

Too many choices, too few applications: Decision fatigue and application abandonment in international higher education choice

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Abstract: This study examines whether choice complexity and information overload are associated with decision fatigue in international higher-education choice, and whether fatigue is in turn associated with non-submission of started applications, reliance on university rankings, and delegation of the decision to parents or advisers. A cross-sectional survey was conducted between October and December 2025 among India-based applicants, offer-holders, international students, and recent graduates; of 1,800 responses received, 1,755 were retained after quality screening. Regression, serial mediation, and robustness analyses tested the proposed sequence. Respondents initially considered a mean of 11.92 universities and submitted a mean of 3.17 applications, with a mean non-submission rate of 16.8%. Choice complexity and information overload, with demographic, family, and consultant-use controls, explained 28.7% of the variance in decision fatigue, with information overload being the stronger predictor. Higher fatigue was associated with greater non-submission, reliance on rankings, and delegation. Consultant use was associated with lower non-submission, although the cross-sectional design does not establish causation. The findings suggest that a final application portfolio may reflect process burden as well as preference. Schools, universities, families, and advisers may reduce avoidable attrition by structuring comparisons, clarifying constraints early, and staging application tasks.

Keywords: *Application non-submission, Choice overload, Decision fatigue, Education consultants, India, Information overload, International students, Parental involvement, University choice.*

1. Introduction

International higher education choice is commonly presented as a search for the institution that best matches a student's academic goals, financial circumstances, and career aspirations. In reality, the process is neither a single decision nor a clean comparison among stable alternatives. Applicants move through a sequence of overlapping judgments: where to study, what subject to pursue, which institutions are credible, how much financial risk is acceptable, which admissions requirements can be met, and which applications deserve scarce time before a deadline. The final application portfolio is therefore the product of both preference and process.

Classic models of college choice describe aspiration, search and selection as linked stages shaped by individual characteristics, institutional attributes and social context [1-3]. Research on international student mobility adds country-level push and pull factors, institutional reputation, programme characteristics, cost, immigration policy and expected career returns [4-6]. Mobility scholarship has also moved beyond linear choice models, calling for integrative accounts that situate the decision within family, economic and life-course contexts [7, 8] and showing that real decision processes mix strategising with spontaneity [9]. Recent work continues to show that international applicants evaluate multiple layers of value rather than responding to a single dominant factor [10-13].

Yet most empirical studies observe what applicants say matters, where they enrol, or which institution they finally choose. They rarely examine applications that were seriously considered or formally begun but never submitted. That omission matters because non-submission may not indicate

that an institution became undesirable. An application may be abandoned because essays accumulate, portals demand different documents, financial information remains uncertain, deadlines overlap, or the applicant becomes mentally tired of making further comparisons. A final list can consequently appear more deliberate and coherent than the route by which it was produced.

This paper proposes decision fatigue as a mechanism linking a complicated opportunity set to application attrition. Decision fatigue is defined here as the subjective experience of reduced persistence, impaired concentration, and a growing desire to simplify or delegate after sustained decision activity. The construct is used cautiously. The study does not assume that decisions consume a fixed biological resource, a claim debated within the ego-depletion literature. Instead, it treats fatigue as a measurable experiential state that may arise when demands exceed an applicant's available time, attention, and self-regulatory capacity [14–16].

The proposed sequence is straightforward. A large and heterogeneous set of choices is difficult to compare. Difficulty produces information overload when available material exceeds the applicant's capacity to organise and evaluate it. Overload contributes to fatigue. Fatigue, in turn, increases the appeal of stopping, postponing, relying on a salient heuristic such as ranking position, or allowing another person to make the decision. These outcomes are not necessarily irrational. Simplification can be adaptive. The concern is that the simplification rule may be weakly aligned with the student's original priorities.

The study makes four contributions. First, it shifts the unit of analysis from final enrolment to the application funnel. Second, it examines choice complexity, information overload, and fatigue within a hypothesised sequential framework for international university choice, tested here with cross-sectional survey data from a single national context (India). Third, it distinguishes informational assistance from substantive delegation to parents or consultants. Fourth, it provides a self-reported behavioural outcome, non-submission of an application already started, that can be examined alongside attitudinal measures.

2. Literature Review and Hypotheses

2.1. Higher Education Choice as a Constructed Process

College-choice research has long rejected the idea that students simply select the objectively best institution. Chapman [1] emphasised the interaction between student characteristics, significant persons and institutional efforts. The three-phase model proposed by Hossler and Gallagher [2], predisposition, search and choice, similarly located the final decision within a longer process of aspiration and information gathering. Later models incorporated social position, access to resources, and how institutional habitus constrains the options that appear realistic [3]. Reviews of this literature note that it has concentrated on the factors students weigh and the institution they finally select, rather than on the decision process itself [17].

Choice is also constructive. Preferences can be created or revised during comparison rather than merely retrieved from memory [18]. Decision-makers alter strategies as task demands change, often trading accuracy for effort [19]. In higher education, this means that a programme initially valued for curricular fit may later be displaced by one with a simpler application, a more familiar brand, or a clearer scholarship outcome. The final portfolio should therefore be understood as a process-dependent construction.

International applications intensify construction because options belong to different national systems. Degree structures, admissions conventions, costs and labour-market pathways are not directly comparable. Push-pull models capture broad motivations for mobility [4], while institutional-choice studies identify reputation, programme quality, cost, location, recommendations and career prospects as recurring influences [20, 21]. More recent studies confirm the continuing importance of academic quality and career expectations while also showing that applicants respond to place, personal development, family circumstances and changing geopolitical conditions [5, 10, 11, 22]. Pandemic-era research showed how quickly perceived risk can reorganise families' destination calculations [23, 24]

and studies of Indian applicants specifically confirm that family, cost and career considerations dominate their reasoning [25].

2.2. Choice Complexity and Information Overload

Choice overload is often described as the possibility that additional options can reduce motivation, satisfaction, or decision quality. The influential experiment by Iyengar and Lepper [26] suggested that extensive choice sets may attract attention while discouraging action. Subsequent research produced mixed findings. A meta-analysis by Scheibehenne et al. [27] found no universal overload effect, while Chernev et al. [28] showed that overload depends on conditions such as task difficulty, preference uncertainty, decision goal, and choice-set complexity. The relevant question is therefore not whether more choice is inherently harmful, but when a choice environment becomes difficult enough to impair progress.

Complexity is multidimensional. The number of universities matters, but so do the number of attributes, the comparability of information, the diversity of national systems, and the applicant's certainty about what they value. A shortlist of eight highly dissimilar programmes can be harder to evaluate than a longer list governed by one clear criterion. Tversky and Shafir [29] showed that conflict can produce decision deferral, while Dhar [30] demonstrated that difficult trade-offs can increase the likelihood of choosing none of the available options. Work on other high-stakes, multi-attribute choices reaches a similar conclusion: decision-makers simplify complex problems by reducing the number of attributes they actively represent rather than by evaluating the full option set [31]. These findings are directly relevant to applications: an applicant can preserve several attractive possibilities in principle while failing to complete any demanding one in practice.

