USER EXPERIENCE STUDY FOR LOCAL GROCERY MOBILE APPLICATION

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Abstract. This study assesses the user experience (UX) of the Beceran grocery app, which has over 5000 downloads and a 4.8/5 rating. Despite its popularity, users report issues like limited payment options, restricted delivery times, poor item freshness, bugs, and long buffering. Interviews with 30 local residents using the HEART Framework metrics revealed that Beceran excels in task completion speed and ease of use but struggles with incomplete features, unattractive design, limited product range, and lack of location selection. Key recommendations include integrating Google Maps for address search, adding e-wallet payments, creating a discounts section, providing user tutorials, offering detailed product descriptions, and expanding product variety. Addressing these issues is vital for maintaining user loyalty and preventing decline, highlighting the need for ongoing improvement.

Keywords: user xxperience, HEART framework, beceran, mobile application

A. Introduction

The basic needs of food, clothing, and shelter are essential for human life, typically fulfilled through shopping activities [1]. Nowadays, shopping can be done online due to technological advancements in the current industrial era [2]. This advancement is evident with the increase in internet users in Indonesia, reaching 215.63 million in 2022-2023, according to the Indonesian Internet Service Providers Association (APJII). The proximity of the internet to daily life, including online shopping known as M-commerce, is a result of these technological advancements [3].

M-commerce refers to business activities conducted via mobile devices and the internet, encompassing various shopping applications that assist in meeting daily needs [4]. For example, Beceran is an application used for purchasing kitchen supplies, vegetables, and other fresh food items. Beceran has over 5,000 downloads, mainly by local residents around Purbalingga, and has a rating of 4.8/5. Despite Beceran's high rating, the platform faces technical issues reported by users. These issues need to be addressed promptly as they can impact the company's revenue [5]. Reviews on Google Playstore reveal complaints about Beceran, like limited payment methods, restricted delivery times, unsatisfactory item freshness, bugs, and long buffering times. Users have also directly complained about login/signup errors and higher product prices compared to physical markets.

To maintain user loyalty, Beceran needs to be managed and regularly evaluated [6]. Failure to address these issues may lead to a decline in users and financial problems, similar to the case of the Tumbasin app, which shut down in 2023 due to user experience issues [7]. User experience (UX) must be assessed since user discomfort can result from UX designs that do not take user perspectives into account [8]. The benefit of this research is to identify appropriate improvement recommendations to enhance the user experience using User Experience Benchmarking for the Beceran application [9]. The research was conducted using qualitative

methods, with the results obtained through interviews with local residents of Purbalingga who served as respondents.

B. Methods

The method used in this research is a qualitative descriptive method. According to [10], qualitative research is characterized by reporting results through detailed descriptions, direct quotes from interviews, and interpretative commentary. Data collection begins by identifying respondents who use the Beceran application and meet the respondent criteria. The respondents are then given instructions to perform predetermined tasks. Data collection is carried out using the user experience method, which involves selected metrics from the HEART Framework, including satisfaction rating, ease of use, average time on task, error count, success rate, and time on task [11]. The sample selection technique used in this research is purposive sampling because it analyzes data from respondents in a population that meets specific criteria defined by the researcher [12]. Using this technique, the researchers obtained 30 respondents for the data analysis [13]. Data analysis using UX Benchmarking is conducted by calculating the average value for each metric used and then comparing the results between the Beceran application [11].

C. Results And Discussion

1. Result

The data analysis using the UX Benchmarking method is conducted on the known average values of the total duration of application usage for each task scenario, the number of errors in each application, user satisfaction scores, and user-friendliness scores of Beceran application. The average values are shown in Table 1 below.

Table 1. Calculation of user experience beceran

Criteria	Beceran
Average Time T1 (second)	19
Average Time T2 (second)	90
Average Time T3 (second)	42
Average Time T4 (second)	15
Average Time Total (second)	166
Success Rate	100%
Error Count	23
Average User Satisfaction	3
Average Ease of Use	4

Moreover, interviews with respondents about their experiences using Beceran application were conducted. Respondents highlighted advantages such as fast task time, ease of understanding, and a simple interface. Respondents also pointed out several drawbacks of the Beceran application. These include incomplete features, an unappealing design, a limited range of products, lack of location selection features, limited payment methods, restricted service areas, and limited delivery times.

