Below are screenshots of the steps I took to complete an analysis in the JMP SAS software for the AirSat dataset. This data set is the results of a survey sent out by a commercial airline.

Distributions of all variables except RecID and OSAT

A screenshot of a computer

AI-generated content may be incorrect.

Correlations amongst the variables before imputation

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Distributions post imputation

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Final Factor Loadings

(removed inflight wifi service, inflight entertainment, and online boarding because they were cross loaded, only loaded 3 factors because the 4th factor only had 1 association)

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For factor 1: "Airline Service Experience" (ASE) makes sense because it includes all the key services passengers interact with, like in-flight service, baggage handling, check-in, and legroom and onboard service which are important parts of the overall airline experience.

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For factor 2: "Passenger Amenities" (PA) makes sense because it captures all the in-flight elements that enhance the passenger experience, including seat comfort, food and drink, and cleanliness. These are key amenities that contribute to a more enjoyable and pleasant journey.

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For factor 3: "Travel Logistics Convenience" (TLC) makes sense because it covers the key aspects of a smooth travel experience, such as convenient departure and arrival times, ease of online booking, and gate locations. These associations all contribute to the overall convenience of planning and navigating the journey.

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A table with numbers and letters

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Distribution for all composite scores

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