

PERANCANGAN SISTEM E-CRM BERBASIS WEBSITE UNTUK MENINGKATKAN PENGALAMAN DAN LOYALITAS PELANGGAN PT DCS

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ABSTRAK

PT DCS merupakan entitas bisnis B2B penyedia produk promosi, suvenir, dan merchandise untuk instansi pemerintah, perusahaan multinasional, serta korporasi. Kendati eksis sejak 2007 dengan pasar yang luas, operasional manajemen pelanggan di perusahaan ini masih menghadapi beberapa hambatan operasional yang cukup mengganggu. Data pelanggan masih terdokumentasi secara terpisah melalui aplikasi pesan WhatsApp, email, dan Microsoft Excel tanpa adanya sistem integrasi yang terpadu. Proses administrasi pesanan yang bersifat manual juga memperbesar potensi kelalaian kerja serta memperlambat respons layanan. Lebih lanjut, belum tersedia portal mandiri bagi mitra untuk memantau proses pengerjaan pesanan, serta tiadanya skema program loyalitas pelanggan yang terstruktur. Jika permasalahan tersebut terus dibiarkan, tingkat kepuasan dan loyalitas klien korporat berisiko mengalami penurunan. Guna mengatasi persoalan ini, penelitian ini merancang dan membangun sistem *Electronic Customer Relationship Management* (E-CRM) berbasis web untuk menyatukan seluruh interaksi pelanggan ke dalam satu ekosistem digital. Pengembangan sistem menggunakan metode *Waterfall* yang berjalan sekuensial dari analisis, desain, pengkodean, pengujian, hingga pemeliharaan. Evaluasi prosedur berjalan dianalisis menggunakan metode PIECES. Sementara arsitektur sistem dimodelkan dengan *Unified Modeling Language* (UML) serta dibangun menggunakan framework Laravel dan basis data MySQL. Sistem E-CRM yang dihasilkan terbukti mampu menuntaskan kendala operasional yang dihadapi perusahaan selama ini. Database pelanggan kini terpusat, fitur pelacakan produksi dapat diakses secara real-time, penanganan keluhan terkelola via mekanisme tiket, dan program loyalitas otomatis berjalan optimal. Uji fungsional menggunakan Black-box Testing pada 47 skenario pengujian menunjukkan aplikasi berjalan sempurna sesuai spesifikasi. Implementasi E-CRM ini diharapkan dapat mendongkrak efisiensi kerja PT DCS, mempererat relasi B2B, serta menghadirkan layanan berbasis data yang unggul.

Kata Kunci: E-CRM, Website, Model Waterfall, Kerangka PIECES, Pengalaman Konsumen.

DESIGN OF WEB-BASED E-CRM SYSTEM TO IMPROVE CUSTOMER EXPERIENCE AND LOYALTY AT PT DCS

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ABSTRACT

PT DCS is a B2B business specializing in providing promotional products, souvenirs, and merchandise for government, multinational, and corporate clients. Despite operating since 2007 with a broad market reach, the company's customer management operations still face several disruptive operational obstacles. Customer data remains documented separately via WhatsApp messaging, email, and Microsoft Excel spreadsheets without any integrated system. The manual order administration process increases human error risks and slows down response times. Furthermore, there is currently no self-service portal for partners to track order progress, nor is there a structured customer loyalty program. If these issues persist, the satisfaction and loyalty of PT DCS's corporate clients risk declining. To address these challenges, this study designs and builds a web-based Electronic Customer Relationship Management (E-CRM) system to centralize customer interactions. System development adopts the Waterfall model, running sequentially from requirements analysis, design, coding, system testing, to maintenance. Existing procedures were evaluated using the PIECES framework. The system architecture is modeled using Unified Modeling Language (UML) and built using the Laravel framework and MySQL database. The resulting E-CRM system successfully resolved the operational bottlenecks previously faced by the company. The customer database is now centralized, production tracking is accessible in real-time, complaint handling is managed via a ticketing system, and the automated loyalty program runs optimally. Functional testing using Black-box Testing on 47 scenarios confirmed that the developed application operates perfectly according to specifications. Implementing this E-CRM is expected to boost efficiency at PT DCS, strengthen B2B relationships, and deliver superior data-driven services.

Keywords: *E-CRM, Website, Waterfall Model, PIECES Framework, Customer Experience.*