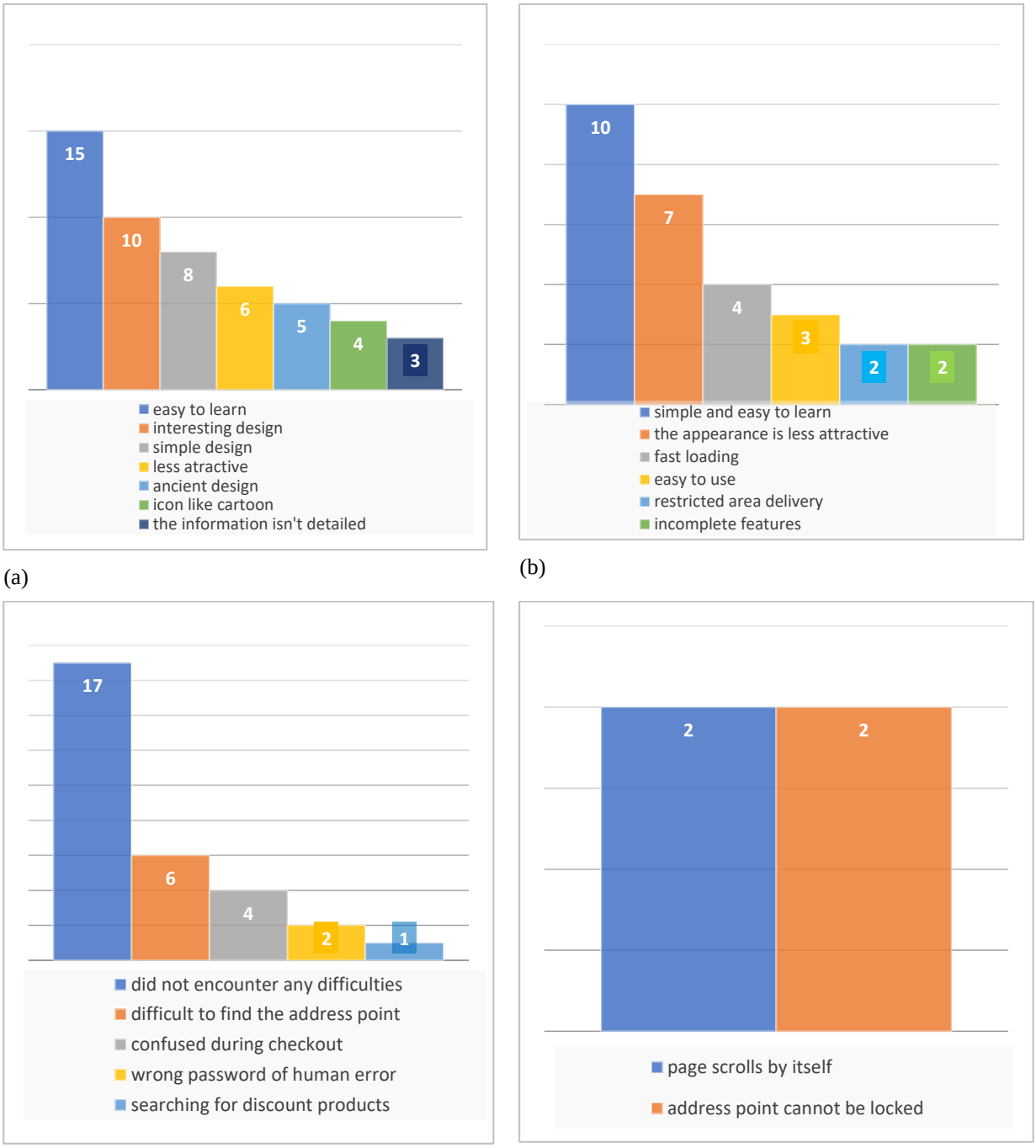
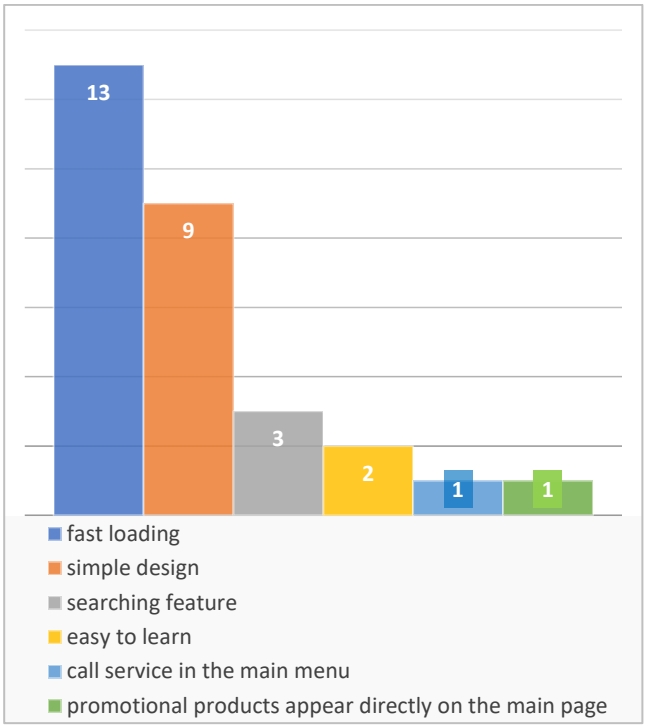


