

## 1. Preliminary

### Background

Evolution Web Application is a web application for ITGC Evidence collection in Telkom Indonesia. This web application is used regularly every quarter of the year. Its main purpose is as a repository of evidence control that can be used at any time for audit purposes both internally and externally. The Evolution Web Application will be used as the object of research because this Web Application requires improvements for the User Interface Design in accordance with requests and requirements from the Evolution web application users.

To validate the Evolution Web Application User Interface Design problem and the improvements that will be applied according to user needs, Author conducted User Interview. User interview is a common technique for conducting user research that aims to obtain qualitative information from existing and potential users [1]. User interview is conducted using Focus Group Discussion (FGD) with Evolution web Application users. Focus Group Discussion is a collection of participants who have been chosen and brought together by researchers to discuss and offer their opinions on the research topic based on their own experiences [2].

At User Interview stage, the author conducted Focus Group Discussion (FGD) to discuss the problem, pain and gain point of the user in using Evolution Web Application. The results of a user interview and focus group discussion with Evolution web users showed that the User Interface and User Experience design on the Evolution web did not satisfy and not suitable for users. User Interface design of the Evolution Web Application is ineffective because the layout and menu makes the users difficult to use, which causes an unsatisfactory experience for the users when using Evolution Web Application.

To overcome these problems, there is a need to improve the user interface design of the application so that the application can be in accordance with the needs of the user. So, in this study the author will do the improvement to enhance the user interface design in accordance with the needs of the user. The method used in this study is User Centered-Design (UCD). User-centered Design method is based on Usability knowledge to find the user needs. The methodology is designed to collect and address the entire user experience. designed to improve the acceptance and efficiency of interactive systems, decrease errors and support and training hours, and deliver the best possible user experience [3].

After creating the improvements of the User Interface design, the author will conduct Usability Evaluation. Usability evaluation is an assessment of how usable something is. It may involve a range of techniques to look at how effective, efficient, engaging, and efficient a system is. Depending on the sort of system or interface being reviewed, these elements may or may not be equally important [4]. Usability Evaluation will be carried out using Focus Group Discussion (FGD) and Heuristic Evaluation. Heuristic evaluation involves examining an interface and attempting to identify its positive and negative aspects [5]. Heuristic Evaluation is conducted with 3 experts and will review the Evolution Web Application user interface design after improvement by grade using Severity Rating to produce the accepted usability principles.

### Topics and Limits

Based on the problems that have been described, the following is the formulation of the problem:

- 1) How are the improvements of the user interface can make users comfortable and suitable in using the Evolution Web Application by using *User-centered Design* method?
- 2) How are the usability evaluation for the user interface design improvement result of Evolution Web Application?

### Purposes

Based on the formulation problem that have been described, the following is the purposes of the research.

- 1) Improve the user interface design that is comfortable and suitable for users of the Evolution Web Application using *User-centered Design* method.
- 2) Evaluate the usability for the user interface design improvement result of Evolution Web Application.

## 2. Related Study

### 2.1 Basic Theory

#### 2.1.1 Evolution Web Application

Evolution Web Application is web application for ITGC division in Telkom Indonesia to collect the Evidence report. This application is used regularly every quarter. The main purpose is as a repository of evidence control that can be used at any time for audit purposes both internally and externally.