Perancangan Purwarupa dan Evaluasi Usability Aplikasi Logistik untuk Bencana Alam Berdasarkan User-Centered Design = Prototype Design and Usability Evaluation of Logistic Application for Natural Disasters Based on User-Centered Design

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Abstrak

Indonesia merupakan negara kepulauan terbesar di dunia yang seringkali terjadi bencana alam. Penanggulangan bencana menjadi fokus utama dalam mengatasi bencana alam, terutama saat situasi tanggap darurat. Penyaluran logistik atau biasa disebut humanitarian logistic menjadi suatu hal penting guna memenuhi kebutuhan korban serta mencegah timbulnya korban jiwa. Namun, permasalahan seringkali terjadi saat penyaluran logistik, seperti penumpukan logistik di suatu posko, kurang meratanya persebaran logistik, dan permasalahan lainnya. Berbagai permasalahan tersebut muncul akibat kurangnya koordinasi antar stakeholder bencana alam serta kurangnya informasi terkait logistik yang akurat dan relevan. Oleh karenanya, dengan menggunakan disiplin ilmu Human Computer Interaction (HCI), penelitian ini bertujuan untuk membuat perancangan desain purwarupa aplikasi bencana alam. Penelitian ini juga menggunakan metode User-Centered Design (UCD) yang bertujuan agar perancangan desain lebih berfokus ke pengguna. Target pengguna dari aplikasi ini adalah seorang relawan bencana alam yang pernah membantu dalam penyaluran logistik di suatu posko bencana alam. Hasil dari penelitian ini berupa perancangan desain purwarupa high-fidelity mockup. Selain itu, hasil penelitian ini juga berupa evaluasi desain purwarupa dengan menggunakan pendekatan mixed methods yang mana menggunakan usability testing untuk data kualitatif, dan System Usability Scale (SUS) untuk data kuantitatif. Berdasarkan hasil evaluasi data kualitatif, 10 narasumber berpendapat bahwa desain purwarupa sudah memiliki informasi yang cukup lengkap dan mudah dipahami. Selain itu, berdasarkan data kuantitatif, desain purwarupa memiliki nilai di atas rata-rata yaitu 76 dan 80,5, sehingga sudah memiliki usability yang baik

.....Indonesia is the largest archipelagic country in the world that is often affected by natural disasters. Disaster management is the main focus in overcoming natural disasters, especially during emergency response situations. Logistics distribution or commonly called humanitarian logistics becomes an important thing to meet the needs of victims and prevent casualties. However, problems often occur when distribution of logistics, such as logistics stacking at a post, lack of equitable distribution of logistics, and other problems. These problems arise due to lack of coordination among stakeholders of natural disasters as well as a lack of accurate and relevant logistical information. Therefore, by using the discipline of Human Computer Interaction (HCI), this study aims to create a prototype design of natural disaster applications. This study also uses the User-Centered Design (UCD) method which aims to make the design of the design more focused on the user. The target user of this application is a natural disaster volunteer who has helped in the distribution of logistics at a natural disaster post. The results of this study are in the form of high-fidelity mockup prototype design. In addition, the results of this study are also in the form of an evaluation of prototype design using a mixed methods approach which uses usability testing for qualitative data, and System Usability Scale (SUS) for quantitative data. Based on the results of the evaluation of qualitative data, 10 speakers argued that the prototype design already had sufficiently complete and easily understood

information. In addition, based on quantitative data, prototype design has a value above the average of 76 and 80.5, so it already has good usability.