Figure 1. Result of respondents' interview on (a) Visual of Beceran; (b) First Impression of Beceran; (c) Types of Difficulties on Beceran; (d) Bug on Beceran



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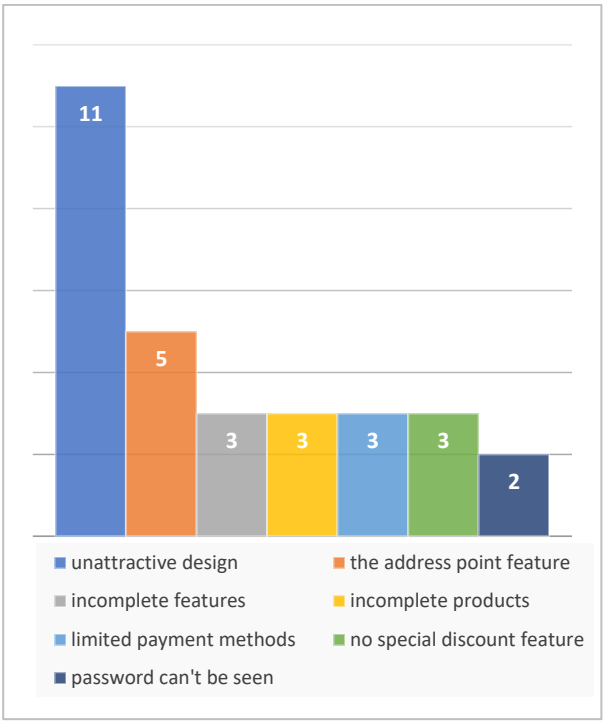

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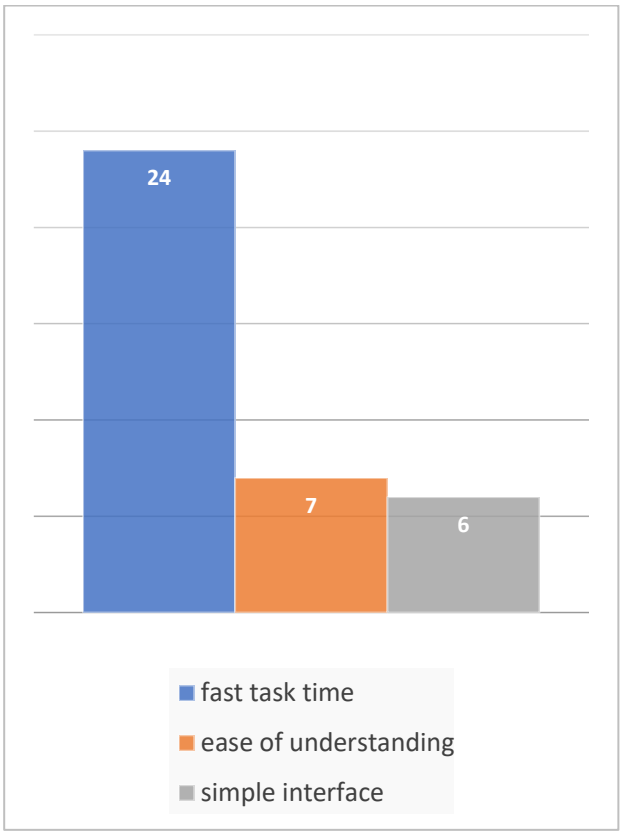