Information overload occurs when the volume or complexity of information impairs processing rather than improving it. Reviews distinguish overload from simple information abundance and emphasise the relationship between environmental supply and limited cognitive capacity [32-34]. Digital environments can worsen the problem by multiplying sources, notifications and inconsistent advice. Contemporary higher education applicants navigate rankings, institutional websites, social media, online forums, consultant recommendations and peer testimony. Recent research links digitally mediated demands to fatigue and reduced engagement, although each strand concerns a distinct construct: social overload on networking sites is associated with exhaustion and discontinuous use [35], videoconference fatigue can be measured in higher-education contexts [36], and study demands and resources are associated with student engagement and task performance [37]. Mobile social networking has been associated more directly with perceived information overload and its well-being costs [38], and recent work connects fear of missing out and digital addiction with technostress among university students [39].

Hypothesis 1: Greater perceived choice complexity will be associated with greater information overload.

2.3. Decision Fatigue as a Process Mechanism

Decision fatigue has been used to describe declining persistence, increased reliance on shortcuts, and avoidance after repeated decisions. Early studies linked sequential choice to reduced self-control and simplified judgment [40]. The broader resource-depletion account has since been challenged by replication difficulties and theoretical debate [14, 15], including a multisite preregistered test that found little evidence for the classic depletion effect [41]. Conceptual work has accordingly reframed decision fatigue as a domain-situated experience of depleted decisional capacity rather than a general resource [42], and empirical studies continue to document it in demanding applied settings [43, 44]. In consumer contexts, choice overload and decision fatigue have been linked to regret and poorer decision experiences [45]. For this reason, the present study does not infer depletion from the mere number of decisions. Domain-specific fatigue scales developed in adjacent areas provide a precedent for this

approach [46]. The present study measures applicants' reported difficulty concentrating, desire to stop comparing, and tendency to postpone or simplify.

This experiential framing aligns with demands-resources approaches. Study Demands-Resources theory proposes that sustained demands can generate strain when they are not balanced by adequate personal and contextual resources [16]. Related psychometric work shows that specific forms of digitally mediated demand can be measured as antecedents of fatigue in higher education [36], while van Zyl et al. [37] demonstrate the value of distinguishing study demands from resources rather than treating all academic pressure as one construct. Application work is not identical to coursework, but it has comparable features: deadlines, administrative complexity, uncertainty, repeated evaluation, and limited control.

Fatigue should be especially consequential at the completion stage. Beginning an application signals more than casual awareness, but submission may require multiple essays, recommendations, transcripts, test reports, and financial documents. The marginal effort of one more application is therefore not constant. When fatigue is high, an applicant may abandon a preferred option while completing a less preferred but easier one.

Hypothesis 2a: Choice complexity will be positively associated with decision fatigue. Hypothesis 2b: Information overload will be positively associated with decision fatigue. Hypothesis 3: Decision fatigue will be positively associated with the proportion of started applications that are abandoned.

2.4. Rankings as a Simplifying Heuristic

Rankings convert a multidimensional educational decision into an ordinal signal. They can reduce search costs, provide a common language for families, and offer a rough indicator of institutional standing. At the same time, ranking methodologies aggregate indicators that may have little connection to an individual student's programme-level priorities. Their influence extends beyond information provision because rankings shape institutional behaviour and public notions of prestige [47], and rankings have proved remarkably durable despite two decades of methodological critique [48, 49].

Students do not necessarily follow rankings mechanically. Research suggests that rankings are more influential for some applicants, institutions, and stages of search than others [50, 51]. In a fatigued state, however, ranking position may become attractive precisely because it resolves comparison. It substitutes a visible, socially defensible number for a difficult evaluation of curriculum, pedagogy, cost, and personal fit.

Hypothesis 4: Decision fatigue will be positively associated with reliance on university rankings.

2.5. Parents, Advisers and Decision Delegation

Families influence educational aspiration, information access, affordability and final choice. Parents may act as emotional supporters, financial gatekeepers, information providers or substantive decision-makers. Their role is particularly visible in international education, where the decision carries large financial and geographic consequences [52, 53], where families attach imagined futures to mobility itself [54], and where parental preferences can prompt students to change educational decisions altogether [21]. Family influence also varies by social and cultural context and should not be reduced to interference. It can supply expertise, risk assessment, and stability.

Professional advisers and education consultants occupy a similarly ambiguous position. They may reduce overload by filtering options, interpreting requirements and sequencing tasks. They may also widen the set of alternatives, introduce institutional incentives or encourage applications that require further work; commission-based agents in particular operate under documented conflicts of interest that governments have begun to regulate [55, 56], and parts of their filtering role may be reshaped by generative artificial intelligence [57]. The interactive model proposed by McNicholas and Marcella [12] of postgraduate course choice reinforces the idea that international choices develop through

iterative exchanges with information sources and other actors rather than through isolated individual deliberation.

Delegation must be separated from support. A parent who organises financial documents reduces administrative load without necessarily controlling the educational choice. A consultant who creates a deadline calendar may preserve student agency, whereas one who determines the final list assumes substantive authority. The present study therefore tests parental involvement and consultant use separately and treats delegation as an outcome.

Hypothesis 5: Decision fatigue will be positively associated with decision delegation.
Hypothesis 6: Parental involvement will be positively associated with decision delegation.
Research Question 1: Is consultant use associated with decision fatigue and application abandonment after relevant controls?

3. Method

3.1. Design and Participants

A cross-sectional survey design was used, with data collected between October and December 2025. The analytical sample comprised 1,755 respondents after quality screening. Participants represented four stages of the international higher education journey: current applicants (29.9%), offer-holders (18.8%), current international students (29.1%), and recent graduates (22.2%). Both undergraduate and postgraduate pathways were included. The sample was heterogeneous in age, home-city type, prior educational background, parental education, household-income band, destination, and consultant use. All respondents were based in India and recruited through Indian schools, colleges, counselling networks, and social-media communities; household income was reported in Indian rupees, and home location was classified using Indian metropolitan/tier categories (see Section 3.1 recruitment and Supplementary Material S1). The findings should therefore be read as evidence about India-based international-university applicants rather than a globally representative sample.

Respondents were eligible when they had seriously considered, started, or completed applications to institutions outside their home country. The sample included 868 consultant users (49.5%) and 887 non-users (50.5%). Undergraduate applicants and students constituted 58.6% of the retained sample. The mean age was 22.49 years ($SD = 3.51$; range, 17–41). Women represented 50.3% and men 47.2%; the remaining 2.5% selected another identity or preferred not to state their gender. Half of the sample (50.6%) came from metropolitan areas, 26.1% from Tier 1 non-metropolitan cities, and 23.3% from Tier 2 or Tier 3 cities and towns. Prior educational background was most often a private national curriculum (57.2%), followed by an international curriculum (24.6%) and government or aided schooling (13.9%). Reported household income was distributed across bands, with 25.7% in the ₹25–50 lakh band, 25.0% in the ₹10–25 lakh band, 18.6% in the ₹50 lakh–₹1 crore band, 13.6% below ₹10 lakh, 9.9% above ₹1 crore, and 7.2% declining to state. The highest level of education completed by either parent was a master's or professional qualification for 38.7%, a bachelor's degree for 35.1%, below a bachelor's degree for 19.0%, and a doctorate for 7.2%. The most frequently reported destinations were the United States (30.1%), the United Kingdom (23.4%), Continental Europe (13.5%), Canada (12.6%), and Australia (8.5%).

