Universitas Indonesia Library >> UI - Skripsi Membership

Penerapan Konsep Green Port dan Dampaknya terhadap Efisiensi dan Indikator Lingkungan Pelabuhan (Studi Kasus Pelabuhan Tanjung Perak) = Application of Green Port Concept and its Impact to Port Cost Efficiency and Green Performance Indicator (Case Study: Port of Tanjung Perak)

Alfredo Surya Pradana, author

Deskripsi Lengkap: https://lib.ui.ac.id/detail?id=20504595&lokasi=lokal

---

Abstrak

Adanya kesadaran dan urgensi untuk meminimalisir dampak lingkungan, membuat adanya konsep green port bagi pelabuhan. Ini dikarenakan pelabuhan merupakan salah satu sumber polutan akibat aktivitas kepelabuhanannya yang rentan akan risiko (gas buang peralatan berat, kebocoran, kesalahan bongkar muat, dll). Salah satu konsep dari green port yang difokuskan kali ini adalah elektrifikasi. Penulis melakukan pengamatan mengenai sejauh mana konsep ini diterapkan dan dampaknya terhadap kualitas udara, air, kebisingan, dan tingkat biaya dari operasional pelabuhan dalam rentang waktu 2016-2019. Variabel yang digunakan sebagai variabel bebas adalah tingkat penerapan konsep green port, Pengujian pengaruh antara penerapan green port terhadap BBM, udara, air , dan kebisingan dilakukan dengan membandingkan kondisi sebelum dan sesudah penerapan konsep dengan metode independent t-test. Hasilnya didapat bahwa penerapan green port (dan elektrifikasi) memiliki pengaruh terhadap kualitas air, udara, tingkat biaya, dan tidak berpengaruh terhadap kebisingan. Dari segi perbandingan kualitatif, ditemukan juga kesimpulan bahwa penggunaan peralatan bertenaga listrik lebih efisien dibanding menggunakan peralatan berbahan bakar minyak. <hr /> An increase in public’s awareness against the environmental issues and problem caused an urgency for a company to acknowledge the consequences of their daily operations to the environment. It is already well known that the port is perceived as a source of pollutants from the heavy machinery usage, to waste and water treatment. The Green Port concept is made to accommodate the environment issues, thus help the company to understand the negative impacts from their operations to the environment, and try to change the operations cleaner than before. The electrification concept is one of the Green Port concept that try to minimize the negative externalities to environment (pollution) by changing the primary source of energy from fossil fuels, to electric-powered equipment. This research focuses on measuring how far this concept’s applied inside port operations and how it affects the operational cost and port environmental performance. This research use the green port implementation as an independent variables and air quality, water quality, noise level, and cost level from 2016 to 2019 for the dependent variable. This research found that there are an impacts from the green port implementation and electrification (the power usage) to the air quality, water quality, and cost level. This research also found that there are no impact between the application of green port and noise level. This research also compared the operation cost from the usage of electricity based equipment and petrodiesel based equipment. The result is the electric-powered equipment has a better efficiency and lower cost than the petrodiesel equipment.