

How has the International Students' Choice of Universities in Japan Changed since 2020? Results from a Dual-lens Analysis

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Abstract

Since 2020, international students applying to Japanese universities have faced challenges such as restricted mobility, changes in the information environment, and increased economic uncertainty. This study examined whether these conditions were associated with changes in within-Japan university choice and applicant composition. Based on an anonymous online survey, Pre-2020 and Post-2020 cohorts (N = 343) were compared in their within-Japan university choice. Exploratory factor analysis suggested five antecedent factors and four strategy tendencies. Multi-group CFA supported cross-cohort measurement comparability and identified Post-2020 increases in selected dimensions. In the MG-SEM, the model-level comparison indicated an overall difference in structural paths, but no single path difference remained significant after multiple-testing correction. Person-centered clustering showed significant redistribution in antecedent profiles and selected cluster-specific differences in strategy tendencies. The findings suggest that the Post-2020 cohort differed in antecedent-profile distribution and reported stronger feasibility-related strategy tendencies. These results indicate that Japanese universities may need to provide clearer information, more targeted applicant support, and more flexible admission opportunities for international students.

Keywords: international students, university choice, within-country institutional choice, post-2020 change, MG-SEM, cluster analysis

1. Introduction

1.1 Background and Research Questions

Since 2020, international students have made university-choice decisions with COVID-19-related disruption, changes in the information environment, and economic uncertainty. These rapid changes are having a serious effect on Post-2020 students' ability to gather information, evaluate feasibility, and judge the risks attached to their institutional options (Kaushal & Lanati, 2019; Nakasato & Kayashima, 2021; Tenison et al., 2023). In this study, international students are defined as students who cross national borders to attend university education in Japan. Previous studies have mainly examined upstream decisions, such as whether to study abroad or which destination country to choose, and have shown that changing external conditions can redirect or delay international student mobility (Di Pietro, 2023; Mok et al., 2021; Shen et al., 2023). So far, however, less attention has been paid to the downstream process of selecting particular institutions within the host country.

At the downstream stage, applicants must consider institutional quality, location, affordability, study-plan continuity, and information credibility at the same time (Brotherhood, 2023; Gomes, 2022). Since most post-2020 evidence remains descriptive, single-period, or close to the early COVID-19 period, leaving unclear whether applicants became more concerned about familiar issues or whether antecedent–strategy relationships themselves changed. This distinction guides the following research questions:

(RQ1) Do the Pre-2020 and Post-2020 cohorts differ in the latent means of antecedent factors and decision-strategy tendencies, and are the structural links between antecedent factors and downstream strategy orientations comparable

across cohorts?

(RQ2) Does the distribution of antecedent profiles differ between the Pre-2020 and Post-2020 cohorts?

(RQ3) Are similar antecedent profiles associated with different strategy tendencies across cohorts?

1.2 Post-2020 Uncertainty and Downstream Institutional Choice

Downstream institutional choice is the stage at which general mobility uncertainty becomes a decision about particular institutions. Applicants must decide not only whether a university is attractive, but also whether admission, study, living costs, and post-entry adaptation appear manageable. In this study, part of this judgment is captured by the antecedent factor. More recently, studies have paid increasing attention not only to interpersonal support or belongingness, but also to social feasibility under adverse external conditions, including the perceived stability and practicality of studying abroad when conditions in the home country appear less favorable. Ahmed et al. (2022) reported that cross-border higher education mobility is shaped by cultural, academic, linguistic, economic, program-related, and political-climate conditions. This interpretation is consistent with evidence that destination choice is shaped by health and safety concerns, geographic proximity, economic constraints, educational opportunity, and anticipated social adaptation (Choudaha, 2017; Glass & Cruz, 2023; Mok et al., 2021). These studies show the importance of examining information, academic, career, economic, and social as antecedent factors that may shape downstream decision-strategy tendencies.

However, previous studies mainly describe these conditions as separate concerns. What remains less clear is whether these concerns can be organized into measurable antecedent factors and then compared across cohorts within the same analytic framework. This study addresses this gap by operationalizing information, academic, career, economic, and social concerns as antecedent factors and first examining their empirical structure through EFA. This step allows the analysis to move beyond descriptive accounts of what students consider and to test whether these antecedent factors differ in level across cohorts and whether their links with decision strategies remain comparable after 2020 (RQ1).

1.3 Changed Information Environments and Information-gathering Pathways

Information gathering is an important part of international student choice. Applicants differ in the information they can obtain, the sources they trust, and the ways in which they judge credibility. These differences may affect how they compare institutions, admissions procedures, and local living conditions. In recent years, increasing attention has been paid to digital tools that support information search and comparison. These include generative AI and AI-enabled recommendation systems, which can help users summarize, organize, and personalize large amounts of information (Chen et al., 2023; Delahoz-Domínguez & Hijón-Neira, 2024). Kumar and Raman (2020) found that international students used social media not as a replacement for family, friends, and alumni, but as an additional source when evaluating institutional image, safety, cultural acceptance, and financial information. Recent evidence also suggests that digital communication platforms can shape international students' access to social and cultural capital. Meng and Hunter (2025) found that WeChat helped Chinese international students overcome language barriers and maintain or form social networks while studying in Australia. This finding is relevant to the present study because information gathering is not only a matter of obtaining information; it is also connected with the social channels through which applicants judge credibility and feasibility. This suggests that digital sources may extend existing information-gathering pathways rather than simply replace older ones. These tools may reduce the cost of searching for and processing information. However, they may create new demands on applicants. Students still need to judge whether information is credible, whether different sources are consistent, and whether algorithmically presented information is appropriate for their own circumstances. Recent studies also suggest that digital communication environments, social media quality, and AI-driven personalization may shape how prospective students interpret institutional information (R. Al-Dmour et al., 2024; H. Al-Dmour et al., 2025). At the same time, evidence from higher education research suggests that acceptance of GenAI remains context-dependent, even when users perceive it as useful or easy to use (Alotaibi, 2026). In this study, GenAI is not treated as a separate shock construct. It is treated as one visible feature of a broader change in the information environment. This distinction is important for the present analysis. A post-2020 increase in information orientation would suggest that applicants placed greater weight on gathering and checking information. It would not, by itself, show that information became connected to downstream decision strategies in a different way. To distinguish between these two possibilities, this study models information gathering as a latent antecedent factor and examines whether its associations with strategy tendencies are comparable across cohorts, or whether post-2020 change appears mainly at the mean level (RQ1).

1.4 Japan's Institutional Context and the Need for a Dual-lens Design

Japan provides a useful setting for examining institutional choice within a host country. Sato (2012) suggested that location preferences are closely connected with the structure of higher education in Japan because metropolitan areas are more strongly associated with employment opportunities, future career prospects, and public visibility. This gives regional universities a structural disadvantage in attracting applicants, especially when they are smaller private institutions with lower visibility outside their local area.

This disadvantage may be stronger for international applicants. Several investigators have examined the effects of within-country institutional selection on international students. Compared with domestic students, international applicants usually have less direct knowledge of Japan's higher education landscape. Universities located in large cities may therefore become easier to recognize, easier to compare, and easier to trust as possible choices (Nicholls, 2018; Soysal et al., 2024). As a result, metropolitan universities may become the default option even when regional universities offer feasible educational alternatives.

This tendency has consequences beyond individual preference. Araki (2017) noted that regional private universities can support local communities through student enrollment, employment links, and cooperation with local governments and industries. Yanagiura and Tateishi (2024) showed that small, non-research private universities can have local economic significance in Japan, suggesting that their role should not be understood only through institutional prestige. Therefore, if international applicants overlook these institutions, regional universities may lose potential students who could contribute to local development.

The same pattern may also disadvantage international applicants. When applicants concentrate their choices on metropolitan universities, they face stronger admissions competition within a narrower set of options. Some applicants may then have to lower their target level or choose less preferred institutions, although less visible regional universities might have provided realistic alternatives. This creates a double loss: regional universities lose potential students, while applicants lose access to a broader range of institutional choices.

This problem cannot be examined adequately by asking only whether post-2020 applicants changed on average. Average differences can show whether one cohort reports stronger concerns than another, but they cannot show whether different types of applicants are being redistributed across institutional-choice profiles. They also cannot show whether applicants with similar antecedent profiles express different strategy tendencies after 2020. A more useful analysis for institutional guidance, therefore, needs to examine both structural comparability and profile-level variation.