Recruitment followed a purposive, multichannel procedure designed to reach people at different points in the international-application process. Invitations were distributed through secondary schools, undergraduate colleges, education-counselling networks, student and alumni mailing lists, and social-media communities concerned with overseas study. The invitation described the study as research on how applicants compare and complete international university applications. Participation was voluntary and uncompensated. The field period ran from October to December 2025, with reminder messages issued after approximately two and five weeks. To reduce dependence on a single professional network, no more than 15% of completed responses were accepted from any one school, college, counselling organisation, or online community. The median completion time was 8.5 minutes (interquartile range, 6.3–11.7 minutes).

3.2. Ethical Approval and Informed Consent

The study protocol was reviewed and approved by the Zigma Six Ethics Review Board, Mumbai, India (approval number SS/2025/192-12, granted 14 September 2025), before data collection. The Board is registered with the United States Department of Health and Human Services, Office for Human Research Protections (IRB registration number IRB00015192), and holds Federalwide Assurance FWA00036459. All methods were performed in accordance with the United States Federal Policy for the Protection of Human Subjects, the ethical standards of the American Psychological Association, and the Indian Council of Medical Research Ethical Guidelines for Biomedical Research on Human Subjects.

The survey opened with an information page setting out the purpose of the study, the topics covered, the approximate completion time, the voluntary and uncompensated nature of participation, the right to withdraw at any point before submission, and the arrangements for data storage and anonymity. Respondents provided informed consent electronically before any survey item was displayed. No directly identifying information was collected, and responses were stored and analysed in de-identified form.

Eligibility was restricted to respondents aged 17 years or older; ages in the analysed sample ranged from 17 to 41 years ($M = 22.49$, $SD = 3.51$). Sixty retained respondents (3.4%) were aged 17. Under the approved protocol, these respondents provided their own consent because they were prospective or current applicants making educational decisions about themselves and because the study involved no more than minimal risk. This approach reflects the approved protocol's judgement that self-consent was appropriate given the minimal-risk nature of the study and the fact that the participant, not a parent, is the person making the real-world educational decision the study asks about; it is consistent with, though not a direct quotation of, the 'mature minor' rationale used in low-risk research more generally.

3.3. Measures

Choice complexity was measured with four items assessing the difficulty of comparing institutions, the number of relevant attributes, and uncertainty about how to organise alternatives. Information overload was measured with four items assessing excessive, fragmented, or contradictory information. Decision fatigue was measured with six items, including one reverse-worded item, covering mental tiredness, reduced concentration, postponement, and the desire to stop comparing.

Parental involvement was assessed with four items addressing the frequency and intensity of parental participation. Ranking reliance was measured with three items capturing the use of rankings as a shortcut or decisive criterion. Decision delegation was measured with three items assessing the extent to which another person determined or substantially narrowed the final list. Consultant users completed three additional support items; this consultant-support scale is reported in Table 1 for completeness but, given its low reliability ($\alpha = .41$) and restriction to consultant users, is not used as a predictor in the regression models below.

All attitudinal items used five-point response scales from 1 (strongly disagree) to 5 (strongly agree). Scale scores were calculated as the mean of the items a respondent answered; the construction rule and a stricter-threshold robustness check are described in Section 3.5. Higher scores indicated more of the named construct. The full instrument is reproduced in Supplementary Material S1.

Application-funnel measures recorded the number of universities initially considered, seriously researched, and shortlisted, together with applications started and submitted. Applications abandoned were calculated as started minus submitted. The primary behavioural outcome was the abandonment rate: the proportion of started applications not submitted. For the 29.9% of respondents who were current applicants at the time of the survey (fielded October to December, ahead of many January deadlines), an unsubmitted application may still have been in progress rather than genuinely abandoned; this measure is therefore most secure for offer-holders, current students and recent graduates, whose application cycles had concluded, and Section 4.8 reports the primary analyses again after excluding current applicants.

3.4. Data Quality and Analysis

Records were screened for implausibly short completion times, extensive item nonresponse, near-zero response variation, and logical inconsistencies in the application funnel, consistent with current recommendations for identifying careless responding in survey data [58]. Forty-five of 1,800 records were flagged and excluded, leaving 1,755 cases. The retained sample preserved ordinary item-level missingness rather than using complete-case deletion for all analyses.

Internal consistency was assessed with Cronbach's alpha for transparency and comparability with earlier literature. Descriptive statistics and Pearson correlations were calculated first. Heteroskedasticity-consistent ordinary least-squares models were then used to test the proposed associations. Decision fatigue was regressed on choice complexity, information overload, parental involvement, consultant use, age, study level, and metropolitan residence. Application abandonment was regressed on decision fatigue and the same predictors. Ranking reliance and delegation were modelled as separate outcomes, each regressed on decision fatigue, parental involvement, consultant use, age, study level, and metropolitan residence; choice complexity and information overload were omitted from these two models because they are theorised to act on the simplification outcomes through fatigue. Because abandonment is bounded and derived from counts, the linear model is best viewed as an interpretable approximation; a binomial generalised linear model is reported as a robustness check in Section 4.7, together with a serial mediation test of the full sequence in Section 4.6, a fuller confounder set, and a formal test of stage moderation.

The exclusion rules were fixed before outcome modelling. A record was flagged for exclusion when any of the following applied: completion time below 180 seconds; within-person standard deviation below 0.32 across all answered Likert items, indicating near-straight-lining (for consultant users, this basis includes the three consultant-support items, which non-users were not shown); eight or more unanswered Likert items; or a logical funnel violation in which a later stage exceeded an earlier stage (for example, applications submitted exceeding applications started, or applications started exceeding universities shortlisted). Records meeting one or more rules were reviewed as a single flagged group and excluded from the primary analysis. Thirty-one records were flagged on completion time, eleven on funnel logic, and seven on response variation, with four records meeting more than one rule; no record reached the missing-item threshold, the largest number of unanswered core items being four. These rules removed 45 of 1,800 records (2.5%), leaving 1,755.

Sensitivity analyses repeated the two primary models under more and less restrictive screening. Relaxing the cut-offs to 120 seconds and a within-person standard deviation of 0.20 retained 1,783 records; tightening them to 240 seconds and 0.45 retained 1,683; and further tightening them to 300 seconds and 0.50 retained 1,535. Across all four specifications, the coefficient for information overload on decision fatigue ranged from 0.390 to 0.398, the coefficient for choice complexity from 0.183 to 0.197, and the coefficient for decision fatigue on the abandonment rate from 0.078 to 0.079, each significant at $p < .001$. The substantive conclusions are therefore not an artefact of the screening thresholds.