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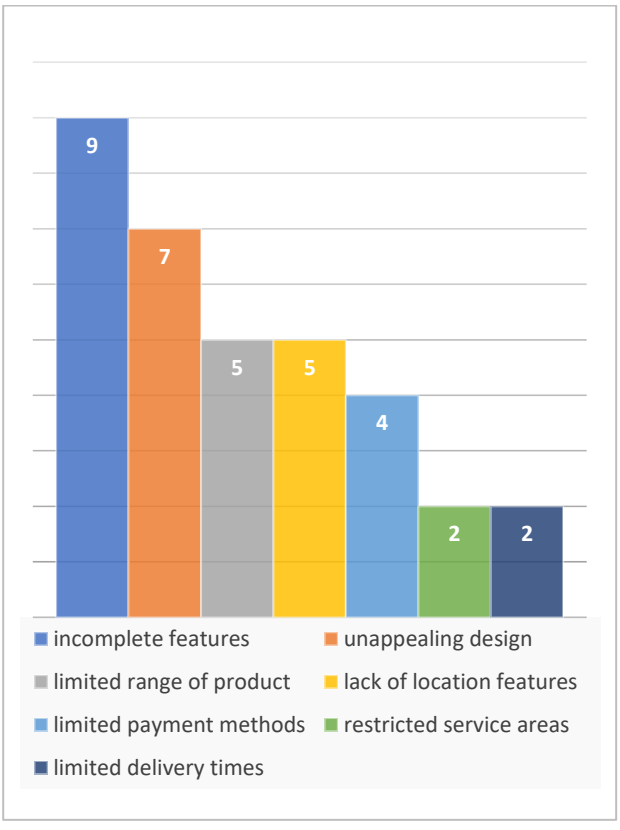

(h)

Figure 2. Result of respondents' interview on (e) Favorite Parts of Beceran; (f) Disliked Parts of Beceran; (g) Advantages of Beceran; (h) Weaknesses of Beceran

2. Discussion

The aspect of user experience is crucial for developers to consider in order to maintain user loyalty [8]. Based on the interviews conducted with respondents, there are several recommendations for the Beceran application. The first feature is a search function for selecting delivery addresses, integrated with Google Maps to facilitate user navigation. This feature is recommended by 6 respondents. The second feature is a payment method option using e-wallets, recommended by 8 respondents. The third feature, recommended by 7 respondents, is a special section for discounted products. The fourth feature is a tutorial for new users on how to use the application, recommended by 2 respondents. In addition to feature recommendations, some respondents also suggested other improvements. Three respondents recommended adding more detailed product descriptions, and 6 respondents suggested including more products in the display. Details of the distribution of these responses can be seen in Figure 3 below.

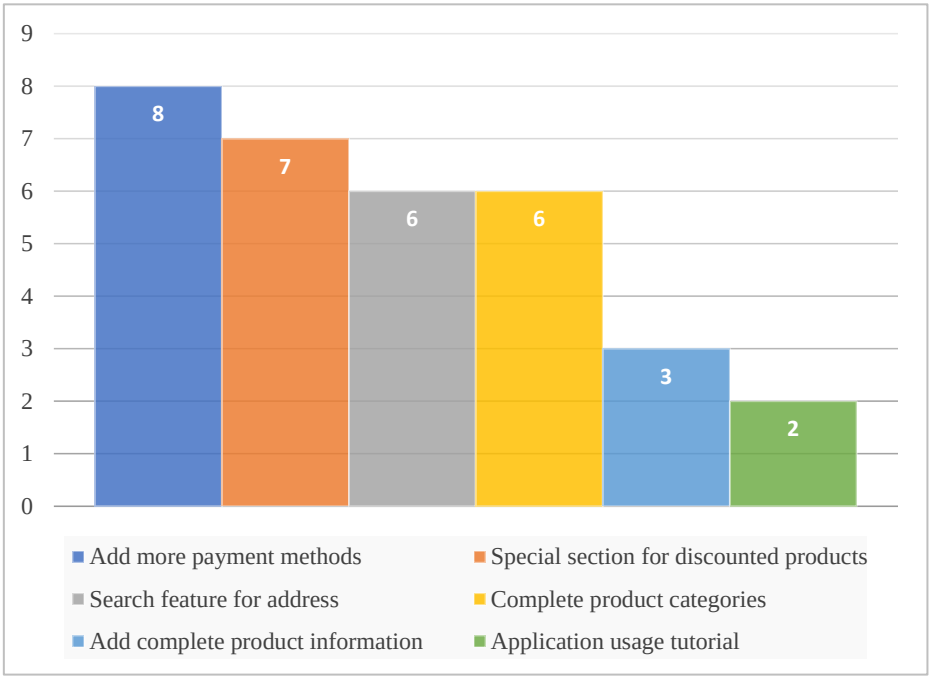

Figure 3. Recommendations for Beceran from respondents

D. Conclusion

The user experience study for the Beceran app reveals strengths like fast load times and ease of use but highlights several issues that need addressing. Users reported problems such as limited payment methods, restricted delivery times, unsatisfactory item freshness, bugs, and an unappealing design. Recommendations include integrating Google Maps for address search, adding e-wallet payment options, creating a section for discounted products, providing tutorials for new users, offering detailed product descriptions, and expanding product variety. Addressing these issues is crucial for maintaining user loyalty and preventing user decline, emphasizing the need for continuous evaluation and improvement. This study has limitations in that respondents are only from Central Java, so these results do not represent the entire Java Island region.

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