

ABSTRAK

Bookstore Universitas Sanata Dharma telah menyediakan layanan berbasis website sebagai media informasi dan transaksi pembelian buku. Namun, berdasarkan hasil observasi dan identifikasi kebutuhan pengguna, sistem yang tersedia masih memiliki beberapa kendala, seperti tampilan yang kurang optimal pada perangkat mobile, informasi stok buku yang belum diperbarui secara real-time, proses pembelian yang kurang intuitif, serta permasalahan pada fitur autentikasi. Kondisi tersebut menunjukkan perlunya pengembangan antarmuka pengguna berbasis mobile yang lebih sesuai dengan kebutuhan pengguna. Penelitian ini bertujuan untuk merancang dan mengimplementasikan mobile user interface pada Bookstore Universitas Sanata Dharma menggunakan pendekatan Design Thinking.

Penelitian ini menggunakan metode Design Thinking yang terdiri atas lima tahapan, yaitu *Empathize*, *Define*, *Ideate*, *Prototype*, dan *Test*, kemudian dilanjutkan dengan tahap implementasi aplikasi menggunakan framework Flutter dengan Firebase sebagai backend. Data penelitian diperoleh melalui observasi, wawancara, dan kuesioner yang melibatkan mahasiswa dan staf Universitas Sanata Dharma. Evaluasi prototype dilakukan menggunakan metode *System Usability Scale* (SUS), sedangkan aplikasi yang telah diimplementasikan dievaluasi berdasarkan enam aspek usability, yaitu *Learnability*, *Efficiency*, *Memorability*, *Error Tolerant*, *Satisfaction*, dan *Effectiveness*.

Hasil penelitian menunjukkan bahwa penerapan Design Thinking berhasil mengidentifikasi empat permasalahan utama pengguna yang kemudian diterjemahkan menjadi kebutuhan fungsional dalam perancangan aplikasi. Seluruh fitur utama yang dirancang berhasil diimplementasikan sesuai kebutuhan pengguna. Hasil pengujian prototype menggunakan *System Usability Scale* memperoleh skor rata-rata sebesar 86, yang termasuk dalam kategori Excellent. Sementara itu, evaluasi usability terhadap aplikasi yang telah diimplementasikan memperoleh nilai rata-rata sebesar 88,83% dengan kategori Sangat Baik, dimana aspek *Memorability* memperoleh nilai tertinggi sebesar 92%, sedangkan aspek *Error Tolerant* memperoleh nilai 83%. Hasil tersebut menunjukkan bahwa pendekatan *Design Thinking* efektif dalam menghasilkan antarmuka mobile yang

mudah digunakan, efisien, dan sesuai dengan kebutuhan pengguna, sehingga dapat menjadi acuan dalam pengembangan layanan digital Bookstore Universitas Sanata Dharma yang lebih modern dan berpusat pada pengguna.

Kata kunci: *Design Thinking, User Interface, Mobile Application, Bookstore, System Usability Scale, Usability.*



ABSTRACT

The Sanata Dharma University Bookstore has provided a website-based service as a medium for information and book purchase transactions. However, based on observation results and user needs identification, the existing system still has several shortcomings, such as a display that is not optimal on mobile devices, book stock information that has not been updated in real time, a purchasing process that is not intuitive, and problems with the authentication feature. This condition indicates the need to develop a mobile-based user interface that better suits user needs. This research aims to design and implement a mobile user interface for the Sanata Dharma University Bookstore using the Design Thinking approach.

This research uses the Design Thinking method, which consists of five stages, namely Empathize, Define, Ideate, Prototype, and Test, followed by an application implementation stage using the Flutter framework with Firebase as the backend. Research data were obtained through observation, interviews, and questionnaires involving students and staff of Sanata Dharma University. The prototype was evaluated using the System Usability Scale (SUS) method, while the implemented application was evaluated based on six usability aspects, namely Learnability, Efficiency, Memorability, Error Tolerant, Satisfaction, and Effectiveness.

The results show that the application of Design Thinking successfully identified four main user problems, which were then translated into functional requirements for the application design. All the main features designed were successfully implemented according to user needs. The prototype testing results using the System Usability Scale obtained an average score of 86, which falls into the Excellent category. Meanwhile, the usability evaluation of the implemented application obtained an average value of 88.83% with a Very Good category, where the Memorability aspect obtained the highest value of 92%, while the Error Tolerant aspect obtained a value of 83%. These results indicate that the Design Thinking approach is effective in producing a mobile interface that is easy to use, efficient, and suited to user needs, so that it can serve as a reference in the

development of more modern and user-centered digital services for the Sanata Dharma University Bookstore.

Keywords: *Design Thinking, User Interface, Mobile Application, Bookstore, System Usability Scale, Usability*

