasks. The mobile app's usability evaluation was done using a live version of the app on android smartphones [1-10].

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II. METHODOLOGY

Roles of participants

Two facilitators were involved in the study. Each of them supervised the evaluation in the study sites. The roles of the facilitators include: i) briefing participants at evaluation sites, ii) observing participants as they carry out tasks, iii) recording the participants as they carry out tasks, iv) interviewing participants after their task activities. In addition, twenty study participants were conscripted to assess the mobile cinema application. There were 10 participants in each evaluation sites. After carrying out the five tasks, each participant completed a subjective questionnaire [11-19].

Participant's Profile

Out of the 20 participants, 14 were aged 20-25. The gender of the 14 is as follows: female (9), male (5). Of these 14, only 2 had prior experience in the use of the application. Furthermore, out of the 20 study participants, 3 were aged 26-30 and 31-35 respectively. Those in these age categories were only females, 3 each per age group. Also, only 1 in the 26-30 age category had prior experience. No participants in the 31-35 age category had prior usage experience of the mobile app [20-26].

Evaluation Metrics

The usability evaluation was done to measure the following metrics:

- i. Enjoyment
- ii. Satisfaction with the interface
- iii. Satisfaction with menu button
- iv. Satisfaction with text
- v. Easy of finding help

These metrics measures users' satisfaction and experience with the user interface. Five task scenarios and questionnaire were given to participant. The task scenarios were based on services offered in the GSC mobile application. In addition, a post-test subjective questionnaire was administered to the participants after they carried out the tasks. The questionnaire had 20 items enclosed in 7 sections, namely: participants' details, interface, terminology & application information, learning, application capabilities, general impression and overall reaction. The questionnaire was designed with a 10-point Likert scale [27-38].

After the series of tasks, the facilitator asked the participants to rate the subjective measures listed below:

- i. How easy is it to find the menu list and interface?
- ii. How easy are the instructions and terms in GSC mobile application?

- iii. Are you able to keep track of GSC services in the mobile application?
- iv. How accurate is it to predict the capabilities of the services of the mobile application?
- v. Other metrics employed in the assessment are shown in Table 1. After the administration of the subjective questionnaire, the data generated were analyzed (see Table 1). Generally speaking, all participants observed that the GSC cinema mobile application was clear, easy to use, satisfying and enjoyable [39-45].

III. RESULTS AND DISCUSSION

Table 1 displays metrics, dimensions, percentages and means of the summarized results from the analysis of the subjective questionnaire administered to participants. Participants indicated that highlighting on the screen makes task easier (86%). Also, 88% of participants were of the opinion that interface layouts make tasks easier. Furthermore, 92%

of participants revealed that menu items were easy to select. Thus, on average, 87% of study participants felt that the apps interface was easy to use. Eighty-three percent (83%) of study participants believed that the sequence of the menu of the GSC mobile apps interface was clear. Seven-nine percent (79%) believed that the instructions to users were also clear. In addition, 88% of participants felt that tasks can be performed in a straight-forward manner on the interface. Hence, the perceived simplicity of the GSC mobile app is 83% on the average. While 89% of users posit that the use of terms throughout the application was consistent (i.e., consistency), 94% perceived that the messages (feedbacks) which appear on the screen were clear (i.e., clarity). With regard to content, 81% of participants felt that the application keeps them informed about what it is doing and another 89% believe that error messages were helpful [46-50].

Table. 1 Metrics, Dimensions, Percentages and Means

Metrics	5-Point Scale	Dimensions	%	Mean
Highlighting on the screen makes task easier	Not at all – Very much	Ease-of-Use	86	87%
Interface layouts make tasks easier	Never – Always	Ease-of-Use	88	
Menu items are easy to select	Never – Always	Ease-of-Use	92	
Sequence of menu	Confusing – Clear	Simplicity	83	83%
Instructions to the user.	Confusing – Clear	Simplicity	79	
Tasks can be performed in a straight-forward manner.	Never – Always	Simplicity	88	
Use of terms throughout application	Inconsistent – Consistent	Consistency	89	89%
Messages (feedback) which appear on screen.	Inconsistent – Consistent	Clarity	94	94%
Application keeps you informed about what it is doing.	Never – Always	Content	81	85%
Error messages.	Unhelpful – Helpful	Content	89	
Learning to operate the application.	Difficult – Easy	Operability	80	80%
Helps messages on the interface.	Confusing – Clear	Understandability	81	81%
Application speed.	Too slow – Fast enough	Speed	93	93%
Correcting your mistakes.	Difficult – Easy	Recoverability	85	85%
The needs of both experienced and inexperienced users are taken into consideration.	Never – Always	Learnability	87	88%
Exploration of features by trial and error.	Discouraged – Encouraged	Learnability	89	
Interface is aesthetically pleasing.	Not at all – Very much	Enjoyability	93	93%
Application is impressive.	Not at all – Very much	Enjoyability	86	
Application is fun to use.	Not at all – Very much	Enjoyability	95	
Overall reactions to the application.	Unimpressive – Impressive	Enjoyability	96	

Furthermore, 80% of participants believe that learning to operate the application is easy (i.e., operability). Also, 81% believe that helps messages on the interface are clear (i.e., understandability). Concerning speed, 93% posits that the application speed is fast enough. Furthermore, 85% of participants concur that correcting mistakes of the interface is easy (i.e., recoverability). In addition, while 87% of participants believed that the needs of both experienced and inexperienced users were taken into consideration in the application, 87% felt that exploration of features by trial and error was encouraged by the application. Therefore, on average,

the perceived learnability for the app is 88%. Ninety-three percent (93%) of participants believed that the interface is aesthetically pleasing. Another 86% felt that the application is very much impressive. Also, 95% of users believe that the application is very much fun to use. Finally, the overall reaction to the application by 96% of participants was that it is impressive. On the average, the perceived enjoyability of the application is 93%. In sum, the GSC



mobile cinema application is perceived by majority of the study participants as usable, satisfying and enjoyable (that is the application supports their having an enriching experience).

IV. CONCLUSION

In this study, a subjective usability evaluation was done to assess the level of satisfaction and experience (enjoyment) of users of the GSC mobile cinema application. The results showed overwhelmingly that subjectively the application is easy to use, simple, consistent, clear, operable, understandable, fast, error recoverable, learnable and enjoyable etc.

However, in spite of these laudable observations and impressions, the study has some limitations. The number of participants was 20. This number is small for a subjective study of this nature since plenty of opinions are required in such studies. Also, the sampling method was purposive which do not allow for the randomization of subjects. These limitations no doubt limit the external validity of the study. Nonetheless, as this study required that participants first use the application with some prescribed tasks before filling the subjective questionnaire, the results obtained from the study can be reliable as it expresses the deep sentiment of the study participants that provides insight into their satisfaction and experience regarding the application [47-53].

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