Intelligent Shipping Technology and Green Port for Sustainable Maritime Transport in Nigeria

Ibrahim Rasheed O.& Ohonsi, Victor I.*
Department of Maritime Transport and Business Studies, Federal Polytechnic, Ilaro, Ogun State, Nigeria
*Corresponding author email: victor.ohonsi@federalpolyilaro.edu.ng

Introduction
Global emission from the maritime sector is responsible for the 10-50% of pyogenic sulphur, nitrogen oxide and 13% carbon-dioxide. As the need for energy conservation and emission grows, green port is becoming increasingly important to maintain the growth of maritime and reduce its effect on agricultural cargoes. Intelligent Shipping Technology is a modern shipping service system that focuses on technology and algorithm for greenhouse gas emission from ship under port promotes that improves shipping efficiency and reduces cost of maintenance. The research work was carried out with a view to review the in-depth of how advanced technology and sustainable practice are integrated into shipping procedure and green port. The specific idea is to find out how the integration of intelligent ships, intelligent marine insurance, intelligent supervision and intelligent services, through artificial intelligent and smart green port with environmental sustainability can reduce the ecological footprint of maritime activities to enhance operational efficiency in Nigeria.

Methodology
The study adopted a mixed method of quantitative and qualitative design and questionnaire was used to collect data from a sample size of 180employees of two major shipping companies; Bovas Group and Caverton Marine Lagos. In this regard, quantitative and qualitative data are measured and analysed in the survey. The quantitative parameter was all about energy consumption, emission, artificial intelligence and its effect on sustainable maritime transport. The data was analyzed using descriptive and inferential statistics from SPSS. Multiple linear regression was then used to determine the relationship between the dependent and sub-variables.

Results and discussion
The findings revealed that the intelligent shipping has helped to increase ecological friendly ecosystem with a p-value of 0.001, 0.000, 0.002 & 0.000 respective on the sub-variables. It also found that improper conservation of energy and incombustible fossil fuel by vessel which emits greenhouse gas has negative effect on the efficiency of maritime activities.

Conclusions
The study concluded that the aapplication of smart shipping can greatly reduce its negativity through artificial intelligent. The integration of green port can also help to reduce ship emissions to the barest minimal and improve sustainability of maritime activities. It shows that in port where [AI] technology is effectively integrated, energy efficiency is improved and greenhouse gas emission significantly decreases.

Keywords: Intelligent shipping Technology, Intelligent ships, Intelligent Marine Insurance, Intelligent Supervision, Intelligent Services, Green Port,