

1. INTRODUCTION

Technological developments in 2022 are increasingly developing in Indonesia. The perceived development is the use of mobile applications on smartphones. Mobile applications are very influential in everyday life because it makes it very easy for users to complete activities and problems that exist in society. Mobile applications can also be used to assist business needs. Before the existence of smartphones, people in ancient times still received information/news from newspapers because of their limited knowledge of creating technology.

According to a Nielsen survey, published research results that in Indonesia, online media readers are more than print media because in the last four years newspaper buyers have begun to decrease. Indonesian people prefer to read online media because according to a survey conducted print media penetration is 8 percent. Then followed by television (96%), internet (43%), and radio (37%) [1]. From the results of the Nielsen survey, it can be seen that newspapers are starting to be used less frequently and are being abandoned. Digital media such as news media have created applications that are easily downloaded and accessed from the Play Store for free. The news presented in the application can display information in a structured and accurate as well as the speed in delivering (updates) in real-time.

Currently, one of the cities in Indonesia, namely Batam City, has a news application, namely Batamnews. Batamnews was founded by PT Media Siber Batamnews and has been operating since 2015. Batamnews is one of the media to deliver the latest news about Batam from the newest to the most popular. Batamnews also always provides something new to find information about sports, property, economy, technology, culinary, lifestyle, automotive, and so on. Until now Batamnews continues to grow and is one of the most widely accessed online media by users, especially in the Riau Islands province. Batamnews has an application that can be downloaded for free through the play store and has downloaded and has a readership of more than 1000 users. However, until now no one has ever evaluated the Batamnews application, so it is not known whether the Batamnews application has been effective, efficient, or has usability that gives satisfaction to its users.

So, at the initial stage, an evaluation was carried out by distributing questionnaires as well as interviews with 20 respondents who were users of the Batamnews application or who had used similar applications. Based on data processing using the System Usability Scale (SUS) questionnaire, a score of 57 was obtained, while the average score for SUS was 68. So, it can be concluded that the Batamnews application has low usability. The results of distributing questionnaires and interviews found that there were several shortcomings in usability when users used the Batamnews application, including the absence of a navigation menu on the main page, Users' complaints about features that should be available but not in the app, users feel the display of Batamnews is unresponsive, and the user's disinterest in the use of symbols (icons) presented by Batamnews application. Besides that, users also have difficulty when they want to use the features provided by Batamnews. Based on the results of the initial survey shows that there is a lack of interface display in the current application which results in users no longer using the Batamnews application because it is not designed according to user needs. Therefore, improvements and design recommendations are needed for the Batamnews application.

To overcome the problems experienced by the Batamnews application, a User-Centered Design (UCD) method is needed the design to create and provide recommendations for new UCD improvements to suit the needs of users. This method was chosen because UCD can improve usability which provides comfort, convenience, and efficiency in using the application [2]. Application design using the UCD method can increase the usability value of the application and can also help design applications according to user needs [3]. While the evaluation method used is the System Usability Scale (SUS) because SUS has several advantages, namely the evaluation process carried out more easily understood by respondents, the sample used is small but describes the maximum results and can distinguish which applications can be used or which cannot be used [4]. This SUS method can also evaluate the user interface with satisfactory results in the application [5].

Some of the studies that have been done before including research conducted by Muhammad Multazam, Irving V Papatungan, and Beni Suranto in 2020 who created a UI/UX website on placeplus using the User-Centered Design method. The author examines how to create a good UI/UX for online coworking space reservation and management and the results of the design get a good impression and response from users [6]. The second research was conducted in 2018 by Edi Susilo, Danang Wijaya, and Rudy Hartanto. In his research, the author examines how to design and evaluate Smart Grid applications that function to sell and buy electrical power to make it easier for people to use it because there are still few studies that discuss Smart Grid applications [7]. The third study was conducted by Ali Imran, Muhammad Nasir, and Lipantri Mashur Gultom. The author examines how to redesign the website of the Bengkalis State Polytechnic Department of Informatics Engineering because the UI/UX of a bad website makes users leave the website. The results of the new website design were also tested by conducting a User Experience Questionnaire and getting good results so that it can increase the level of user satisfaction [8]. Subsequent research conducted by Muhammad Azmi, Agi Putra Kharisma, and Muhammad Aminul Akbar in 2019 examined how to evaluate the User Experience of the Grab food application by testing a prototype in accordance with the design that was made so that it could be used in future input for the Grabfood application [9]. The last research conducted by Abid Bagus Kurniawan, Ismiarta Aknuranda, and Andi Reza Perdana Kusuma in 2019 researched how to evaluate and recommend User Experience designs on the BMKG Info mobile application. The evaluation was carried out because the BMKG Info application got a bad User Experience

for users because 17 problems were found [10].

So, the purpose of this research is to provide and produce recommendations for a new Batamnews application prototype using the UCD method so that it can be input and can optimize the Batamnews application as a news media that can be used properly in the future.