The present study uses this dual-lens design for that purpose (Figure 1). MG-CFA and MG-SEM are used to examine measurement invariance, latent mean differences, and cohort comparability in antecedent-to-strategy paths (RQ1). K-means clustering is then used to examine whether applicants are redistributed across recurring antecedent profiles (RQ2). The same profiles are further compared across cohorts to examine whether similar applicants show different strategy tendencies after 2020 (RQ3). This combination allows the analysis to move from a simple account of change to a more practical account of what kind of institutional support may be needed.

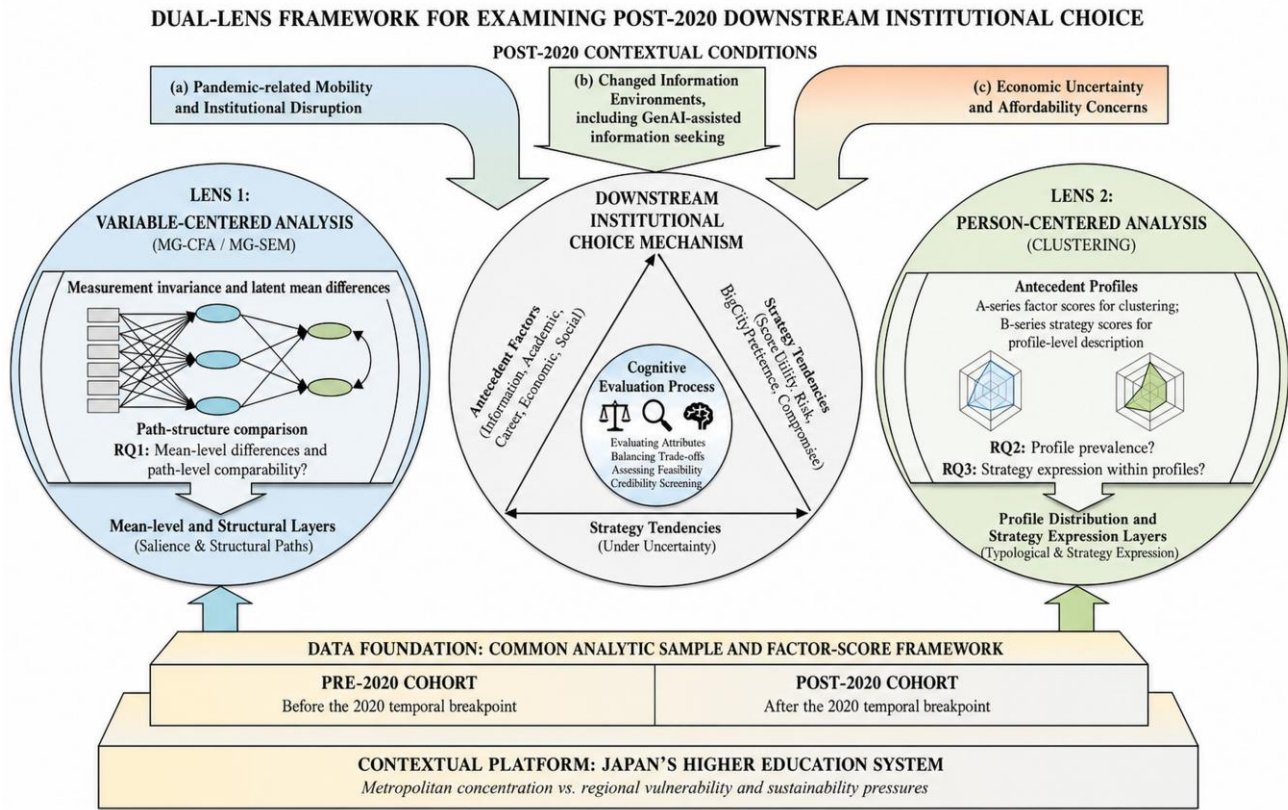


Figure 1. Conceptual Framework: A Dual-Lens Approach to Modeling Post-2020 Downstream Institutional Choice

2. Method

2.1 Participants and Process

This study used a retrospective cross-sectional survey design. Anonymous survey data were collected through Google Forms between October and December 2025. The survey link was distributed through cram schools (juku) and Japanese language schools that support international students preparing for Japanese university entrance examinations. These institutions were used mainly because of their reach within international student communities, allowing the survey information to be disseminated more widely among eligible respondents. Participants reported their university admission year and retrospectively answered questions about the considerations and strategies that shaped their university choice. For cohort comparison, respondents were classified as Pre-2020 or Post-2020 according to their year of university admission. In this study, admissions from 2015 to 2019 were classified as Pre-2020, whereas admissions from 2020 to 2024 were classified as Post-2020. The final analytic sample comprised 343 participants (Pre-2020: n = 152; Post-2020: n = 191).

Before the questionnaire, participants were informed of the study purpose, data use, voluntary participation, and absence of rewards or penalties. Responses were recorded only after consent, and participants could stop before submission. A final confirmation item asked whether their responses could be used for research. Because the survey was retrospective, participants were instructed to recall the preparation and decision-making process leading to admission.

2.2 Measurement Indicators

Antecedent factors (a1–a15). The A-items were designed to capture students’ preparatory considerations and structural constraints in university choice. Nine items were drawn from or closely aligned with Wu and Ishii (2025) to ensure comparability with a previously published scale, particularly for items reflecting academic quality orientation, career-related considerations, and resource constraints. Newly added items were anchored in prior empirical work on higher-education information seeking and pandemic-related risk and inequality. Specifically, three items on information gathering through official sources and peer/senior exemplars were informed by research emphasizing information-search activities in postsecondary choice (Lin & Kuramoto, 2022). One item captured GenAI-assisted information use (a2). According to several previous studies, this item was included to represent one

aspect of the broader change in the information environment, rather than to measure GenAI as a separate construct (Giannakos et al., 2025; Kasneci et al., 2023). Three items reflecting financial capacity and family background were framed in light of evidence that pandemic-era risk and uncertainty can amplify inequality in access to transnational education and shape educational investment decisions (Gao et al., 2024). In this study, the social factor was used to represent a broader orientation toward social feasibility under adverse external conditions, rather than interpersonal support or belongingness alone.

Decision strategies (b1–b12). The B-items were designed to measure strategy tendencies in Japanese university entrance decision-making among international students. Items on the use of EJU performance and institutional selectivity as decision cues were informed by research on test-score-supported college choice, institutional reputation, and international student destination choice (Ma, 2022; Tenison et al., 2023). Items on metropolitan preference captured the tendency to prioritize universities in major urban areas when comparing institutional options. Items on application management captured strategies such as securing a safety option, avoiding universities with extremely low acceptance probabilities, and applying to multiple institutions when examination schedules allowed. Finally, items on remaining in Japan and accepting compromise were informed by bounded rationality and satisficing perspectives, which emphasize “good enough” choices under constraints (Luan & Li, 2017; Simon, 1955).

Participants were asked to respond to all items using a 5-point Likert scale ranging from 1 (totally disagree) to 5 (totally agree). Full item wording is provided in Table 1.

2.3 Statistical Analysis

All analyses were conducted in R version 4.4.3. Exploratory factor analyses were conducted using maximum likelihood extraction with promax rotation. The EFA step was used to examine whether the theoretically anchored item pools formed empirically coherent dimensions in the present sample. It was not intended as a purely data-driven search for factors. Several core items were drawn from or closely aligned with Wu and Ishii (2025), and the newly added items were introduced to capture post-2020 information, economic, and social-feasibility conditions. The subsequent CFA-based analyses therefore focused on cross-cohort measurement comparability rather than on claiming an independent validation of a newly developed scale.

Multi-group CFA and MG-SEM models were estimated in lavaan using robust maximum likelihood estimation. We first examined cross-cohort measurement comparability and structural relations at the latent-factor level. Because the study relied on retrospective reports from two temporally defined cohorts, establishing measurement comparability was a necessary precondition for substantive comparison. We therefore tested configural, metric, and scalar invariance across the Pre-2020 and Post-2020 cohorts using multi-group confirmatory factor analysis before estimating multi-group structural equation models. Scalar invariance was especially important because latent mean comparisons require evidence that cohort differences are not primarily due to differences in item interpretation or response-scale use.

