Correlation between travel experiences and post-COVID outbound tourism intention: a case study from China

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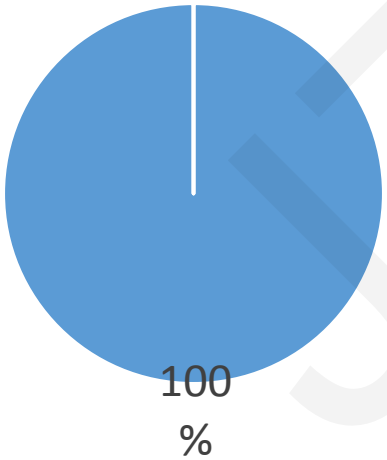
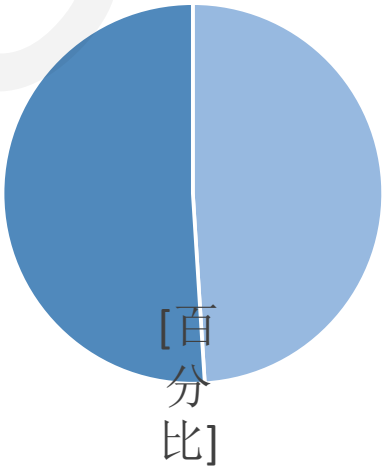
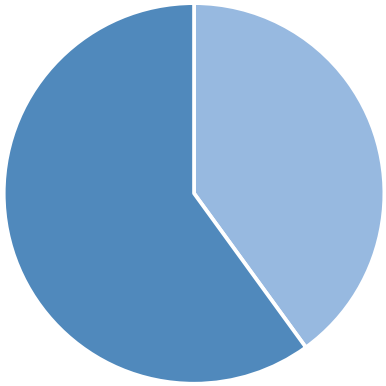
Keywords: Outbound tourism; Touring behavior; Travel behavior; COVID-19; Ensemble learner

Cite this as: Yilin SUN, Yinan DONG, Dianhai WANG, E. Owen D. WAYGOOD, Hamed NASERI, Kazuo NISHII, 2023. Correlation between travel experiences and post-COVID outbound tourism intention: a case study from China. *Journal of Zhejiang University-SCIENCE A (Applied Physics & Engineering)*, 24(11):1003-1016. https://doi.org/10.1631/jzus.A2300057

COVID-19 and Global Tourism Industry

For Chinese Travelers:

	2019	2021	2022
Outbound	155+ Million Trips US$ 133.8+ Billion Spent	Only Around 20 Million Departures Over 90% Decline in Consumption	
Domestic			