3.5. Missing Data and Score Construction

Item nonresponse was low and dispersed rather than concentrated in a small number of cases. Across the 24 core Likert items completed by all respondents, 1.82% of item cells were missing. Of the retained cases, 64.5% had complete responses on all core items, 35.5% omitted at least one core item, the median number of omitted core items was zero, and no retained respondent omitted more than four core items. Among consultant users, 2.34% of the three consultant-support item cells were missing. Blank consultant-support items for nonusers were treated as structurally inapplicable rather than missing.

Scale scores were calculated as the arithmetic mean of the items answered in each scale. The reverse-worded fatigue item was recoded before averaging. Because item nonresponse was low and no retained respondent omitted more than four of the 24 core items, every retained case received a score on every attitudinal scale, and the regression models therefore used all 1,755 cases. No single-value imputation was used. As a robustness check, all models were re-estimated under a stricter rule requiring

at least 75% of the items in a scale to have been answered: at least three of four items for choice complexity, information overload, and parental involvement; at least five of six items for decision fatigue; and all three items for ranking reliance, delegation, and consultant support. This reduced the analytical N to between 1,639 and 1,734, depending on the model, and left every reported coefficient materially unchanged (for example, choice complexity on decision fatigue moved from 0.183 to 0.185, and decision fatigue on the abandonment rate remained 0.078).

The pattern of missingness was inspected by survey section, consultant-use status, age, study level, and completion time. Item non-response was dispersed across the instrument rather than concentrated in a single item or in a block toward the end of the questionnaire, and no evidence of systematic drop-off was found. Because a cross-sectional design does not permit a formal test of whether data were missing completely at random, the main analyses used available-case estimation, and the limitations section notes multiple imputation and sensitivity analysis as refinements for replication work.

4. Results

4.1. Sample Characteristics and Application Funnel

Respondents initially considered a mean of 11.92 universities (SD = 5.01; median = 11). They seriously researched 7.38 institutions on average, shortlisted 4.52, started 3.82 applications, and submitted 3.17. The mean abandonment rate was 16.8% (SD = 17.6%). The median rate was 16.7%, and 54.2% of respondents abandoned at least one application they had started.

These figures show substantial narrowing before submission. The funnel should not be interpreted as evidence that every removed institution remained genuinely preferred; some attrition is expected and sensible. It does, however, establish that the difference between initial consideration and completed action is large enough to warrant explanation.

Table 1.
Descriptive statistics and internal consistency.

Variable	N	Mean	SD	Median	Range	α
Universities initially considered	1755	11.92	5.01	11.00	4.00–44.00	—
Universities seriously researched	1755	7.38	3.15	7.00	2.00–29.00	—
Universities shortlisted	1755	4.52	2.05	4.00	2.00–18.00	—
Applications started	1755	3.82	1.81	3.00	1.00–16.00	—
Applications submitted	1755	3.17	1.65	3.00	1.00–14.00	—
Applications abandoned	1755	0.65	0.69	1.00	0.00–4.00	—
Application abandonment rate	1755	0.17	0.18	0.17	0.00–0.67	—
Choice complexity	1755	3.38	0.95	3.50	1.00–5.00	0.70
Information overload	1755	3.31	0.94	3.25	1.00–5.00	0.71
Decision fatigue	1755	3.25	0.89	3.33	1.00–5.00	0.75
Parental involvement	1755	3.35	0.93	3.50	1.00–5.00	0.68
Ranking reliance	1755	3.27	0.97	3.33	1.00–5.00	0.58
Decision delegation	1755	3.38	0.98	3.33	1.00–5.00	0.58
Consultant support	868	3.73	0.82	3.67	1.00–5.00	0.41
Age (years)	1755	22.49	3.51	22.00	17.00–41.00	—

Note: N = 1,755 for all variables except consultant support, which was presented only to the 868 respondents who reported using an education consultant. Attitudinal scale scores are item means on a five-point scale. α = Cronbach's alpha; dashes indicate variables for which internal consistency is not applicable.

4.2. Reliability and Correlations

Internal consistency was acceptable for choice complexity ($\alpha = 0.70$), information overload ($\alpha = 0.71$), and decision fatigue ($\alpha = 0.75$). Parental involvement was marginal ($\alpha = 0.68$). Ranking reliance ($\alpha = 0.58$), delegation ($\alpha = 0.58$), and consultant support ($\alpha = 0.41$, $n = 868$) were weak. Results involving the latter constructs should therefore be interpreted as provisional and primarily useful for identifying measurement revisions.

Choice complexity correlated with information overload ($r = 0.40$) and decision fatigue ($r = 0.37$). Information overload showed the strongest bivariate association with decision fatigue ($r = 0.50$). Decision fatigue correlated with application abandonment ($r = 0.45$), ranking reliance ($r = 0.19$), and delegation ($r = 0.23$).

H1 was tested directly in a supplementary model regressing information overload on choice complexity with the same controls. Choice complexity predicted information overload ($b = 0.395$, $SE = 0.021$, $p < .001$), and the model explained 16.2% of the variance (adjusted $R^2 = 0.159$). H1 was supported.

Table 2.

Correlations among principal variables.

Variable	1	2	3	4	5	6	7
1. Choice complexity	—						
2. Information overload	0.40	—					
3. Decision fatigue	0.37	0.50	—				
4. Parental involvement	0.06	0.01	0.03	—			
5. Ranking reliance	0.10	0.11	0.19	0.13	—		
6. Decision delegation	0.11	0.17	0.23	0.25	0.12	—	
7. Abandonment rate	0.22	0.28	0.45	0.04	0.09	0.17	—

Note: $N = 1,755$. Correlations of approximately $|0.05|$ or greater are statistically significant at $p < 0.05$ in this sample; emphasis should remain on effect size rather than significance alone.

4.3. Predicting Decision Fatigue

Choice complexity and information overload both independently predicted decision fatigue. The model explained 28.7% of the variance (adjusted $R^2 = 0.285$). Information overload had the larger coefficient ($b = 0.40$, $SE = 0.02$, $p < 0.001$), followed by choice complexity ($b = 0.18$, $SE = 0.02$, $p < 0.001$). Undergraduate status was associated with higher fatigue ($b = 0.14$, $p = 0.002$). Consultant use had a small negative coefficient ($b = -0.07$, $p = 0.063$). H2a and H2b were supported.

4.4. Predicting Application Abandonment

Decision fatigue predicted a higher application-abandonment rate after complexity, overload, parental involvement, and demographic controls were included ($b = 0.078$, $SE = 0.005$, $p < 0.001$). Interpreted descriptively, a one-point increase on the five-point fatigue scale corresponded to approximately 7.8 percentage points more abandonment, holding other variables constant. Consultant use was associated with a lower abandonment rate ($b = -0.034$, $p < 0.001$). H3 was supported, while the consultant result answers Research Question 1 but does not establish causation. The coefficients for choice complexity and information overload on abandonment fell substantially once fatigue entered the model (from 0.025 to 0.010 and from 0.043 to 0.012, respectively), a pattern consistent with the proposed sequence; this pattern is tested formally as a serial mediation model in Section 4.6, and the cross-sectional design would not support a causal reading of the result.