To address sample-size adequacy, sensitivity power analyses were conducted for the main cohort comparisons. Given the final sample size (Pre-2020: $n = 152$; Post-2020: $n = 191$), a two-tailed independent-groups comparison with $\alpha = .05$ and power = .80 could detect a standardized mean difference of approximately $d = .31$. For the chi-square test of the six-cluster antecedent-profile distribution, the same sample size provided .80 power to detect an effect of approximately $w = .19$ with $df = 5$. These analyses were used to evaluate the detectable effect-size range for the main latent mean comparisons and the profile-distribution test. MG-SEM cohort differences were evaluated separately through robust scaled model comparison and Holm-adjusted path-specific Wald tests, which better matched the latent-variable model, parameter constraints, and multiple path comparisons involved.

To examine heterogeneity beyond the latent-factor level, we also conducted a person-centered cluster analysis based on antecedent factor scores. Clustering was performed on the pooled sample ($N = 343$) to create a common descriptive profile space for cross-cohort comparison. This choice was made for comparability of profile description rather than to imply that both cohorts shared an identical latent typology. Prior to clustering, antecedent factor scores were transformed using Min–Max scaling so that all five dimensions were expressed on a common $[0, 1]$ range. K-means clustering was then applied to the scaled scores, and the final number of clusters was selected by considering statistical diagnostics, profile distinctiveness, and interpretability.

Cluster profiles were summarized using radar charts, and cohort differences in cluster prevalence were visualized using bar charts. To evaluate whether the distribution of antecedent profiles differed across cohorts, we conducted a Pearson’s chi-square test of independence. For cluster-specific proportional differences, post-hoc pairwise comparisons were conducted using Fisher’s exact test with Bonferroni-adjusted p values. In addition, within each

antecedent cluster, strategy-factor means were compared between the Pre-2020 and Post-2020 cohorts using Welch's two-sample t tests, with Holm-adjusted p values across the 24 cluster-by-strategy comparisons. Because these within-cluster comparisons involved smaller subgroup sizes, they were interpreted as supplementary profile-level evidence rather than as the sole basis for substantive conclusions.

3. Results

3.1 Preliminary Factor Structure (EFA)

Exploratory factor analyses were conducted for the A-series and B-series item pools using maximum likelihood extraction with promax rotation. Sampling adequacy and factorability were acceptable for both item sets (A-items: KMO = .80; Bartlett's $\chi^2(105) = 2816.47$, $p < .001$; B-items: KMO = .79; Bartlett's $\chi^2(66) = 2285.65$, $p < .001$). The cumulative variance explained was .68 for both the A-item and B-item pools. For the A-item pool, the five-factor solution corresponded to Information, Academic, Career, Economic, and Social. For the B-item pool, the four-factor solution corresponded to ScoreUtility, Risk, BigCityPreference, and Compromise. These analyses provided preliminary evidence for the empirical organization of the theoretically anchored item pools.

Table 1. Exploratory Factor Pattern Matrices for the A- and B-Item Pools (Promax Rotation, N = 343)

Panel A. Exploratory factor analysis results for a-items (15 items)					
Item	F1 (Info)	F2 (Acad)	F3 (Career)	F4 (Econ)	F5 (Social)
a7. Examples of successful admissions of seniors or peers served as a useful reference when selecting a university.	<u>.908</u>	-.189	.013	-.007	-.019
a2. Tools such as GenAI provided me with plenty of useful information and advice for university selection.	<u>.775</u>	.218	.006	-.010	.016
a12. By consulting many official university websites and application guidelines, I clarified which universities I wished to apply to.	<u>.727</u>	.062	-.009	.003	.004
a4. I want to choose a university where I can maximize my academic ability and competence.	-.073	<u>.909</u>	.031	-.069	.041
a8. In choosing a university, I valued educational quality, course content, or the university's ranking.	.010	<u>.760</u>	.028	.068	-.042
a13. Considering future study and research activities, I prioritized enrolling in an academically high-level university.	.019	<u>.750</u>	-.051	.008	-.020
a10. I want to choose a university where I can study a specialty directly related to my desired future occupation/career.	.002	-.056	<u>.913</u>	.046	-.052
a1. When selecting a university, I value graduates' employment outcomes and the availability of career support services.	.003	-.008	<u>.786</u>	.013	.008
a5. When selecting a university, I value whether it offers abundant networking and engagement opportunities with companies/society that support career development after graduation.	.003	.063	<u>.747</u>	-.044	.051
a9. Because my family provides substantial financial support, we can readily cover the costs of applying to multiple universities and expensive cram-school fees.	.017	.037	-.069	<u>.814</u>	.222

a11. I have sufficient financial resources to apply to many universities (five or more).	.008	.018	-.001	<u>.795</u>	-.043
a6. Because I do not need to work part-time to cover living expenses in Japan, I can focus on my studies.	-.025	-.031	.044	<u>.770</u>	-.078
a14. I believe Japan is economically more stable than my home country and offers more opportunities.	.020	-.032	.030	.152	<u>.839</u>
a3. Because the economic recession in my home country continues to worsen, I seek a more stable social environment through studying in Japan.	-.013	-.012	-.028	-.045	<u>.839</u>
a15. Job competition in my home country is intense, and it is extremely difficult to obtain my desired job even after graduating from university.	-.007	.014	.022	-.072	<u>.828</u>
Cronbach's α	.823	.810	.829	.820	.849
Correlation coefficient between Factors	F1	.416	.329	.341	.263
	F2		.133	.289	.088
	F3			.213	.214
	F4				.419

Panel B. Exploratory factor analysis results for b-items (12 items)

Item	F1 (Score)	F2 (Risk)	F3 (City)	F4 (Comp)
b4. I aim to maximize the advantage of my EJU score and choose the university with the highest hensachi that I can enter based on my score.	<u>.822</u>	.075	.007	.011
b8. I consider my EJU score my greatest strength in admissions and the most important factor determining my chances of acceptance.	<u>.818</u>	-.020	-.046	.025
b10. Even if I did not know much about a university beforehand, I would choose, without hesitation, the highest-level university I can enter based on my EJU score.	<u>.717</u>	-.023	.034	-.034
b12. Based on past admission data, if the acceptance rate is extremely low, I avoid applying to that university.	.013	<u>.897</u>	.038	-.078
b1. I first secured a "safety school" and then considered challenging higher-ranked universities.	-.018	<u>.823</u>	.009	-.061
b5. As long as entrance-exam dates do not overlap, I try to apply to many universities.	.045	<u>.751</u>	-.061	.271
b7. When deciding on a university, I choose only universities located in major metropolitan areas.	.033	.042	<u>.867</u>	-.047
b2. Compared with regional areas, I would prioritize universities in or near major metropolitan areas even if they are lower in status.	-.028	.038	<u>.799</u>	.010
b9. I would prioritize universities in major metropolitan areas even if tuition and living expenses	-.003	-.061	<u>.742</u>	.057

are high.

b3. Regardless of the university's level, I value staying in Japan and pursuing further education itself.

-0.099 .096 -0.012 **.921**

b11. When deciding where to continue my education, after all other decision strategies have failed, I can accept lowering my ideals and goals.

.065 -0.140 .022 **.789**

b6. If enrolling in my preferred university is difficult, I can accept enrolling in a non-preferred university for now and trying again later (e.g., by entering graduate school).

-0.006 .084 .013 **.738**

Cronbach's α

.801 .855 .819 .827

Correlation coefficient between Factors

F1 .345 .113 .092

F2 .129 .464

F3 .340

3.2 Measurement Invariance and Latent Mean Differences (MG-CFA)

Multi-group CFA models were estimated to evaluate measurement comparability across the Pre-2020 and Post-2020 cohorts. Robust fit indices for the configural, metric, and scalar models are reported in Table 2, Panel A and Panel B. The scalar model was retained for the latent mean comparisons. Although the scalar step showed a statistically significant robust χ^2 difference, changes in robust approximate fit indices were small and remained within commonly used criteria for evaluating measurement invariance (Chen, 2007; Putnick & Bornstein, 2016).

