

Analyzing importance weights on the quality attributes of air navigation services

Edison Betancourt
atcedisonb@hotmail.com
General Directorate of Civil Aviation, Ecuador

Moon Gil Yoon*
mgyoon@kau.ac.kr
Korea Aerospace University, Korea

Received May 25 , 2023

Abstract

The aviation industry has constantly evolved to meet the changing needs of society, with an increasing number of flights leading to congested airspace and a need for new technologies and procedures. Safety and quality is paramount in this industry, with the International Civil Aviation Organization pursuing the Global Air Navigation Plan to improve air navigation worldwide. To provide safe and efficient air navigation services, it is necessary to define and measure the quality of air navigation services. This study focuses on analyzing the attributes of Air Navigation Service (ANS) quality from the perspectives of pilots and air traffic controllers. Due to the lack of existing research on ANS quality models, we apply the SERVQUAL model to identify important attributes that impact ANS quality. We found that Reliability and Assurance are the most important attributes for both groups, while empathy and tangibles show greater variation in perception. This study provides insights into the different perceptions of ANS quality between pilots and ATC controllers and highlights areas for future research in developing a comprehensive ANS quality model.

Keywords: Air navigation service, service quality, SERVQUAL model, importance weight, Cook-Kress DEA model

* Corresponding author