4.5. Ranking Reliance and Delegation (Secondary Analyses)

Decision fatigue predicted ranking reliance ($b = 0.20$, $p < 0.001$) and delegation ($b = 0.25$, $p < 0.001$). Parental involvement was also associated with ranking reliance ($b = 0.12$, $p < 0.001$) and had a stronger association with delegation ($b = 0.25$, $p < 0.001$). The ranking model explained 5.1% of the variance; the delegation model explained 11.6%. H4, H5, and H6 were supported in these secondary models, although the modest reliability of both outcome scales (Table 1) requires caution, and one delegation item ("When I felt overwhelmed, I preferred a parent, counsellor, or consultant to decide what I should do"; Supplementary Material S1) references feeling overwhelmed directly, so part of the fatigue-delegation association may reflect shared item content rather than a purely empirical relationship. These results are accordingly presented as secondary to the primary fatigue and abandonment-rate models (H1-H3) reported in Sections 4.2-4.4.

Table 3.
Robust regression models.

Predictor	Decision fatigue	Abandonment rate	Ranking reliance	Delegation
Choice complexity	0.183*** (0.020)	0.010* (0.004)	—	—
Information overload	0.398*** (0.021)	0.012* (0.005)	—	—
Decision fatigue	—	0.078*** (0.005)	0.201*** (0.024)	0.247*** (0.025)
Parental involvement	0.009 (0.019)	0.005 (0.004)	0.125*** (0.026)	0.255*** (0.024)
Consultant use	-0.067 (0.036)	-0.034*** (0.007)	0.027 (0.045)	0.055 (0.044)
Age	0.011 (0.007)	0.001 (0.001)	-0.007 (0.009)	-0.005 (0.008)
Undergraduate	0.145** (0.047)	0.005 (0.010)	-0.025 (0.062)	-0.008 (0.060)
Metropolitan residence	0.011 (0.036)	-0.003 (0.007)	-0.005 (0.045)	0.030 (0.044)
R ²	0.287	0.221	0.051	0.116
Adjusted R ²	0.285	0.218	0.048	0.113

Note: N = 1,755 for all four models. Entries are unstandardised coefficients with HC3 robust standard errors in parentheses. Dashes indicate predictors not entered in that model. * p < 0.05. ** p < 0.01. *** p < 0.001. R² and adjusted R² for each model are reported in the final two rows of the table; the non-submission (abandonment) rate model is a linear approximation to a bounded, count-derived outcome (see Section 3.4), so its R² should be read descriptively rather than as a conventional variance-explained statistic.

4.6. Testing the Sequential Model

The preceding models test the links in the proposed sequence separately. A serial mediation model estimated them jointly, with choice complexity predicting information overload, both predicting decision fatigue, and all three predicting the abandonment rate. Every structural path was significant in the expected direction, and all three indirect routes from choice complexity to abandonment had bootstrap confidence intervals excluding zero.

The largest single route ran through fatigue alone (0.014, 95% CI [-0.011, 0.018]), followed closely by the full serial chain through overload and then fatigue (0.012, 95% CI [-0.010, 0.015]). The route through overload without fatigue was much smaller (0.005, 95% CI [-0.001, 0.009]). Taken together, the indirect effects account for 0.031 of the total effect of choice complexity on abandonment (0.042), or 75.5%, leaving a small but significant direct path of 0.010. The corresponding figure for information overload is similar: 71.7% of its total effect on abandonment (0.043) runs through decision fatigue.

The results are consistent with a sequential pattern in which information overload and fatigue statistically account for much of the association between complexity and non-submission, and in which overload's association with non-submission runs mostly through fatigue. Because all variables were measured cross-sectionally, these indirect effects should not be interpreted as evidence of causal mediation; they describe a pattern of statistical association consistent with the proposed sequence, not a demonstrated causal chain. Two further cautions apply. The data are cross-sectional, so the mediator and outcome were measured at the same moment, and the ordering rests on theory rather than on measurement sequence; a longitudinal design is required before these paths can be read causally. The abandonment rate is bounded, so the linear specification remains an approximation.

Table 4.
Serial mediation model predicting the application-abandonment rate.

Path or effect	Estimate	SE / 95% CI
Structural paths		
Choice complexity → information overload	0.395***	(0.021)
Choice complexity → decision fatigue	0.183***	(0.020)
Information overload → decision fatigue	0.398***	(0.021)
Decision fatigue → abandonment rate	0.078***	(0.005)
Choice complexity → abandonment rate (direct)	0.010*	(0.004)
Information overload → abandonment rate (direct)	0.012*	(0.005)
Indirect effects (5,000 bootstrap resamples)		
Complexity → overload → abandonment	0.005	[0.001, 0.009]
Complexity → fatigue → abandonment	0.014	[0.011, 0.018]
Complexity → overload → fatigue → abandonment	0.012	[0.010, 0.015]
Total indirect effect of complexity	0.031	[0.027, 0.037]
Total effect of complexity	0.042	[0.034, 0.050]
Overload → fatigue → abandonment	0.031	[0.027, 0.036]

Note: N = 1,755. Structural paths are unstandardised coefficients with HC3 robust standard errors in parentheses. Indirect effects are reported with 95% confidence intervals from 5,000 bootstrap resamples; an interval excluding zero indicates a significant indirect path. All models control for parental involvement, consultant use, age, study level, and metropolitan residence. * $p < 0.05$. *** $p < 0.001$.

4.7. Measurement Model and Additional Robustness Checks

To formally assess the measurement model underlying the six attitudinal scales described in Section 3.3, the 24 items (choice complexity, information overload, decision fatigue, parental involvement, ranking reliance and decision delegation; consultant support was assessed only among consultant users and is not included here) were examined with a split-sample exploratory and confirmatory factor analysis among the 1,132 respondents with complete responses to all 24 items, randomly divided into a calibration half ($n = 566$) for the exploratory analysis and an independent validation half ($n = 566$) for the confirmatory analysis. Sampling adequacy in the calibration half was excellent ($KMO = 0.84$), and Bartlett's test of sphericity was significant, $\chi^2(276) = 2,721.78$, $p < 0.001$. Six eigenvalues exceeded 1, matching the hypothesized number of factors. A six-factor exploratory solution (maximum-likelihood extraction, promax rotation) recovered the intended structure: every item's largest loading was on its own factor (all ≥ 0.38), with negligible cross-loadings. A confirmatory factor analysis specifying the same six correlated factors, estimated on the independent validation half, fit the data well, $\chi^2(237) = 244.91$, $p = .348$, $CFI = 0.997$, $TLI = 0.996$, $RMSEA = 0.008$, exceeding conventional good-fit thresholds ([59]; Table 5). This measurement model supports treating the six constructs as distinct, correlated latent variables rather than as a single undifferentiated response style, although the modest alpha for ranking reliance, delegation, and consultant support (Table 1) indicates that three-item measurement of these constructs still leaves room for refinement in future work.

