

## Passengers' Willingness to Use Soft Biometric at Airports

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**Abstract :** Up to date, the automated border control system has been used at many airports, which features biometric technology to identify passengers. In spite of its efficiency, failures or extra time could occur sometimes. To improve recognition performance, some scholars proposed the idea of using soft biometrics to support facial recognition systems at checkpoints in airports. The result showed that the efficiency and accuracy are improved. This study aims to explore passengers' acceptance of soft biometric technology (SBT). We developed a survey to discover factors that affect passengers' acceptance. An online survey was conducted, and an ANOVA (Analysis of variances) was performed. Our results found that passengers of different genders, ages, education levels, and average monthly incomes do not have significant differences in usage attitude. However, in terms of preferred top style on board and average flying frequency per year, passengers with preferences for wearing T-shirts and less flying frequency tend to have better attitudes toward the SBT. On the other hand, factors such as performance expectancy, social influence, facilitating condition, and hedonic motivation have positive influences on either usage attitude or behavioral intention. Behavioral intention is driven by usage attitude as well.

**Keywords :** smart airport, biometrics, soft biometric technology, willingness to use

**Conference Title :** ICAAAE 2025 : International Conference on Aeronautical and Aerospace Engineering

**Conference Location :** Seattle, United States

**Conference Dates :** September 06-07, 2025