1. Introduction
1.1. Background

The online passport application is a program designed by the Directorate General of Immigration to facilitate people getting passports by queuing [1]. This online passport service application comprises a queue of passport applications, including passport issuance and renewal. In this application, people can select the immigration office and date. Until the end of 2021, there were over 1000 reviews in the comment section of this application's Appstore page [2]. Five evaluations on this review express displeasure with the UI of the online passport service application.

This research conducted the initial interview to determine the faults' position on the interface and the effect users create when using this program. After conducting interviews with three users, this research found issues with flaws in the UI and functionalities. Applicants who want to extend their passport documents got difficulties since the color usage was excessively contrasted and the lack of content structure of information. This study also completed the initial interview with the quantitative measurement using the UEQ (User Experience Questionnaire) method. From the initial test results, the average results of the Attractiveness scale were -0.24, Efficiency -0.18, Perspicuity 0.27, Stimulation 0.11, Dependability -0.30, and Novelty -0.59. Those scores proved that the current application obtained a below-average value that cannot be acceptable and required improvement to increase its user experience.

Based on the problem description, this research aimed to produce a more qualified UI/UX design for an online passport service application based on the User-Centered Design (UCD) method. The User-Centered Design (UCD) technique identifies what users require before constructing the design. The UCD approach is built on understanding Ergonomics and Usability to determine user requirements [3]. The UCD technique generates suggestions for the best interface for this application, while this research performed a User Experience Questionnaire (UEQ) to assess user satisfaction after offering design recommendations [4]. This research provided practical benefits by enhancing people's engagement and satisfaction with online passport applications.

1.2. Topic and Scope of Problem

Based on the background description above, it can be formulated that the existing problem is how to analyze and design the interface for the Online Passport Service Application according to the user needs using the User Centered Design (UCD) method. Some limitations exist in analyzing and designing the online passport service application's user interface/user experience. In this study, the research only designed user interface design for online passport service application using the UCD (User Centered Design) method and usability analysis of the interface design using the UEQ (User Experience Questionnaire) method. The subjects of this research are iOS-based users. Usability testing is carried out until the results of the design recommendations get an average value or above.

1.3. Research Purpose

This research aims to produce a recommendation in the form of an online passport service application interface design based on the User Centered Design (UCD) method. As well as an analysis of the results of usability values from the initial interface design with designs designed with the user centered design method. And also, the results of this study are expected to be used as a reference for further development by the authorities.

1.4. Writing Organization

In this paper, the first describes the background of the problem, the topic to be raised and the limitations of the problem to be studied, the purpose of research writing, and the organization of this research. Then in part two, researchers prepare themselves by conducting a literature study. What will be studied as search data and support problem solving and research objectives. The sources are books, research reports, thesis, journals, and theses already available, national and international papers, and online library search results. Part three describes the research method, a mechanism for solving research problems, and the model or stages used during this research. Section 4 is the result of the evaluation carried out during the study. And the last is part 5, which contains the conclusions from the results of the research that has been done.