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Data Collection

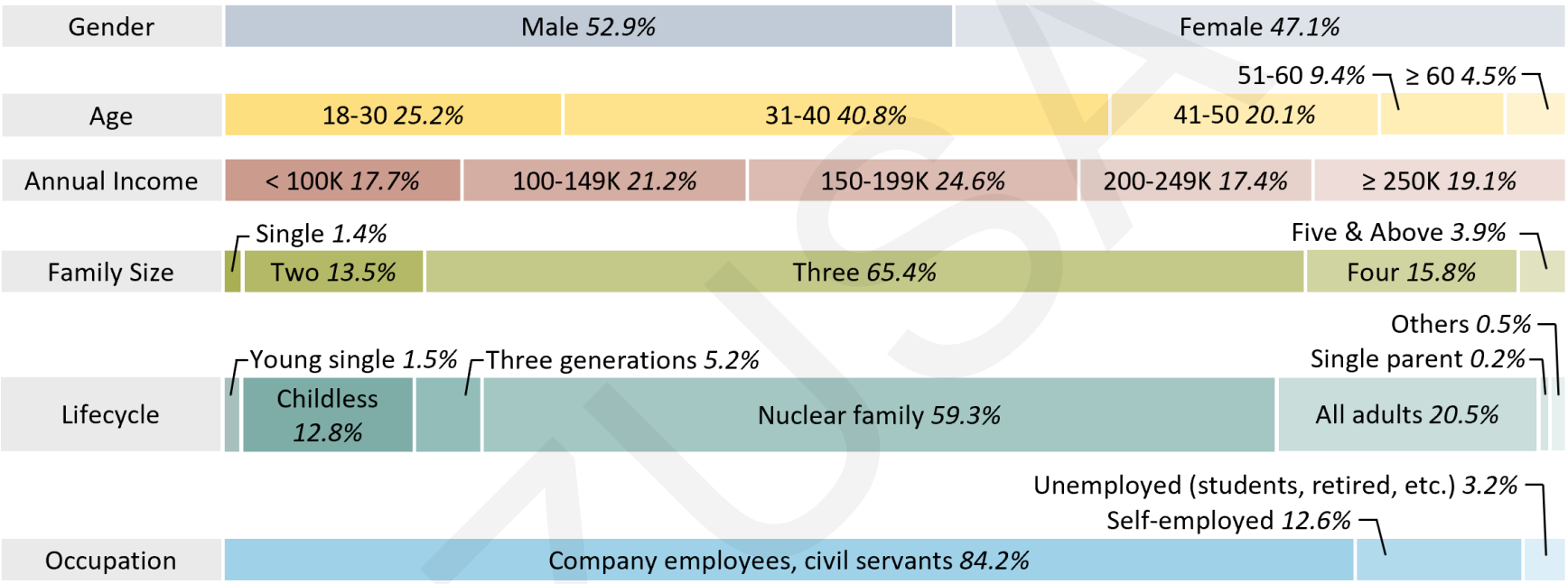

Fig. 1 Socio-demographic characteristics of the respondents

From April 15th to 21st, 2022, the survey received 2,450 valid responses with 350 from four provinces (Fujian, Guangdong, Jiangsu, Shandong, Zhejiang) and two mega-cities (Beijing, Shanghai).

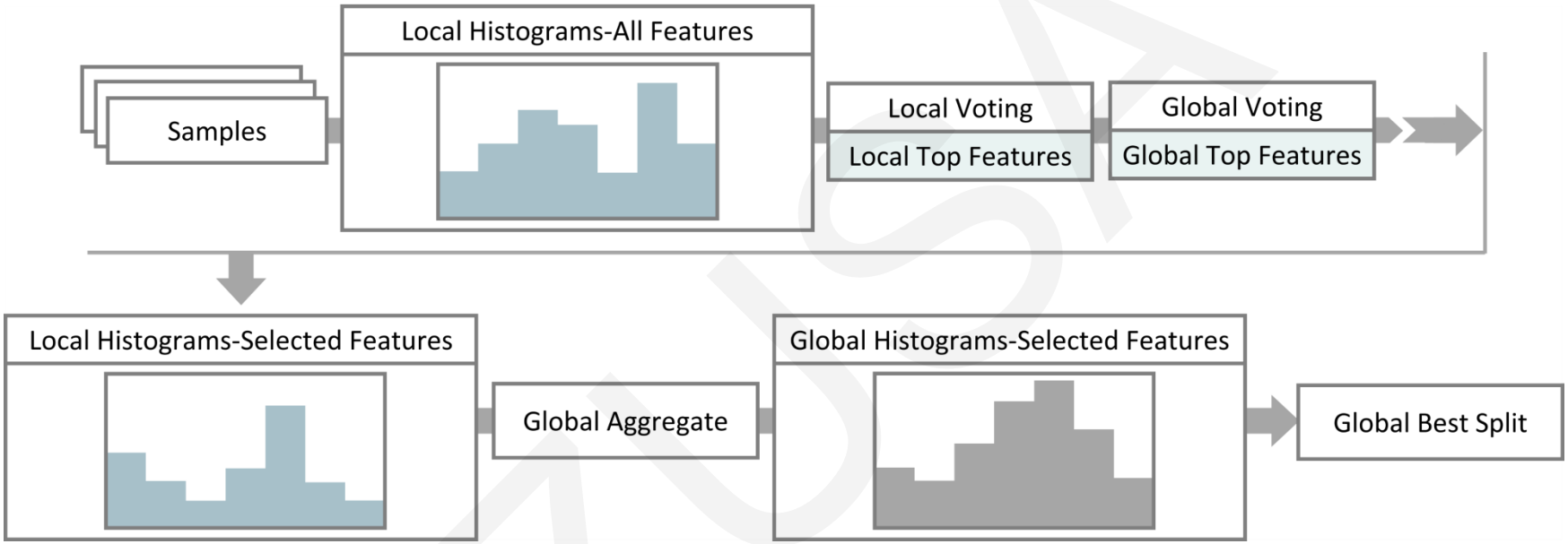

Fig. 3 Illustrations of the LightGBM modeling procedure

This paper adopted the scikit-learn package (SciPy library) based on Python 3.8 to establish LightGBM models. Optuna, an open-source hyper-parameter optimization framework, was employed to obtain better performance with less computational cost. SHapley Additive exPlanation (SHAP) values were calculated for model interpretations.

