



عنوان البحث باللغة الإنجليزية:

Exploring Perceived Risks and Investment Opportunities towards Hydrogen Airplane Adoption in the Tourism Industry.

الملخص باللغة الإنجليزية:

The electrolysis technology of water molecules (i.e., generating electrical energy from water) has emerged as a renewable fuel at the same time as the world searches for new ways to address global warming and tries to save environmentally damaged sectors such as tourism and travel. Nowadays, these two sectors are striving to realize the sustainable travel concept. In the context of intensified attempts to combat climate change, there is a growing interest in air travel being carbon-neutral to surrounding environments. As such, hydrogen has been proven to be an alternative fuel in the travel industry, as it is generated from oxygen molecule separation in water post-usage. This fuel is capable of cooling the marine environment but is clean and free of organic pollutants and is called "green hydrogen." Accordingly, this paper explores perceived risks and investment opportunities towards green hydrogen-powered airlines adoption in the tourism industry. Based on a quantitative approach, adoption portability antecedents of these airplanes in the Egyptian travel and aviation industry were investigated from a tourism and environmental expert perspective. WarpPLS 8 findings showed that investment opportunities for adopting these airplanes positively affected their adoption portability, while perceived risks of adopting these airplanes negatively affected their adoption portability in the tourism industry. Moreover, investment opportunities to adopt these airplanes reduced the negative nexus between perceived risks and these airplanes adoption portability. Based on these findings, a long-term plan for alternative energy growth can be found in tourism roadmaps for clean hydrogen adoption developed globally. In this regard, the tourism industry will be able to adjust its future vision in light of the information provided to support decision-makers within Environment and Tourism Ministries.