Abstract

This project explores the concept of port sustainability and addresses key gaps and challenges in achieving sustainable practices within the maritime industry. In the study, a total of 25 articles identified through a systematic review approach was done under two major themes, that is on use technology to achieve port sustainability and use of green initiatives. Based on the articles analysed, this study identified three critical areas of concern: the absence of standardized key performance indicators for port sustainability, the challenges faced by ports in adopting sustainable initiatives, and the influence of individual factors on port performance, such as geographical location. By analysing these gaps, the project emphasizes the need for collaborative efforts among port authorities, shipping companies, government bodies, industry associations, and research institutions to promote sustainable practices and address environmental and social impacts.

Keywords: sustainable ports, digital ports, smart ports, green ports, Middle East, Gulf ports, Saudi Arabia, UAE