Results

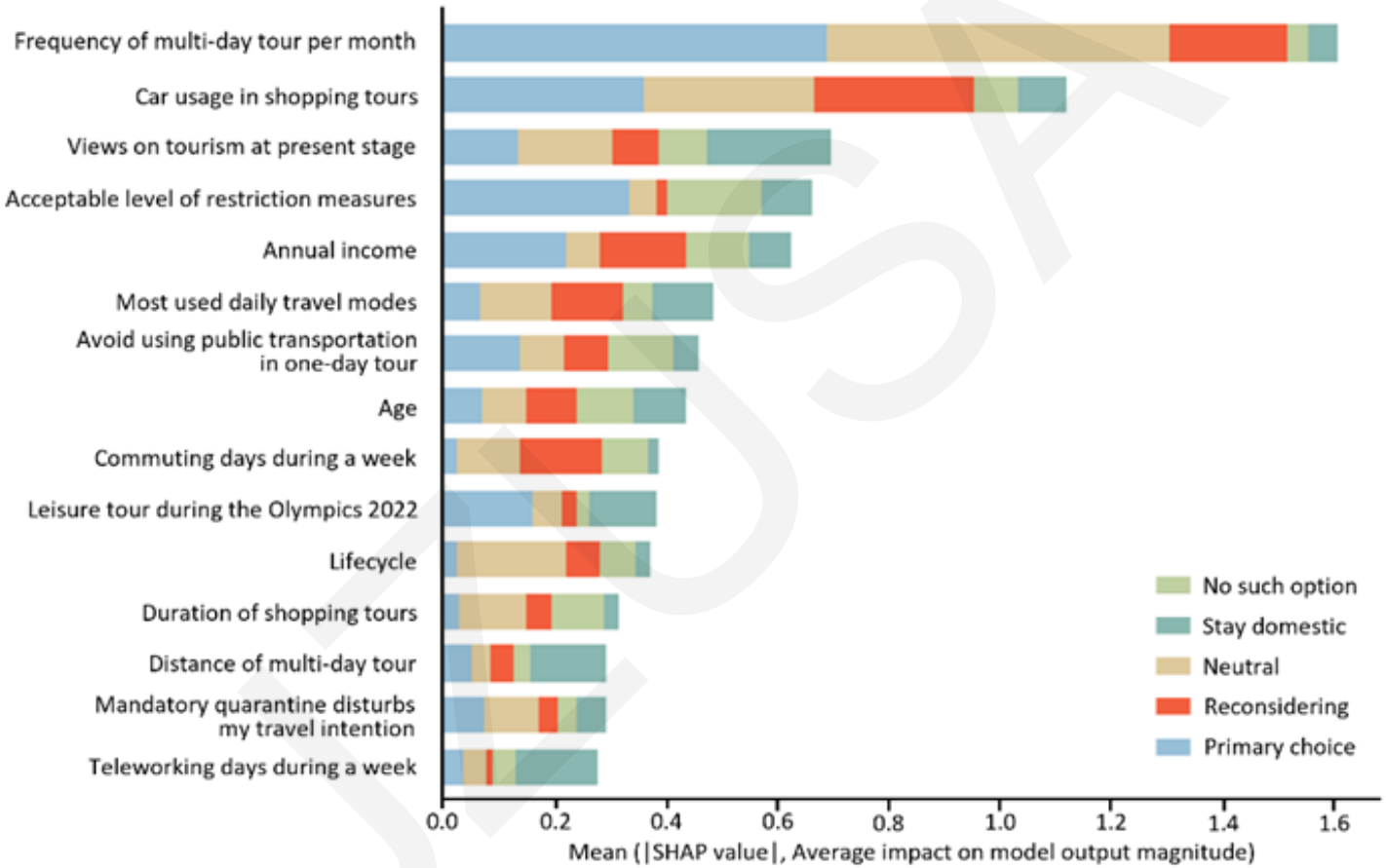

Fig. 4 SHAP summary plot

Conclusions & Discussions

- ***Findings suggest:***
- Neither one-day nor multi-day tours have resumed to pre-covid levels.
- Higher frequency of multi-day tours with further destinations, less car utilization in daily shopping trips, and moderate pandemic restrictions can boost the intention to travel abroad.
- The concerns and desires of different age groups for overseas travel need different responses.
- ***Implications:***
- This is a “moment in time” study of opinions from the Chinese, so future studies should examine other major population groups and consider how opinions are evolving.
- GNSS-based trajectory recording, and digital travel logs would reduce the burden for individuals to report daily travel patterns.

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