Because the abandonment rate is a bounded, count-derived outcome (Section 3.4), the ordinary least squares model reported in Section 4.4 was supplemented with a binomial generalised linear model in which the number of abandoned applications and the number of submitted applications were modelled jointly as trials, with a logit link and a Pearson-based dispersion correction. Decision fatigue remained the strongest predictor (odds ratio = 1.84, $p < 0.001$): each one-point increase in fatigue was associated with 84% higher odds that an individual's started application would be abandoned. Choice complexity ($OR = 1.08$, $p < 0.001$), information overload ($OR = 1.07$, $p < 0.001$), and consultant use ($OR = 0.80$, $p < 0.001$) were significant in the same direction as the linear model. The substantive conclusions in Section 4.4 are therefore not an artefact of the linear specification.

The abandonment-rate model was also re-estimated with a fuller set of demographic controls not included in the primary specification: gender, school background, highest parental education, household-income band, and primary destination. Decision fatigue ($b = 0.078$, $p < 0.001$) and consultant use ($b = -0.028$, $p < 0.001$) remained significant and materially unchanged in size, and model fit improved only

modestly ($R^2 = 0.241$ versus 0.221 in the primary specification). Household income was independently associated with the abandonment rate, with higher-income bands showing lower abandonment relative to the lowest band ($p \leq 0.047$ for three of five contrasts); no other added control reached significance. The focal associations are therefore robust to a considerably fuller control set.

Finally, because the four journey-stage groups described in Section 3.1 (current applicants, offer-holders, current students and recent graduates) were pooled in every model reported above, the sample was tested directly for stage moderation. Interacting survey stage with choice complexity and information overload in the fatigue model did not improve fit, $F(6, 1738) = 0.89$, $p = 0.498$, and interacting stage with decision fatigue in the abandonment-rate model was similarly non-significant, $F(3, 1740) = 1.57$, $p = 0.194$; stage also had no significant main effect on either outcome once the substantive predictors were controlled (all $p > 0.34$). Pooling across stages does not appear to have masked heterogeneity in the associations tested here, although this test cannot rule out differences in unmeasured aspects of the four stages, and graduate reports remain the most retrospectively distant of the four.

Table 5.

Confirmatory factor analysis fit for the six-factor measurement model.

Fit statistic (confirmatory factor analysis, validation half)	Value
N (validation half)	566
χ^2 (df)	244.91 (237)
p	0.348
CFI	0.997
TLI	0.996
RMSEA	0.008
KMO (Calibration half, $n = 566$)	0.84

Note: The calibration-half exploratory factor analysis (six factors, maximum-likelihood extraction, promax rotation) recovered the same structure as the confirmatory model; full item loadings for both halves are reported in Supplementary Table S1.

4.8. Robustness to Current-Applicant Exclusion

Because 29.9% of the sample comprised current applicants surveyed between October and December, ahead of many January deadlines, an unsubmitted application recorded for this group may still have been in progress rather than genuinely abandoned. The abandonment-rate regression, H3, and the serial mediation model were therefore re-estimated after excluding current applicants, leaving 1,230 respondents (offer-holders, current students, and recent graduates) whose application cycle had reached an offer, enrolment, or graduation.

Decision fatigue remained the strongest predictor of the abandonment rate in this subsample ($b = 0.083$, $SE = 0.006$, $p < 0.001$), and consultant use remained associated with a lower abandonment rate ($b = -0.035$, $p < 0.001$); both coefficients were similar to or slightly larger than their full-sample counterparts (Table 3), and model fit was somewhat higher ($R^2 = 0.248$ versus 0.221). The serial mediation model produced a closely comparable pattern (total effect of choice complexity on the abandonment rate = 0.042 , 95% CI $[-0.032, 0.052]$; total indirect effect = 0.035 , 95% CI $[-0.029, 0.041]$), both consistent with the full-sample estimates in Table 4).

The substantive conclusions reported in Sections 4.3, 4.4, and 4.6 therefore do not depend on including current applicants. This robustness check addresses whether the pattern of association changes when the most ambiguous cases are removed, but it cannot fully resolve the underlying conceptual concern: for the current applicants who remain in the primary analyses, “not yet submitted” and “abandoned” cannot be distinguished with the present measure, and this is acknowledged as a limitation of the abandonment-rate construct in Section 5.3.

5. Discussion

The results support a process account of application attrition. Applicants who experienced the choice environment as difficult also reported more information overload, and both constructs

independently predicted fatigue. Fatigue was then associated with a measurable behavioural consequence: a greater proportion of applications already started but not submitted. This pattern is consistent with research showing that complex trade-offs can produce deferral or non-choice [29, 30] but extends that logic to a consequential educational process unfolding over weeks or months.

The central contribution is conceptual. University-choice studies ordinarily treat the final list or enrolment decision as the outcome to be explained. The present findings suggest that the final portfolio may also encode endurance. A submitted application has survived informational, administrative, and emotional demands that an application the respondent reported as not submitted did. The absence of an application from the final set cannot automatically be read as an absence of preference.

Information overload was a stronger predictor of fatigue than choice complexity. This distinction matters. Institutions and advisers cannot eliminate the fact that applicants have many options, but they can influence how information is structured. An applicant comparing several institutions through a consistent template may face less overload than one navigating fewer institutions through incompatible websites, scattered policies, and changing advice. This supports the contingency view of choice overload advanced by Chernev et al. [28]: difficulties arise from the interaction between the choice set, the task, and the decision-maker rather than from option count alone.

Decision fatigue also predicted ranking reliance. Rankings can be useful search tools, and the finding should not be interpreted as evidence that consulting a ranking is inherently poor judgment. The concern is substitution. When fatigue is high, an ordinal position may replace rather than complement programme-level evaluation. The choice becomes easier to defend socially, 'it was the highest-ranked option', even when the ranking methodology does not reflect the student's priorities. This mechanism may help explain why ranking influence persists despite widespread awareness of methodological limitations [47, 48].

The delegation findings similarly require nuance. Parental involvement was associated with delegation, but involvement can include both productive support and loss of student ownership. International applications are often family decisions because families bear financial and emotional risk. The question is not whether parents should participate. It is whether participation reduces unnecessary burden while preserving the student's substantive voice. Future measurement should distinguish administrative assistance, advice, veto power, and final decision authority.

Consultant use was associated with lower abandonment and showed a small negative relationship with fatigue that did not reach conventional significance ($b = -0.07$, $p = 0.063$). One plausible interpretation is that consultants provide structure, deadline management, and information filtering. Another is selection: families who hire consultants differ in resources, ambition, preparedness, and application strategy. Consultant use was measured only as a binary indicator, so no causal claim is justified. A stronger study should capture specific functions, intensity of engagement, fee model, and the point in the process at which support began.

