

**ANALISIS FAKTOR YANG MEMPENGARUHI
EFISIENSI WAKTU SANDAR KAPAL
STUDI KASUS KAPAL RORO BENGKALIS – SUNGAI SELARI**

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ABSTRAK

Transportasi feri Roll-on/Roll-off (Ro-Ro) berperan penting dalam mendukung mobilitas masyarakat dan distribusi logistik di wilayah pesisir Kabupaten Bengkalis. Salah satu permasalahan pada rute Bengkalis–Sungai Pakning adalah belum optimalnya efisiensi waktu sandar kapal, yang berdampak pada antrean kendaraan, keterlambatan keberangkatan, dan kualitas pelayanan. Penelitian ini bertujuan menganalisis efisiensi waktu putar balik kapal Ro-Ro serta mengidentifikasi faktor-faktor yang memengaruhi keterlambatan proses bongkar muat kendaraan. Penelitian menggunakan metode kuantitatif deskriptif melalui observasi lapangan, pengukuran waktu operasional kapal, serta analisis terhadap waktu kedatangan, bongkar, muat, dan keberangkatan. Hasil penelitian menunjukkan bahwa rata-rata waktu sandar kapal berkisar 38–52 menit, yang cenderung melebihi standar operasional pelabuhan feri regional sebesar 30–45 menit. Inefisiensi terutama dipengaruhi oleh antrean kendaraan yang tidak teratur, keterbatasan kapasitas dermaga, kondisi cuaca, serta koordinasi operasional yang belum optimal. Penerapan sistem antrean digital, pengaturan pola kendaraan, dan optimalisasi prosedur bongkar muat berpotensi mengurangi waktu sandar sebesar 15–20%. Hasil penelitian ini dapat menjadi dasar rekomendasi peningkatan efisiensi operasional dan kualitas pelayanan angkutan feri pada rute Bengkalis – Sungai.Pakning.

Kata Kunci : Manajemen, Kapal Ro-Ro, Waktu Berlabuh, Efisiensi Operasional, Terminal Feri

**OPERATIONAL MANAGEMENT OF RO-RO FERRY
SERVICES TO IMPROVE CROSSING SERVICE
EFFICIENCY ON THE BENGKALIS-SUNGAI PAKNING ROUTE**

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ABSTRACT

Roll-on/Roll-off (Ro-Ro) ferry transportation plays an important role in supporting community mobility and logistics distribution in the coastal area of Bengkalis Regency. One of the main problems on the Bengkalis–Sungai Pakning route is the suboptimal efficiency of vessel berthing time, which results in vehicle queues, departure delays, and reduced service quality. This study aims to analyze the efficiency of Ro-Ro vessel turnaround time and identify the factors affecting delays in vehicle loading and unloading processes. The study employs a descriptive quantitative method through field observations, measurement of vessel operational time, and analysis of arrival, unloading, loading, and departure times. The results show that the average vessel berthing time ranges from 38 to 52 minutes, tending to exceed the regional ferry port operational standard of 30–45 minutes. Inefficiency is primarily influenced by disorganized vehicle queues, limited berth capacity, weather conditions, and suboptimal operational coordination. The implementation of a digital queuing system, improved vehicle arrangement, and optimization of loading and unloading procedures has the potential to reduce berthing time by 15–20%. The findings of this study can serve as a basis for recommendations to improve the operational efficiency and service quality of ferry transportation on the Bengkalis–Sungai Pakning route.

Keywords: Management, Ro-Ro Ship, Berthing Time, Operational Efficiency, Ferry Terminal