ABSTRACT

User interface and user experience design are among the key factors in the development of a digital product. In the process of designing a product's User Interface (UI) and User Experience (UX), several aspects must be considered, including ensuring the design meets user needs, is easy to understand, clearly represents features and their purposes, and aligns with the capabilities of the development team. Currently, various approaches and methods are available to support UI/UX design development, with one of the most commonly used being the User-Centered Design (UCD) method, due to its strong focus on the user. However, the conventional UCD method has several limitations, creating opportunities for further exploration, improvement, and refinement. To address these limitations, this study proposes an enhanced method by combining conventional UCD with a scenario-based approach known as Scenario-Based Requirements Analysis (SCRAM). The result of this integration is a modified UCD method, which was subsequently tested and compared to the conventional UCD. Both methods were applied in the redesign of a digital banking application. The resulting UI/UX designs were then evaluated based on variables aligned with the international standard ISO 9241-11, namely effectiveness, efficiency, and user satisfaction (measured using the System Usability Scale or SUS), as well as the time required to implement each method. The evaluation results show that the modified UCD method demonstrated improved performance, with a 28% increase in effectiveness (based on missclick rate) and a 27% increase in user satisfaction (based on SUS score). However, there was a 7% decrease in efficiency (based on the average time to complete tasks) and a 17% increase in implementation time. Therefore, the modified UCD method has the potential to serve as a more effective alternative in UI/UX design development, producing higher-quality designs that are better aligned with user needs and consistent with business or application goals.

Keywords: *UI/UX, UCD, improve, SUS, SCRAM*