Table 2, Panel C, summarizes the latent mean differences under the scalar model. Social, Risk, and Compromise remained significant after BH-FDR adjustment. Economic and BigCityPreference showed positive mean differences before adjustment, but only BigCityPreference reached the unadjusted .05 level. Neither difference remained significant after BH-FDR adjustment. The remaining factors showed no adjusted latent mean differences.

The three latent mean differences that remained significant after BH-FDR adjustment were larger than the detectable range indicated by the sensitivity power analysis: Social ($d = .493$), Risk ($d = .405$), and Compromise ($d = .489$). By contrast, the remaining latent mean differences were small to small-to-moderate in size and did not remain significant after adjustment. These results were therefore interpreted as evidence for selected feasibility-related cohort differences, rather than as evidence for broad mean-level change across all latent factors.

Table 2. MG-CFA Measurement Invariance and Latent Mean Differences

Panel A. Model fit							
Model	χ^2	df	<i>p</i>	CFI	TLI	RMSEA	SRMR
Configural	779.39	576	< .001	.954	.944	.045	.052
Metric	795.27	594	< .001	.955	.947	.044	.053
Scalar	829.96	612	< .001	.952	.944	.045	.054
Panel B. Model comparisons							
	$\Delta\chi^2$	Δ df	<i>p</i>	Δ CFI		Δ RMSEA	
Configural → Metric	13.98	18	.730	.001		-.001	
Metric → Scalar	37.45	18	.005	-.003		.001	
Panel C. Latent mean differences (Post-2020 – Pre-2020; scalar model)							
Latent factor	Δ Mean	95% CI	<i>p</i>	d		<i>q</i> (BH-FDR)	
Information	.080	[-.153, .314]	.500	.079		.617	
Academic	-.074	[-.314, .167]	.548	-.072		.617	
Career	-.026	[-.268, .217]	.835	-.025		.835	
Economic	.187	[-.034, .409]	.097	.190		.175	
Social	.496***	[.263, .730]	< .001	.493		< .001	
ScoreUtility	-.147	[-.380, .086]	.216	-.151		.323	
Risk	.435**	[.186, .684]	< .001	.405		.002	
BigCityPreference	.235	[.004, .465]	.046	.240		.103	
Compromise	.504***	[.269, .739]	< .001	.489		< .001	

Note. Panel A reports robust fit indices. Panel B reports robust scaled chi-square difference tests and changes in approximate fit indices relative to the preceding model. In Panel C, *p* values are unadjusted, and *q* values are Benjamini-Hochberg false discovery rate adjusted across the nine latent mean comparisons. Effect sizes are reported as standardized mean differences. * *q* < .05. ** *q* < .01. *** *q* < .001.

3.3 Structural Relations and Group Comparisons (MG-SEM)

Table 3, Panel A, reports the fit indices for the free-path and equal-path multi-group SEM models. At the model level, the robust scaled chi-square difference test indicated a significant difference between the two models, robust scaled $\Delta\chi^2(20) = 36.84$, *p* = .012. However, the changes in approximate fit indices were small (Δ CFI = $-.005$; Δ RMSEA = .001; Δ SRMR = .016), and both models showed acceptable fit. Table 3, Panel B, presents the standardized structural paths for the Pre-2020 and Post-2020 cohorts. Because the model involved 20 path-specific group-difference tests, Wald tests were interpreted with Holm correction to control the familywise error risk. No individual path difference remained significant after Holm correction. These results suggest broad stability in the antecedent-to-strategy model, while not ruling out small or moderate path-specific differences. Explained variance for the endogenous latent variables is reported in Table 3, Panel C.

Table 3. MG-SEM Model Fit, Standardized Structural Paths, and Group-Difference Tests

Panel A. Model fit							
Model	χ^2	df	p	CFI	TLI	RMSEA	SRMR
Free paths	829.96	612	< .001	.952	.944	.045	.054
Equal paths	868.36	632	< .001	.947	.941	.046	.070

Panel B. Standardized regression paths in the multi-group SEM model (MLR)							
DV	IV	β_{Pre}	p_{Pre}	β_{Post}	p_{Post}	p_{diff} (Wald)	p_{diff} (Holm)
ScoreUtility	Information	.066	.572	.249*	.020	.282	1.000
ScoreUtility	Academic	.279*	.020	.149	.142	.345	1.000
ScoreUtility	Career	.293*	.013	.159	.063	.249	1.000
ScoreUtility	Economic	.234	.098	.263*	.019	.892	1.000
ScoreUtility	Social	.134	.349	-.176	.063	.075	1.000
Risk	Information	.094	.424	.219**	.005	.306	1.000
Risk	Academic	.116	.274	.002	.978	.369	1.000
Risk	Career	.090	.402	.043	.467	.710	1.000
Risk	Economic	.404**	.004	.647***	< .001	.028	.530
Risk	Social	.139	.286	.081	.270	.755	1.000
BigCityPreference	Information	.070	.616	.068	.550	.969	1.000
BigCityPreference	Academic	.206	.102	.286**	.008	.702	1.000
BigCityPreference	Career	.267*	.020	.237*	.042	.695	1.000
BigCityPreference	Economic	.148	.368	-.323**	.007	.022	.449
BigCityPreference	Social	-.082	.621	.375**	.002	.030	.548
Compromise	Information	.012	.936	.253**	.007	.148	1.000
Compromise	Academic	-.156	.261	-.091	.293	.697	1.000
Compromise	Career	.373***	< .001	.122	.282	.098	1.000
Compromise	Economic	-.024	.840	.191	.080	.166	1.000
Compromise	Social	.313*	.013	.366**	.003	.694	1.000

Panel C. Explained variance (R^2) for endogenous latent variables

	Pre-2020	Post-2020
ScoreUtility	.411	.303
Risk	.376	.706
BigCityPreference	.181	.271
Compromise	.268	.452

Note. β values are standardized coefficients. * $p < .05$, ** $p < .01$, *** $p < .001$. p_{diff} tests Pre-2020 = Post-2020 for each path via Wald constraints; Holm correction controls familywise error across the 20 paths.

3.4 Cluster Analysis and Cross-Cohort Shifts in Profile Distribution

A six-cluster solution was retained for the pooled antecedent factor scores. To avoid assigning substantive labels that could overstate the meaning of the clusters, the retained profiles are referred to only as C1–C6. The diagnostic plots used for selecting the number of clusters are provided in Appendix A, and the antecedent-factor cluster profiles are shown in Figure 2-A. As shown in Figure 2-A, C1 was characterized by relatively high antecedent-factor scores across most dimensions. C2 showed a relatively stronger academic orientation, but its information, economic, and social-feasibility scores were not equally high. C3 was marked by a more pronounced career-related orientation. C4 showed relatively stronger economic and social-feasibility scores than information or academic scores. C5 was characterized by generally lower antecedent-factor scores. C6 showed relatively higher information and academic orientations, with more moderate scores on the other antecedent dimensions. These descriptions are intended only to summarize the cluster-center patterns observed in the present sample and should not be interpreted as fixed applicant types.

Figure 2-B presents the distribution of C1–C6 by cohort. A Pearson's chi-square test of independence indicated that the overall cluster distribution differed between Pre-2020 and Post-2020, $\chi^2(5, N = 343) = 13.52, p = .019$, Cramér's $V = .199$. Cluster-specific post-hoc comparisons were then used to identify which clusters contributed most clearly to this overall difference. After Bonferroni adjustment, the proportional differences for C1 and C2 remained significant. The proportional increase in C4 was significant before adjustment but did not remain significant after Bonferroni correction; it is therefore reported as a descriptive pattern. The observed distributional effect (Cramér's $V = .199$) was close to the detectable effect size identified in the sensitivity power analysis ($w \approx .19$), suggesting that the sample size was adequate for detecting the modest profile-distribution difference emphasized here.

Figure 2-C and Figure 2-D present the cluster-specific strategy-factor comparisons. Figure 2-C shows Post–Pre differences in strategy factor scores within each cluster, whereas Figure 2-D shows the corresponding descriptive pre-to-post pattern for each strategy dimension. After Holm adjustment, significant cohort differences were observed for BigCityPreference in C3, ScoreUtility, Risk, and Compromise in C4, and ScoreUtility and Compromise in C6. These results indicate that adjusted strategy differences were limited to specific cluster-by-strategy combinations.

