ABSTRAK

Perkembangan teknologi digital mendorong Usaha Mikro, Kecil, dan Menengah (UMKM) untuk memanfaatkan *website* sebagai media penyampaian informasi sekaligus sarana pelayanan kepada pelanggan. Namun, Queen Aluminium sebagai UMKM yang bergerak di bidang pemasaran dan pemasangan produk aluminium serta kaca belum memiliki *website* yang mampu mendukung kebutuhan pengguna secara optimal. Berdasarkan hasil observasi dan wawancara, pengguna mengalami kesulitan dalam memperoleh informasi produk, memahami spesifikasi teknis, memperkirakan biaya, serta memantau perkembangan pesanan secara mandiri. Permasalahan tersebut menunjukkan perlunya perancangan antarmuka yang berorientasi pada kebutuhan pengguna. Oleh karena itu, penelitian ini bertujuan merancang dan mengevaluasi *User Interface* (UI) dan *User Experience* (UX) *website* penjualan pada Queen Aluminium menggunakan metode *User Centered Design* (UCD).

Penelitian ini menerapkan metode *User Centered Design* (UCD) yang terdiri atas tahapan *Understand and Specify Context of Use*, *Specify User requirements*, *Produce Design Solutions*, dan *Evaluate Design Against User requirements*. Data penelitian diperoleh melalui observasi, wawancara, dan studi literatur, kemudian digunakan sebagai dasar perancangan *prototype UI/UX* menggunakan Figma. *Prototype* yang dihasilkan selanjutnya dievaluasi melalui *task-based usability testing* menggunakan platform Maze yang melibatkan lima pengguna eksternal dan dua pengguna internal (*admin*). Evaluasi *usability* dilakukan menggunakan metrik *Success Rate*, *Time Based Efficiency* (TBE), *Defective Rate*, dan *System Usability Scale* (SUS) untuk mengukur aspek *learnability*, *efficiency*, *errors*, dan *satisfaction*.

Hasil penelitian menunjukkan bahwa *prototype* yang dirancang memiliki tingkat *usability* yang sangat baik. Pada pengujian pengguna eksternal diperoleh *Success Rate* sebesar 100%, *Defective Rate* sebesar 5,93%, dan skor *System Usability Scale* (SUS) sebesar 89,5 yang termasuk dalam kategori *Acceptable*, *Excellent*, dan *Grade A*. Sementara itu, pada pengujian pengguna internal diperoleh *Success Rate* sebesar 100%, *Defective Rate* sebesar 0%, dan skor SUS sebesar 86,25 yang termasuk dalam kategori *Acceptable*, *Excellent*, dan *Grade B*. Hasil evaluasi tersebut menunjukkan bahwa *prototype* mampu mendukung pengguna dalam menyelesaikan tugas secara efektif dan efisien, meminimalkan tingkat kesalahan, serta memberikan pengalaman penggunaan yang baik. Dengan demikian, penelitian ini menghasilkan *prototype UI/UX website* penjualan yang telah tervalidasi melalui pengujian *usability* dan dapat dijadikan sebagai rekomendasi rancangan antarmuka dalam pengembangan layanan digital di Queen Aluminium.

Kata Kunci: *User Interface* (UI), *User Experience* (UX), *User Centered Design* (UCD), *Usability testing*, Queen Aluminium.

ABSTRACT

The rapid advancement of digital technology has encouraged Micro, Small, and Medium Enterprises (MSMEs) to utilize websites as a medium for delivering information and providing customer services. However, Queen Aluminium, an MSME engaged in the marketing and installation of aluminum and glass products, does not yet have a website capable of adequately supporting users' needs. Based on observations and interviews, users experienced difficulties in obtaining product information, understanding technical specifications, estimating costs, and independently tracking the progress of their orders. These issues indicate the need for a user-centered interface design. Therefore, this study aims to design and evaluate the User Interface (UI) and User Experience (UX) of the Queen Aluminium sales website using the User Centered Design (UCD) method.

This study adopted the User Centered Design (UCD) method, which consists of four stages: Understand and Specify Context of Use, Specify User requirements, Produce Design Solutions, and Evaluate Design Against User requirements. Data were collected through observations, interviews, and a literature review, and subsequently used as the basis for designing a UI/UX prototype using Figma. The resulting prototype was then evaluated through task-based usability testing using the Maze platform, involving five external users and two internal users (administrators). Usability was evaluated using the Success Rate, Time Based Efficiency (TBE), Defective Rate, and System Usability Scale (SUS) metrics to measure the aspects of learnability, efficiency, errors, and satisfaction.

The results indicate that the proposed prototype achieved an excellent level of usability. The evaluation involving external users resulted in a Success Rate of 100%, a Defective Rate of 5.93%, and a System Usability Scale (SUS) score of 89.5, which falls within the Acceptable range, receives an Excellent Adjective Rating, and corresponds to Grade A. Meanwhile, the evaluation involving internal users resulted in a Success Rate of 100%, a Defective Rate of 0%, and an SUS score of 86.25, which falls within the Acceptable range, receives an Excellent Adjective Rating, and corresponds to Grade B. These findings demonstrate that the proposed prototype enables users to complete tasks effectively and efficiently, minimizes user errors, and provides a positive User Experience. Therefore, this study produced a validated UI/UX prototype for a sales website that can serve as a recommended interface design for supporting the digital service development of Queen Aluminium.

Keywords: *User Interface (UI), User Experience (UX), User Centered Design (UCD), Usability testing, Queen Aluminium.*