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Peningkatan Efisiensi Operasional Konsumsi BBM Own Use Dengan Metode Full To Full
Farizi Pramaditya, Rika Fatimah P.L., S.T., M.Sc., Ph.D.,
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ABSTRAK

Penggunaan bahan bakar minyak (BBM) own use pada kegiatan distribusi BBM merupakan salah satu komponen biaya operasional yang perlu dikendalikan secara efektif, khususnya pada operasional fuel terminal. Penelitian ini bertujuan untuk menganalisis tingkat efisiensi operasional konsumsi BBM own use sebelum penerapan metode pengisian full to full, mengevaluasi efektivitas metode full to full dalam meningkatkan akurasi pencatatan konsumsi BBM, serta mengukur efisiensi biaya operasional setelah penerapan metode tersebut. Penelitian ini menggunakan pendekatan manajemen operasi dengan landasan teori operations efficiency dan prinsip lean management, yang menekankan pengurangan pemborosan dan variasi proses.

Penelitian dilakukan di Fuel Terminal Samarinda dengan melibatkan 32 unit mobil tangki yang beroperasi, di mana 5 unit dipilih secara sengaja sebagai sampel pengukuran mendalam. Metode penelitian yang digunakan adalah studi kasus dengan pendekatan deskriptif kuantitatif, melalui pengukuran konsumsi BBM own use menggunakan metode full to full. Data dikumpulkan berdasarkan total jarak tempuh, jumlah pengangkutan, serta volume BBM yang dikonsumsi sebelum dan sesudah penerapan metode full to full.

Hasil penelitian menunjukkan bahwa penerapan metode full to full mampu menghasilkan perbaikan efisiensi operasional. Total konsumsi BBM own use setelah penerapan metode full to full mengalami penurunan dibandingkan dengan kondisi sebelum penerapan, yang tercermin dari peningkatan rasio efisiensi mobil tangki dari 2,692 km/l menjadi 2,915 km/l. Penurunan konsumsi BBM tersebut berdampak langsung pada efisiensi biaya operasional, dengan potensi penghematan yang signifikan selama periode penelitian. Selain itu, penerapan metode full to full yang didukung oleh pelatihan awak mobil tangki berkontribusi dalam mengurangi variasi proses dan meningkatkan keandalan sistem pengendalian BBM own use.

Penelitian ini menyimpulkan bahwa metode full to full merupakan pendekatan yang efektif dalam meningkatkan efisiensi operasional dan pengendalian biaya BBM own use. Temuan penelitian ini diharapkan dapat menjadi referensi bagi pengelola fuel terminal dalam menerapkan sistem pengukuran konsumsi BBM yang lebih akurat, efisien, dan berkelanjutan.

Kata kunci: BBM own use, operations efficiency, lean management, metode full to full, fuel terminal.

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ABSTRACT

Fuel consumption for own use in fuel distribution activities represents a significant component of operational costs that requires effective control, particularly in fuel terminal operations. This study aims to analyze the level of operational efficiency of own-use fuel consumption prior to the implementation of the full-to-full refueling method, evaluate the effectiveness of the full-to-full method in improving the accuracy of fuel consumption recording, and measure operational cost efficiency after the implementation of the method. This research adopts an operations management perspective, grounded in operations efficiency theory and lean management principles, which emphasize waste reduction and process standardization.

The study was conducted at the Samarinda Fuel Terminal and involved 32 operating fuel tanker trucks, with five units purposively selected for detailed measurement. A case study approach with descriptive quantitative analysis was employed, using the full-to-full method to measure own-use fuel consumption. Data were collected based on total travel distance, number of trips, and fuel volume consumed before and after the implementation of the full-to-full method.

The results indicate that the implementation of the full-to-full method significantly improves the accuracy of fuel consumption recording and enhances operational efficiency. Post-implementation data show a reduction in own-use fuel consumption compared to pre-implementation conditions, as reflected by an improvement in the fuel efficiency ratio from 2.692 km/l to 2.915 km/l. This reduction in fuel consumption leads directly to improved operational cost efficiency and demonstrates the potential for substantial cost savings during the observation period. Furthermore, the application of the full-to-full method, supported by driver training and process control, contributes to reduced process variation and improved system reliability in managing own-use fuel consumption.

This study concludes that the full-to-full method is an effective approach to improving operational efficiency and cost control in own-use fuel consumption management. The findings are expected to provide practical insights for fuel terminal management in implementing more accurate, efficient, and sustainable fuel consumption measurement systems.

Keywords: own-use fuel consumption, operations efficiency, lean management, full-to-full method, fuel terminal.