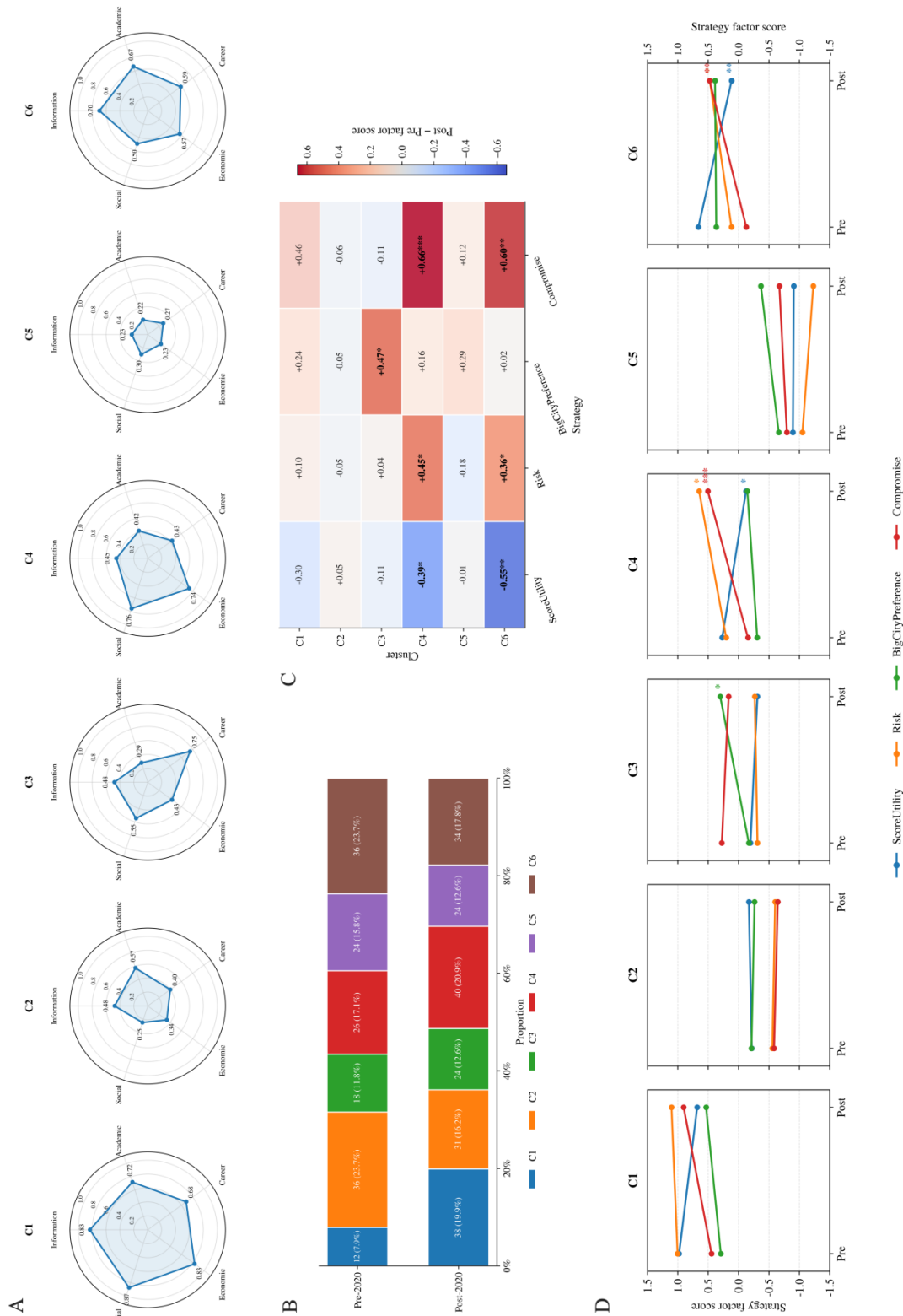


Figure 2. Cluster Profiles and Cohort Differences in Strategy Tendencies. (A) Antecedent-factor cluster profiles; (B) cohort distribution of clusters; (C) Post-Pre differences in strategy factor scores by cluster; (D) Descriptive pre-to-post trends in strategy factor scores

Notes. Panels C and D show within-cluster Post-Pre differences in strategy factor scores. Significance markers indicate adjusted within-cluster cohort comparisons: * $p < .05$, ** $p < .01$, *** $p < .001$.

4. Discussion

4.1 Stronger Feasibility-Related Concerns Within a Broadly Stable Decision Model (RQ1)

RQ1 showed stronger post-2020 feasibility-related concerns within a broadly comparable decision model. The MG-CFA results indicated higher Social, Risk, and Compromise means after 2020. The MG-SEM results were more cautious: the free-path and equal-path models differed at the model level, but approximate fit changes were small, both models fit acceptably, and no individual path difference remained significant after Holm correction. Post-2020 change therefore appeared more clearly in the level of feasibility-related concerns than in a fundamental reorganization of antecedent-to-strategy paths.

This interpretation is consistent with work on scarcity and uncertainty. Shah et al. (2012) show that limited resources can redirect attention and make trade-offs more salient even when the formal set of choices remains similar. Research on uncertainty and social support similarly suggests that predictability, control, and belonging become more consequential when future conditions are unstable (Fritsche et al., 2017; Glass & Westmont, 2014; Pyszczynski et al., 2021). The present findings extend this logic to within-Japan institutional choice. The post-2020 cohort was therefore not clearly characterized by a wholly different choice architecture, but by stronger feasibility-related judgments within a broadly stable decision structure.

This stability may be explained by the continued use of established institutional and habitual decision scripts. Research on organizational path dependence suggests that repeated practices can become self-reinforcing and continue to structure later action even when external conditions change (Sydow et al., 2009). In the Japanese university-choice context, applicants may therefore have continued to rely on familiar decision routines, such as using EJU scores, comparing institutional levels, securing safer options, and managing examination schedules. Habit research similarly suggests that repeated responses in recurring contexts can become efficient default modes of action (Wood & Runger, 2016). From a culture-in-action perspective, such routines can also be understood as internalized cultural-cognitive resources that guide action without requiring applicants to reconstruct their decision strategy from the beginning each time (Vaisey, 2009). This helps explain why post-2020 uncertainty made feasibility-related concerns more prominent without clearly reorganizing the antecedent-to-strategy structure.

One possible implication is that institutions should not treat Post-2020 applicants as making choices only on the basis of traditional considerations such as institutional reputation, location, or general attractiveness. The findings suggest that, under more immediate and salient external pressures, applicants may need clearer feasibility-related information that helps them make practical trade-offs. Such information includes admission risk, acceptance rates, the typical academic profiles of previously admitted students, application timelines, and realistic alternative routes. Providing this information would not simply promote the institution; it may also help applicants judge whether a particular institutional choice is workable under uncertainty.

4.2 Profile Redistribution and Uneven Cluster-Specific Change (RQ2)

RQ2 showed a modest but significant redistribution of antecedent profiles. C1 and C2 differed significantly after Bonferroni adjustment, while the increase in C4 remained descriptive. This indicates that post-2020 change involved not only mean-level differences but also changes in how antecedent factors were combined across applicants.

C1 was characterized by relatively high antecedent-factor scores. Its increased presence in the Post-2020 cohort suggests that, in this sample, post-2020 redistribution was not limited to applicants with low resource availability. One visible component of the Post-2020 cohort consisted of applicants who reported stronger awareness of adverse home-country conditions together with higher economic and informational resources. This pattern is consistent with the view that student mobility is embedded in family resources, social class, and educational opportunity structures, rather than being determined by aspiration alone (Brooks & Waters, 2011). Lareau's (2011) discussion of concerted cultivation also helps explain why resource-rich families may enable students to pursue academic, career, and locational advantages simultaneously. Although the increase in C4 was descriptive rather than adjusted significant, it points in the same direction: students who were able to enter the post-2020 mobility market were more likely to include profiles with fewer financial constraints.

The decline of C2 points to another side of this redistribution. In this profile, academic orientation was not accompanied by equally strong economic and information-related resources. Its reduced presence suggests that, in this sample, an academically oriented profile with weaker economic and information-related resources was less frequently represented among Post-2020 respondents. This interpretation is consistent with evidence that the pandemic intensified inequalities in access to international mobility, not only by changing students' experiences after mobility, but also by affecting who can enter mobility in the first place (Almeida et al., 2025).