The comparatively weak reliability of ranking reliance, delegation, and consultant support is not a minor technical issue. It suggests that each label currently combines behaviours that respondents may distinguish. Rankings can be used for discovery, reassurance, comparison, or final choice. Delegation can concern paperwork or authority. Consultant support can involve information, strategy, execution, or emotional containment. Refining these constructs would deepen the paper rather than simply improve coefficients.

5.1. Theoretical Implications

The model connects three literatures that are often separated: higher education choice, behavioural decision research, and student demands. College-choice models explain stages and influences; choice research explains how task structure changes strategy; demands-resources theory explains why sustained requirements can generate strain. Together, they suggest that educational choice is partly governed by the architecture of the process.

The findings also encourage a move away from a purely preference-based account of mobility. Recent international-student research recognises that country, institution, programme, place and social actors interact [5, 12, 13, 22]. Application attrition adds time and cognitive burden to that ecology. The option ultimately pursued is not simply the option most valued; it may be the option that remained feasible under the applicant's evolving resource constraints.

The non-submission finding also connects to a literature on administrative burden and application friction that has developed largely outside higher-education-choice research. Work on the 'summer melt' phenomenon shows that college-intending students who have already been admitted can still fail to enrol because of unresolved procedural tasks, and that low-cost outreach reducing that friction measurably increases enrolment [60]. Similarly, simplifying the financial-aid application process, without changing eligibility or aid amounts, substantially increased both application completion and subsequent enrolment in the H&R Block FAFSA experiment Bettinger et al. [61]. Herd and Moynihan [62] concept of administrative burden further distinguishes learning, compliance, and psychological costs that accumulate as a task is completed, independent of an applicant's underlying motivation. Read alongside this literature, the present findings suggest that decision fatigue may operate as one source of psychological and compliance cost within the international-application process, adding to rather than replacing the administrative-burden mechanisms already documented in domestic higher-education and public-benefits settings.

5.2. Practical Implications

Schools, universities and advisers should not equate more information with better guidance. Applicants need comparability: consistent programme summaries, transparent total-cost estimates, clear document checklists and staged deadlines. A decision dashboard that requires applicants to compare the same limited set of attributes may be more useful than another large database, and reviews of student support services emphasise structured, developmental support and student engagement. Higher-education marketing research points the same way: recent systematic-review evidence highlights the co-creation of services and processes with students [63].

Application planning should treat abandonment as a diagnostic signal. Beginning many applications but completing few may indicate an unrealistically wide portfolio, unresolved financial uncertainty, or an avoidable concentration of work near deadlines. Early triage can identify which applications are essential, which are contingent, and which should be removed before significant effort is invested.

Families can reduce overload by clarifying constraints early. Financial ceilings, geographic restrictions, and non-negotiable academic requirements are easier to apply before fatigue develops. Reopening settled options late in the cycle may increase burden without materially improving choice. For less-resourced families, such process burdens can compound existing inequities; more broadly, higher-education inclusion policy emphasizes the removal of non-financial as well as financial barriers for under-represented groups [64].

Consultants and counsellors should distinguish expansion from curation. Adding universities can create opportunities, but each additional option carries comparison and execution costs. The professional value of advising may lie as much in eliminating unsuitable options and sequencing work as in identifying new institutions.

5.3. Limitations and Future Research

The study is cross-sectional and relies on retrospective self-report. Fatigue may shape recollection, and respondents who abandoned applications may reconstruct the process as more exhausting. A prospective design would measure complexity, overload, and fatigue before major deadlines, then collect verified submission outcomes afterwards.

The sample is heterogeneous but not probability-based. Recruitment through schools, counselling networks and online channels may over-represent urban and highly engaged applicants. Statistical adjustment cannot fully correct selection into the sample. Replication across countries, socioeconomic

groups and recruitment channels is needed. Item non-response, although low, was handled by available-case estimation; multiple imputation with an explicit sensitivity analysis would be a stronger treatment in replication work. The four journey stages (current applicants, offer-holders, current students and recent graduates) were pooled in the primary regression models; a formal interaction test reported in Section 4.7 did not find significant stage moderation of the focal associations, although recall for graduates in particular spans a longer and more variable retrospective window than recall for current applicants, and this difference in recall quality cannot be ruled out by a null interaction test. Because an unsubmitted application may still be pending rather than abandoned for respondents who were still applying at the time of the survey, Section 4.8 re-estimates the primary models after excluding current applicants.

The abandonment outcome requires further refinement. Some non-submission is rational because applicants become ineligible, receive an early offer, decide against the cost, or deliberately reduce their list. Future surveys should ask about each abandoned application and classify the principal reason. Fatigue should predict abandonment attributed to postponement, effort, or deadline failure more strongly than abandonment caused by changed eligibility. The survey did not include a structured item asking respondents to classify why a specific application was abandoned, so this reclassification could not be carried out with the present data; a small, self-selected subset of respondents who abandoned at least one application volunteered an open-ended comment (141 of 952, 14.8%), and these illustrate the plausible heterogeneity, administrative friction, cost changes, parental renegotiation of the list, and simple recall failure are all represented, without providing a systematic basis for reclassifying the outcome.

The confirmatory factor analysis reported in Section 4.7 supports the six-factor structure, but the three-item ranking-reliance, delegation, and consultant-support scales still have modest internal consistency (Table 1) and would benefit from additional items and cognitive interviews before further fielding. Coefficient omega alongside alpha and formal measurement invariance testing across undergraduate and postgraduate applicants, consultant users and non-users, and major destination groups remain open for future work.

Finally, stronger causal designs are possible. A randomised intervention could compare ordinary advising with structured choice architecture: fixed comparison templates, staged deadlines, and limits on the number of simultaneously active applications. If the intervention reduces fatigue and improves completion without reducing satisfaction, the practical significance would be substantial.

6. Conclusion

International higher education choice is not only a matter of identifying the most attractive institution. It is also a test of whether applicants can continue comparing, deciding, and completing tasks across a prolonged and uncertain process. The present study shows that perceived complexity and information overload are associated with decision fatigue, and that fatigue is associated with application abandonment, ranking-based simplification, and delegation.

Treating the final application list as a transparent expression of preference overlooks the options lost to process burden. A more complete account of university choice must therefore examine not only where students apply and enrol, but which plausible choices disappear, when they disappear, and why.

Institutional Review Board Statement:

The study protocol was approved by the Zigma Six Ethics Review Board, Mumbai, India (approval number SS/2025/192-12, granted 14 September 2025), prior to data collection. All participants provided informed consent.

Transparency:

The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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Supplementary Material S1

Too Many Choices, Too Few Applications: Decision Fatigue and Application Abandonment in International Higher Education Choice

This file accompanies the main manuscript submitted to Edelweiss Applied Science and Technology. It contains (1) the full item-level exploratory factor analysis loadings underlying the split-sample measurement model reported in Section 4.7 and Table 5 of the manuscript, and (2) the complete survey questionnaire administered to respondents.

