

Passenger intentions toward the use of self-service technologies in the air transport industry

Abstract

The global airline industry is part of the largest sectors in the world today, and an ever-growing passenger influx generates many new challenges in the airport environment. The industry's responsibility in striking a balance between ensuring seamless security measures and a streamlined operational structure at airports is fundamental to the increasing number of travellers opting for digital processing functions. Airports worldwide have been actively embracing state-of-the-art technologies to strengthen aviation security and enhance passenger flow following the impact of the recent global pandemic. Biometric security, in particular, has gained increasing relevance as it ensures both accuracy and convenience in authentication services. This research paper aims to provide empirical evidence that yields a comprehensive understanding of the user-perceived risks over biometric self-service technologies at the airport, namely data privacy concerns, and their influence on travellers' intentions to use such automated authentication processes.

Through an extensive literature review and data analysis, valuable insights are gained regarding the digitalisation of processing functions and the challenges faced by the industry during the implementation of biometric technology. Findings revealed the statistical significance of factors including perceived control and perceived risk, highlighting the effect that said aspects have on the acceptance of self-service technologies. The research approach posed in the study aims to guide airport management in designing the appropriate strategies for a successful integration of digital technologies.