These results have direct implications for international student support. Universities should not assume that Post-2020 international students usually belong to a financially disadvantaged group, nor should support be reduced to general scholarship information. The issue is more specific: institutions need to identify whether applicants lack financial resources, reliable information, or the capacity to act on the information they receive. Financial aid remains necessary, but it should be combined with more targeted support based on applicant profiles. Otherwise, institutions may continue to offer support designed for an older image of international students while missing the more differentiated needs of the post-2020 applicant pool. This support implication is consistent with recent research on international students. Zhu et al. (2025) showed that international students' experiences are shaped by global mobility and local academic expectations, while some difficulties remain less visible because of institutional unpreparedness. This suggests that universities should not treat international students as a homogeneous group or assume that standard information provision is sufficient. Support needs to address the different ways in which applicants combine resources, information, and perceived feasibility before and after admission.

Information support should also not be downplayed simply because AI tools and online sources have become widely available. The profile results suggest that information-processing capacity remains uneven across applicants, and the latent mean comparison does not support the view that the post-2020 cohort became uniformly more information-oriented. For example, C1 and C4, the two profiles that increased after 2020, showed different information-score patterns despite both increasing in share. Increased access to information therefore should not be equated with improved information judgment. AI can lower the cost of obtaining answers, summarize dispersed information, and personalize explanations, but it can also increase the burden of judging whether those answers are accurate, reliable, and applicable to the applicant's own situation (Chan & Hu, 2023; Johri et al., 2024). Miao and Holmes (2023) similarly warn that technological accessibility should not be confused with the development of responsible AI-related competencies. For Japanese universities, official information provision may therefore function not only as publicity but also as a mechanism for reducing information uncertainty before application.

4.3 Strategy Differences Within Similar Antecedent Profiles (RQ3)

RQ3 examined whether similar antecedent profiles were associated with different strategies across cohorts. The cluster analysis clarified a pattern not localized in the MG-SEM path tests: although no individual path difference remained significant after Holm correction, selected profiles showed cohort differences in strategy tendencies. Post-2020 differences were concentrated in C3, C4, and C6, with stronger risk-management and compromise-oriented tendencies and weaker reliance on score-utility strategies.

This pattern should not be read as evidence that post-2020 applicants became less ambitious. In particular, C3 showed a pronounced career orientation, and C6 also showed a high level of academic orientation. However, within these profiles, the Post-2020 cohort showed higher levels of risk-management or compromise-oriented strategies. This means that applicants could retain academic or career-oriented antecedent profiles while placing greater weight on safer or more flexible decision strategies. A more cautious interpretation is that similar antecedent profiles may have been accompanied by more guarded planning under post-2020 uncertainty. This pattern is consistent with the RQ1 findings: the broad decision model remained comparable across cohorts, but feasibility-related concerns became more prominent in the Post-2020 cohort. In other words, future-oriented goals remained present, but they had to be negotiated under practical constraints, particularly visa pressure and the perceived risk of having to return to the home country if university admission plans failed. Applicants could still value academic opportunity and career design, but they may also have needed to manage admission risk, preserve the possibility of remaining in Japan, and prepare acceptable fallback options. This interpretation is consistent with studies showing that international student choice often takes place under constraints involving self-assessment, admission uncertainty, financial burden, and time-sensitive visa or enrollment requirements (Gomes, 2022; Maringe & Carter, 2007; Wu & Ishii, 2025).

Japan's domestic admissions have diversified through general selection, school-recommendation-based selection, and comprehensive selection (Lin & Kuramoto, 2022), and recent work on entrance-examination crises highlights the need for resilient admissions systems (Terao et al., 2024). For international applicants, this issue is tied to visa timing, financial planning, and the risk of losing the opportunity to continue education in Japan. Expanding admission rounds could reduce reliance on a single high-stakes application opportunity and help universities retain qualified applicants who might otherwise withdraw under uncertainty. Universities, Japanese language schools, and cram schools could also guide applicants in combining ambitious, realistic, and safer options, making regional universities more visible as feasible alternatives.

4.4 Limitations and Future Research

Several limitations should be noted. First, because the survey information was circulated through cram schools and Japanese language schools, the sample may overrepresent applicants who were able to access information through organized preparation-support networks. Although these institutions served mainly as information-dissemination channels rather than as the exclusive sampling frame, future studies should recruit more directly from universities and other institutional settings to obtain a broader sample. In addition, following the principle of collecting only information necessary for the research questions, the survey did not collect demographic identifiers such as nationality, gender, or major. Because the present study did not aim to compare applicants by these variables. If conditions allow, future studies should collect such demographic information under appropriate ethical safeguards and examine whether these variables further shape international applicants' university-choice patterns. Second, the study relied on retrospective reports collected in 2025, and the responses may therefore have been affected by recall timing, current educational status, or post-entry experiences. Third, the six-cluster solution was selected by jointly considering statistical diagnostics, profile distinctiveness, and substantive interpretability, even though some diagnostics favored a coarser solution. It should therefore be treated as an analytically useful level of granularity for this sample, rather than as the only possible classification of international applicants. Fourth, the EFA and CFA-based analyses were conducted using the same survey sample. The EFA results should therefore be interpreted as preliminary evidence for the item structure rather than as an independent validation of the measurement model. Fifth, the path-specific group comparisons in the MG-SEM should be interpreted with caution because the analysis involved 20 path-difference tests and Holm correction. Although the sensitivity power analyses suggested that the total sample was adequate for detecting medium-sized cohort mean differences and a modest profile-distribution difference, they do not establish sufficient power for each individual MG-SEM path difference. The absence of Holm-adjusted significant path differences may therefore reflect limited power to detect small or moderate path-specific changes, rather than definitive evidence that all individual paths were identical across cohorts. Finally, the within-cluster strategy comparisons were based on smaller subgroup sizes, and these results should be interpreted with caution until they are validated in larger and more heterogeneous samples. Future studies should combine longitudinal application data, institutional admissions records, and follow-up surveys to examine how applicants' information practices, financial constraints, and risk-management strategies develop across the application process.

5. Conclusion

This study examined how international students' within-Japan university choice differed before and after 2020. The findings do not support a simple account in which the Post-2020 cohort followed an entirely different choice structure. Measurement comparability was established, and no individual antecedent-to-strategy path remained significantly different after multiple-testing correction. The main change was instead found in stronger feasibility-related concerns and a modest redistribution of applicant profiles. This distinction matters because applicants do not make institutional choices through isolated factors, but through combinations of information access, academic orientation, career planning, economic resources, and perceived social feasibility.

For Japanese universities, this distinction has practical implications. Support cannot stop at general promotion, reputation-building, or generic scholarship information. Institutions need to provide clearer information about admission risk, prior admissions patterns, application timelines, costs, and alternative routes. They also need to help applicants evaluate online and AI-generated information rather than assuming that greater information access automatically produces better decisions. More flexible admissions opportunities may further reduce unnecessary defensive compromises and help institutions retain qualified applicants who might otherwise withdraw from the process because of uncertainty, time constraints, visa pressure, or perceived risk.

Overall, the study suggests that post-2020 international student recruitment and support in Japan should be organized around transparency, feasibility, and targeted guidance. The question is not only how to attract international students, but how to understand the different combinations of constraints and resources through which they make institution-level decisions. A more person-centered view of these combinations can help universities identify where support is actually needed, especially under conditions that have become more uncertain and more unequal.

6. Statements and Declarations

6.1 Ethical Approval

This study was conducted in accordance with the ethical standards of Nagoya University and relevant data protection regulations. The use of survey data was approved by the Ethics Committee of Nagoya University (approval number: 22-1812). Participants were informed of the purpose of the study, the intended use of the data, the voluntary nature of

participation, and their right to withdraw before submission. Responses were used only after participants confirmed their consent to participate and agreed that their responses could be used for research purposes. The survey was conducted anonymously, and the data were stored securely.

6.2 Data Availability Statement

The data that support the findings of this study are not publicly available because they contain information derived from individual survey responses. An anonymized version of the data, with personally identifiable information removed, may be made available from the author upon reasonable request.

