

**ANALISIS PENGUKURAN KUALITAS LAYANAN *E-COMMERCE*
SHOPEE INDONESIA**

TUGAS AKHIR



DEPARTEMEN TEKNIK INDUSTRI

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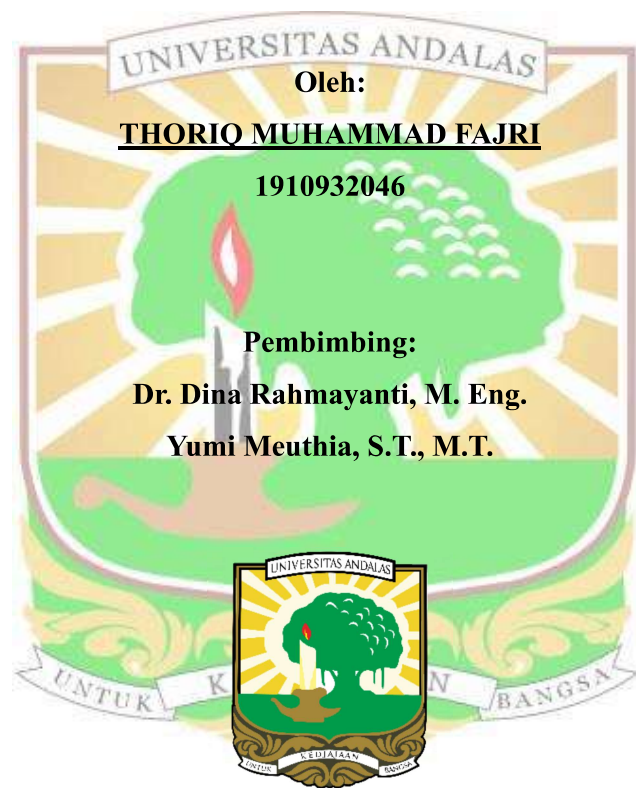
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*Sebagai Salah Satu Syarat untuk Menyelesaikan Program Sarjana pada
Departemen Teknik Industri Fakultas Teknik Universitas Andalas*



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ABSTRAK

Shopee Indonesia merupakan salah satu platform e-commerce yang banyak digunakan oleh masyarakat. Tingginya jumlah pengguna membuat kualitas layanan aplikasi menjadi faktor penting dalam menjaga kepuasan pelanggan. Namun, ulasan pelanggan pada Google Play Store menunjukkan masih terdapat berbagai keluhan, seperti aplikasi sulit dibuka, aplikasi berjalan tidak normal, iklan yang mengganggu, keterbatasan metode pembayaran, serta ketidaksesuaian produk. Keluhan tersebut menunjukkan bahwa layanan Shopee masih memiliki beberapa aspek yang belum memenuhi harapan pelanggan. Oleh karena itu, diperlukan pengukuran kualitas layanan berdasarkan Voice of Customer (VoC) agar area layanan yang bermasalah dapat diidentifikasi secara lebih jelas.

Penelitian ini bertujuan untuk mengidentifikasi atribut Critical to Quality (CTQ), mengukur tingkat kualitas layanan, serta menentukan prioritas perbaikan layanan Shopee Indonesia. Data yang digunakan berupa 5.000 ulasan pelanggan Shopee Indonesia pada Google Play Store periode Januari 2026. Metode yang digunakan adalah integrasi text mining dan Six Sigma dengan pendekatan DMAIC yang dibatasi pada tahap Define, Measure, dan Analyze. Tahap Define dilakukan melalui klasifikasi sentimen berbasis rating, preprocessing text, analisis bigram, dan identifikasi CTQ. Tahap Measure dilakukan dengan menghitung defect, DPMO, dan level sigma. Tahap Analyze dilakukan menggunakan analisis Pareto dan diagram fishbone untuk menentukan prioritas masalah serta dugaan akar penyebab berdasarkan pola keluhan pelanggan.

Hasil penelitian menunjukkan bahwa terdapat 1.058 ulasan negatif dari 5.000 ulasan yang dianalisis. Berdasarkan hasil analisis VoC, diperoleh empat atribut CTQ, yaitu Stabilitas Aplikasi, Kenyamanan Navigasi, Integritas dan Kesesuaian Produk, serta Fleksibilitas Metode Pembayaran. Hasil pengukuran menunjukkan bahwa kapabilitas proses layanan berada pada level 3,34 sigma dengan nilai DPMO sebesar 32.800. Analisis Pareto menunjukkan bahwa CTQ-1 Stabilitas Aplikasi dan CTQ-2 Kenyamanan Navigasi menjadi prioritas utama perbaikan karena memberikan kontribusi defect terbesar. Berdasarkan diagram fishbone, dugaan penyebab masalah pada CTQ-1 berkaitan dengan akses dan stabilitas aplikasi, sedangkan CTQ-2 berkaitan dengan tampilan promosi yang mengganggu kenyamanan navigasi. Rekomendasi perbaikan diarahkan pada peningkatan stabilitas aplikasi, pengujian fungsi utama, pemantauan keluhan pelanggan, serta penataan tampilan promosi agar tidak mengganggu aktivitas utama pengguna.

Kata kunci: Voice of Customer, CTQ, DPMO, Ulasan Online, E-commerce.

ABSTRACT

Shopee Indonesia is one of the most widely used e-commerce platforms in Indonesia. The large number of users makes service quality an important factor in maintaining customer satisfaction. However, customer reviews on the Google Play Store indicate that several service problems are still experienced by users, such as difficulty opening the application, abnormal application performance, disturbing advertisements, limited payment methods, and product mismatches. These complaints show that some service aspects have not fully met customer expectations. Therefore, service quality measurement based on the Voice of Customer (VoC) was required to identify the main service areas that need improvement.

This study was conducted to identify Critical to Quality (CTQ) attributes, measure the level of service quality, and determine priority areas for service improvement in Shopee Indonesia. The data used in this study consisted of 5,000 customer reviews of the Shopee Indonesia application on the Google Play Store in January 2026. The method applied in this study was an integration of text mining and Six Sigma using the DMAIC approach, which was limited to the Define, Measure, and Analyze stages. In the Define stage, rating-based sentiment classification, text preprocessing, bigram analysis, and CTQ identification were carried out. In the Measure stage, defect, DPMO, and sigma level were calculated. In the Analyze stage, Pareto analysis and fishbone diagrams were used to determine priority problems and identify possible root causes based on customer complaint patterns.

The results showed that 1,058 negative reviews were identified from 5,000 reviews. Based on the VoC analysis, four CTQ attributes were obtained, namely Application Stability, Navigation Convenience, Product Integrity and Suitability, and Payment Method Flexibility. The service process capability was measured at 3.34 sigma with a DPMO value of 32,800. The Pareto analysis showed that CTQ-1 Application Stability and CTQ-2 Navigation Convenience became the main priorities for improvement because they contributed the largest number of defects. Based on the fishbone analysis, the possible causes of CTQ-1 were related to application access and stability, while CTQ-2 was related to promotional displays that interfered with navigation convenience. Improvement recommendations were directed toward increasing application stability, testing main application functions, monitoring customer complaints, and arranging promotional displays so that user activities would not be disturbed.

Keywords: Voice of Customer, CTQ, DPMO, Review, E-commerce.