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References

- Ahmed, A., Wen, J. J. J., Flórez, M., Iacobelli, P., & Ferrer, L. (2022). Overcoming barriers in higher education mobility between Latin America, Canada and Asia: A scoping review. *International Journal of Higher Education*, 11(1), 43-58. <https://doi.org/10.5430/ijhe.v11n1p43>
- Al-Dmour, H., Al-Dmour, R., Al-Dmour, Y., & Al-Dmour, A. (2025). Transforming international student recruitment: The role of AI, personalization, and trust in Jordanian higher education. *Journal of International Students*, 15(8), 25-52. <https://doi.org/10.32674/m2fmc286>
- Al-Dmour, R., Al-Dmour, H., & Al-Dmour, A. (2024). The role of marketing mix and social media strategies in influencing international students' university choices in Jordan. *Journal of International Students*, 14(4), 642-663. <https://doi.org/10.32674/jis.v14i4.6407>
- Almeida, J., Netz, N., Nika, D., Krzaklewska, E., Aguiar, J., Botezat, A., França, T., Jokila, S., Streitwieser, B., Guðmarsdóttir, R. V., & Malet Calvo, D. (2025). The impact of the Covid-19 pandemic on social inequalities in international student mobility: A scoping review. *Comparative Migration Studies*, 13, Article 27. <https://doi.org/10.1186/s40878-025-00436-0>
- Alotaibi, N. (2026). Faculty acceptance of generative AI in higher education: A meta-analysis of TAM and UTAUT studies (2021–2025). *International Journal of Higher Education*, 15(1), 1-14. <https://doi.org/10.5430/ijhe.v15n1p1>
- Araki, T. (2017). International student recruitment and employment support as a management strategy for regional universities: The significance and role of industry–government–academia collaboration for regional revitalization. *Journal of Business Strategy Studies*, 11, 79-91. https://iba.kwansei.ac.jp/iba/journals/studies/studies_in_BandA_2017_p79-91.pdf
- Brooks, R., & Waters, J. (2011). *Student mobilities, migration and the internationalization of higher education*. Palgrave Macmillan. <https://doi.org/10.1057/9780230305588>
- Brotherhood, T. (2023). Lives on hold: Prospective international students and the #JapanTravelBan. *Journal of International Students*, 13(4), 48-67. <https://doi.org/10.32674/jis.v14i2.5334>
- Chan, C. K. Y., & Hu, W. (2023). *Students' voices on generative AI: Perceptions, benefits, and challenges in higher education*. arXiv. <https://doi.org/10.1186/s41239-023-00411-8>
- Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, 14(3), 464-504. <https://doi.org/10.1080/10705510701301834>
- Chen, Y., Jensen, S., Albert, L. J., Gupta, S., & Lee, T. (2023). Artificial intelligence (AI) student assistants in the classroom: Designing chatbots to support student success. *Information Systems Frontiers*, 25(1), 161-182. <https://doi.org/10.1007/s10796-022-10291-4>
- Choudaha, R. (2017). Three waves of international student mobility (1999–2020). *Studies in Higher Education*, 42(5), 825-832. <https://doi.org/10.1080/03075079.2017.1293872>
- Delahoz-Domínguez, E. J., & Hijón-Neira, R. (2024). Recommender system for university degree selection: A socioeconomic and standardised test data approach. *Applied Sciences*, 14(18), Article 8311. <https://doi.org/10.3390/app14188311>
- Di Pietro, G. (2023). Covid-19 and intentions to study abroad: Evidence from overseas university applications to the UK. *Higher Education Evaluation and Development*, 17(1), 23-37.

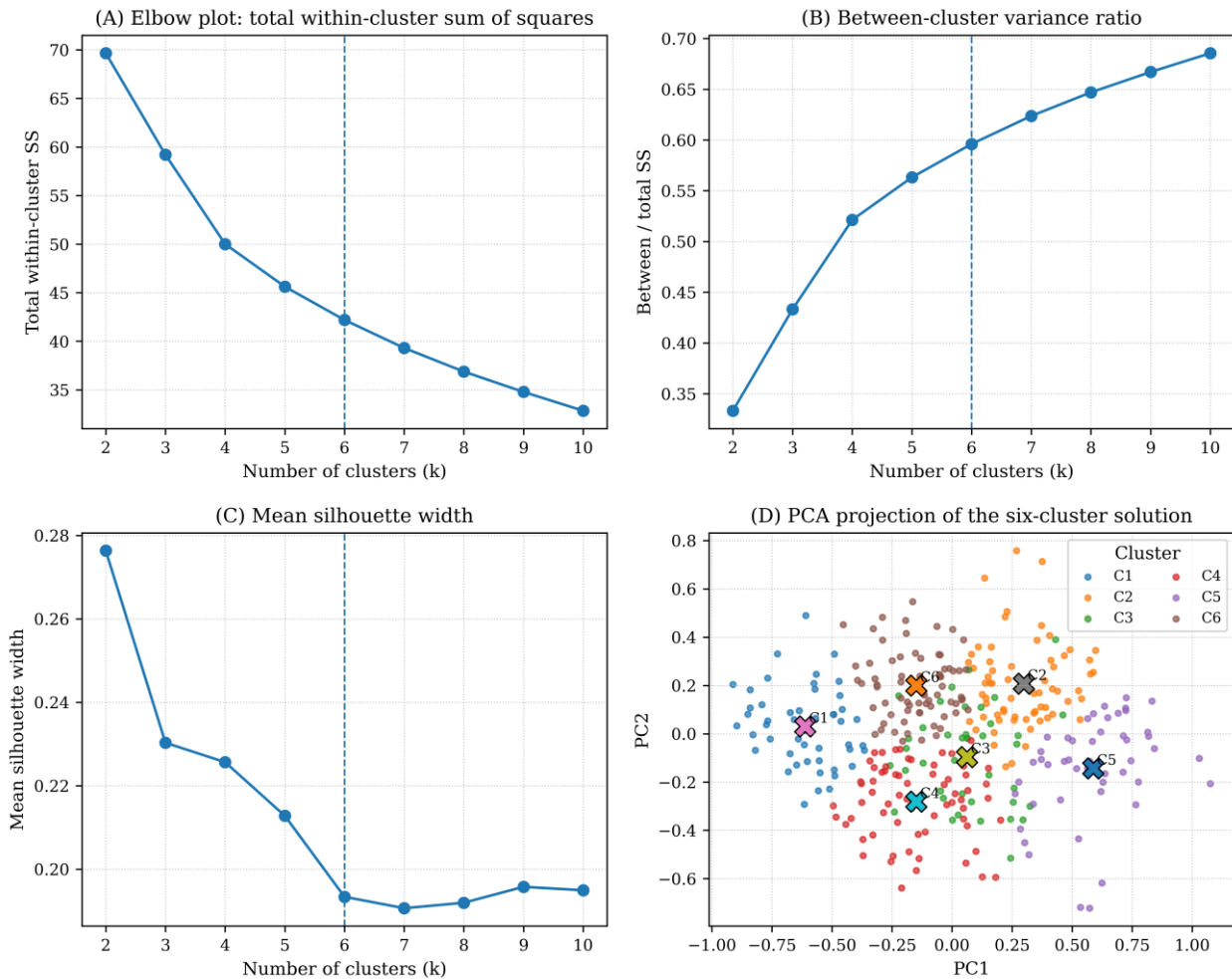
<https://doi.org/10.1108/HEED-11-2021-0080>

- Fritsche, I., Moya, M., Bukowski, M., Jugert, P., de Lemus, S., Decker, O., Valor-Segura, I., & Navarro-Carrillo, G. (2017). The Great Recession and group-based control: Converting personal helplessness into social class in-group trust and collective action. *Journal of Social Issues, 73*(1), 117-137. <https://doi.org/10.1111/josi.12207>
- Gao, C. Y., Shen, W., & Xu, H. (2024). Will COVID pandemic intensify the inequality in transnational education participation? *Asia Pacific Education Review, 25*, 1037-1050. <https://doi.org/10.1007/s12564-024-09941-w>
- Giannakos, M., Azevedo, R., Brusilovsky, P., Cukurova, M., Dimitriadis, Y., Hernández-Leo, D., Järvelä S., Mavrikis, M., & Rienties, B. (2025). The promise and challenges of generative AI in education. *Behaviour & Information Technology, 44*(11), 2518-2544. <https://doi.org/10.1080/0144929X.2024.2394886>
- Glass, C. R., & Cruz, N. I. (2023). Moving towards multipolarity: Shifts in the core-periphery structure of international student mobility and world rankings (2000–2019). *Higher Education, 85*, 415-435. <https://doi.org/10.1007/s10734-022-00841-9>
- Glass, C. R., & Westmont, C. M. (2014). Comparative effects of belongingness on the academic success and cross-cultural interactions of domestic and international students. *International Journal of Intercultural Relations, 38*, 106-119. <https://doi.org/10.1016/j.ijintrel.2013.04.004>
- Gomes, C. (2022). Shock temporality: International students coping with disrupted lives and suspended futures. *Asia Pacific Education Review, 23*, 527-538. <https://doi.org/10.1007/s12564-022-09793-2>
- Johri, A., Hingle, A., & Schleiss, J. (2024). Misconceptions, pragmatism, and value tensions: Evaluating students' understanding and perception of generative AI for education. In *2024 IEEE Frontiers in Education Conference (FIE)*. IEEE. <https://doi.org/10.1109/FIE61694.2024.10893017>
- Kasneji, E., Seßler, K., KÜchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Günnemann, S., Hüllermeier, E., Krusche, S., Kutyniok, G., Michaeli, T., Nerdel, C., Pfeffer, J., Poquet, O., Sailer, M., Schmidt, A., Seidel, T., ... Kasneji, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences, 103*, Article 102274. <https://doi.org/10.1016/j.lindif.2023.102274>
- Kaushal, N., & Lanati, M. (2019). International student mobility: Growth and dispersion (Working Paper No. 25921). *National Bureau of Economic Research*. <https://doi.org/10.3386/w25921>
- Kumar, V., & Raman, R. (2020). Social media by Indian universities—Does it convince or confuse international students in university choice? *International Journal of Higher Education, 9*(5), 167-180. <https://doi.org/10.5430/ijhe.v9n5p167>
- Lareau, A. (2011). *Unequal childhoods: Class, race, and family life* (2nd ed.). University of California Press. <https://doi.org/10.1525/9780520949904>
- Lin, R., & Kuramoto, N. T. (2022). A comparative study on the information gathering behavior for university matriculation of Chinese and Japanese high school students. *Japanese Journal for Research on Testing, 18*(1), 39-55.
- Luan, M., & Li, H. (2017). Good enough—Compromise between desirability and feasibility: An alternative perspective on satisficing. *Journal of Experimental Social Psychology, 70*, 110-116. <https://doi.org/10.1016/j.jesp.2017.01.002>
- Ma, A. S. (2022). Assessing the effects of university reputation and city image on international student destination choice: Evidence from a flagship university in Taipei. *Education and Urban Society, 54*(8), 992-1009. <https://doi.org/10.1177/00131245211013844>
- Maringe, F., & Carter, S. (2007). International students' motivations for studying in UK HE: Insights into the choice and decision making of African students. *International Journal of Educational Management, 21*(6), 459-475. <https://doi.org/10.1108/09513540710780000>
- Meng, X., & Hunter, L. (2025). Understanding the impact of WeChat use on Chinese international students' social and cultural capital in Australia. *International Journal of Higher Education, 14*(4), 84-94. <https://doi.org/10.5430/ijhe.v14n4p84>
- Miao, F., & Holmes, W. (2023). *Guidance for generative AI in education and research*. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000386693>

- Mok, K. H., Xiong, W., Ke, G., & Cheung, J. O. W. (2021). Impact of COVID-19 pandemic on international higher education and student mobility: Student perspectives from mainland China and Hong Kong. *International Journal of Educational Research*, 105, Article 101718. <https://doi.org/10.1016/j.ijer.2020.101718>
- Nakasato, L., & Kayashima, N. (2021). Student mobility to Japan in the age of COVID-19: A matter of degree (Knowledge Report No. 2). *JICA Ogata Sadako Research Institute for Peace and Development*. https://www.jica.go.jp/english/jica_ri/publication/knowledge/knowledge_report_02.html
- Nicholls, S. (2018). Influences on international student choice of study destination: Evidence from the United States. *Journal of International Students*, 8(2), 597-622. <https://doi.org/10.32674/jis.v8i2.94>
- Putnick, D. L., & Bornstein, M. H. (2016). Measurement invariance conventions and reporting: The state of the art and future directions for psychological research. *Developmental Review*, 41, 71-90. <https://doi.org/10.1016/j.dr.2016.06.004>
- Pyszczynski, T., Lockett, M., Greenberg, J., & Solomon, S. (2021). Terror management theory and the COVID-19 pandemic. *Journal of Humanistic Psychology*, 61(2), 173-189. <https://doi.org/10.1177/0022167820959488>
- Sato, Y. (2012). Efforts and issues in regional revitalization through accepting international students. *Web Magazine Ryugakusei Koryu*, 15, 1-9. https://www.jasso.go.jp/ryugaku/related/kouryu/2012/_icsFiles/afieldfile/2021/02/18/satoyuriko.pdf
- Shah, A. K., Mullainathan, S., & Shafir, E. (2012). Some consequences of having too little. *Science*, 338(6107), 682-685. <https://doi.org/10.1126/science.1222426>
- Shen, W., Chai, Y., Gu, F., Zhang, K., Feng, J., Liu, X., & Mo, Z. (2023). Fighting against risks and uncertainties: Chinese university students' decision-making about study abroad under COVID-19. *Journal of International Students*, 13(3), 305-322. <https://doi.org/10.32674/jis.v13i3.4807>
- Simon, H. A. (1955). A behavioral model of rational choice. *The Quarterly Journal of Economics*, 69(1), 99-118. <https://doi.org/10.2307/1884852>
- Soysal, Y. N., Baltaru, R. D., & Cebolla-Boado, H. (2024). Meritocracy or reputation? The role of rankings in the sorting of international students across universities. *Globalisation, Societies and Education*, 22(2), 252-263. <https://doi.org/10.1080/14767724.2022.2070131>
- Sydow, J., Schreyögg, G., & Koch, J. (2009). Organizational path dependence: Opening the black box. *Academy of Management Review*, 34(4), 689-709. <https://doi.org/10.5465/amr.34.4.zok689>
- Tenison, C., Ling, G., & McCulla, L. (2023). Supporting college choice among international students through collaborative filtering. *International Journal of Artificial Intelligence in Education*, 33, 659-687. <https://doi.org/10.1007/s40593-022-00307-0>
- Terao, T., Uchida, T., Ishii, H., Hayashi, A., Nakamura, H., Tatewaki, Y., Nishigori, D., Miyamoto, T., Kubo, S., & Kuramoto, N. (2024). Our experience of crises in the recent university entrance examinations: Pandemics, natural disasters, stabbing, cheating and other unforeseen risks. *Japanese Journal for Research on Testing*, 20(1), 43-71. https://doi.org/10.24690/jart.20.1_43
- Vaisey, S. (2009). Motivation and justification: A dual-process model of culture in action. *American Journal of Sociology*, 114(6), 1675-1715. <https://doi.org/10.1086/597179>
- Wood, W., & Rünger, D. (2016). Psychology of habit. *Annual Review of Psychology*, 67, 289-314. <https://doi.org/10.1146/annurev-psych-122414-033417>
- Wu, Q., & Ishii, H. (2025). Decision strategies and influencing factors of international students' university entrance in Japan. *Journal of International Students*, 15(10), 61-84. <https://doi.org/10.32674/myc3w256>
- Yanagiura, T., & Tateishi, S. (2024). Local economic impact of small, non-research private universities: Evidence from Japan. *Economics of Education Review*, 102, Article 102576. <https://doi.org/10.1016/j.econedurev.2024.102576>
- Zhu, M., Nevarez-La Torre, A., & Yu, Q. (2025). Understanding Chinese international students' experiences in the U.S. higher education through the trans constructs of transnationalism, transculturalism, and translanguaging. *International Journal of Higher Education*, 14(6), 43-58. <https://doi.org/10.5430/ijhe.v14n6p43>

Appendix A

Diagnostic Plots for Selecting the Six-Cluster Solution



Note. Panels A-D show the elbow plot, between-cluster variance ratio, silhouette width, and PCA projection. Although silhouette favored a coarser solution, $k = 6$ was retained as an interpretable profile-comparison granularity, not as a definitive classification.

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