Table S1a.

Exploratory factor analysis loadings, calibration half (n = 566).

Item	CC	IO	DF	PI	RR	DG
CC1	0.67	-0.03	-0.03	-0.00	-0.05	0.07
CC2	0.54	0.12	-0.01	0.09	0.03	-0.11
CC3	0.66	0.01	0.04	-0.04	-0.02	-0.01
CC4	0.55	-0.00	0.02	0.01	0.03	0.05
IO1	-0.01	0.71	-0.02	-0.02	0.01	0.07
IO2	0.08	0.49	0.10	-0.03	-0.02	0.00
IO3	0.04	0.63	-0.02	-0.01	0.03	0.04
IO4	0.01	0.48	0.09	0.01	-0.03	-0.05
DF1	0.09	0.02	0.63	0.02	0.02	-0.01
DF2	0.12	-0.04	0.66	-0.02	0.02	-0.03
DF3	-0.01	-0.08	0.69	-0.01	0.09	0.05
DF4	0.04	-0.01	0.57	-0.05	-0.04	0.04
DF5	-0.13	0.14	0.46	0.07	-0.02	-0.03
DF6_R_rev	-0.01	0.03	0.38	-0.03	-0.01	-0.01
PI1	-0.05	0.01	-0.01	0.63	-0.07	0.07
PI2	-0.02	0.07	-0.06	0.56	0.04	0.08
PI3	0.02	0.05	-0.03	0.62	0.03	-0.12
PI4	0.07	-0.15	0.07	0.50	0.00	0.02
RR1	0.06	-0.00	-0.00	-0.04	0.57	0.05
RR2	-0.04	-0.10	0.07	0.02	0.58	-0.04
RR3	-0.04	0.09	-0.04	0.03	0.55	0.00
DG1	-0.05	-0.01	0.14	0.07	-0.06	0.50
DG2	0.05	-0.03	-0.09	-0.02	0.00	0.66
DG3	0.00	0.08	-0.02	-0.02	0.05	0.46

Note: Maximum-likelihood extraction, promax rotation. Loadings $\geq .40$ on the intended construct in bold-equivalent (rendered as plain text here); values shown are pattern-matrix loadings. DF6_R_rev = reverse-worded decision-fatigue item, reverse-scored prior to analysis.

Table S1b.

Confirmatory-model exploratory check, validation half (n = 566).

Item	CC	IO	DF	PI	RR	DG
CC1	0.54	0.06	0.03	-0.02	-0.03	0.03
CC2	0.67	-0.01	-0.00	0.08	-0.00	0.01
CC3	0.53	0.03	0.01	-0.11	0.02	0.01
CC4	0.56	-0.03	-0.00	0.05	-0.00	-0.05
IO1	0.02	0.62	0.05	0.01	0.04	-0.06
IO2	0.01	0.64	0.03	-0.09	-0.07	0.11
IO3	-0.02	0.61	0.00	0.01	-0.00	0.04
IO4	0.04	0.50	0.06	0.05	0.01	-0.10
DF1	0.07	-0.16	0.73	-0.02	0.05	-0.01
DF2	-0.03	0.11	0.55	0.06	-0.08	0.12
DF3	0.00	0.08	0.56	-0.01	0.04	0.01
DF4	-0.02	0.12	0.41	-0.02	0.02	0.00
DF5	-0.04	0.02	0.56	0.08	0.01	-0.12
DF6_R_rev	0.03	-0.01	0.39	-0.05	0.01	0.07
PI1	-0.04	-0.06	0.14	0.70	-0.09	0.02
PI2	0.09	-0.00	-0.09	0.58	0.03	0.05

PI3	-0.01	-0.02	0.08	0.63	-0.06	-0.04
PI4	-0.02	0.07	-0.10	0.43	0.12	0.04
RR1	-0.04	0.15	-0.03	-0.03	0.55	0.00
RR2	0.01	-0.05	0.04	0.07	0.49	-0.04
RR3	0.01	-0.09	0.05	-0.07	0.59	0.05
DG1	-0.01	0.04	-0.01	0.04	-0.00	0.51
DG2	0.03	-0.01	-0.04	0.04	0.02	0.55
DG3	-0.04	-0.04	0.06	-0.01	-0.00	0.57

Note: Shown for transparency alongside the confirmatory factor analysis (also estimated on this validation half) reported in Table 5 of the manuscript; the exploratory loadings on the validation half corroborate the same six-factor structure recovered in the calibration half.

Complete Survey Questionnaire

The following instrument is the complete questionnaire represented in the dataset. Unless otherwise stated, items use a five-point scale: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree.

A1. Eligibility and application stage

Are you aged 17 years or older? (Yes / No)

Have you seriously considered, started or completed an application to a university outside your home country? (Yes / No)

Which best describes your current stage? (Current applicant / Offer-holder / Current international student / Recent graduate)

What level are or were you applying for? (Undergraduate / Postgraduate)

A2. Background information

Age in completed years

Gender (Woman / Man / Non-binary or another identity / Prefer not to say)

Home location (Metro / Tier 1 non-metro / Tier 2 or Tier 3 city or town)

School or prior educational background (International curriculum / Private national curriculum / Government or aided / Other)

Highest level of education completed by either parent or guardian (Below bachelor's / Bachelor's / Master's or professional qualification / Doctorate)

Approximate annual household income (Under ₹10 lakh / ₹10–25 lakh / ₹25–50 lakh / ₹50 lakh–₹1 crore / Above ₹1 crore / Prefer not to say)

Did you use a paid or institution-linked education consultant during the application process? (Yes / No)

Primary intended or actual destination (United States / United Kingdom / Canada / Australia / Continental Europe / Singapore or Hong Kong / Multiple or undecided)

A3. Application funnel

How many universities did you initially consider?

How many did you research seriously?

How many did you place on a shortlist?

How many applications did you start?

How many applications did you submit?

A4. Choice complexity (CC)

CC1. I found it difficult to compare universities because each option had different strengths.

CC2. There were too many relevant factors to consider at the same time.

CC3. The universities or programmes I considered were difficult to compare on a common basis.

CC4. Even after researching my options, I was unsure how to organise them into a clear order of preference.

A5. Information overload (IO)

IO1. The amount of information available about universities felt overwhelming.

IO2. I received more information than I could evaluate properly.

IO3. Information from different sources was often difficult to reconcile.

IO4. Searching for more information sometimes made the decision less clear rather than clearer.

A6. Decision fatigue (DF)

DF1. I became mentally tired from repeatedly comparing universities and programmes.

DF2. As the process continued, I found it harder to concentrate on application decisions.

DF3. I postponed some application decisions because I no longer wanted to think about them.

DF4. Near deadlines, I wanted to simplify the process even if that meant considering fewer factors.

DF5. I felt less able to make careful decisions at the end of the application process than at the beginning.

DF6-R. Even late in the process, I felt mentally fresh when making application decisions. (Reverse scored)

A7. Parental involvement (PI)

PI1. My parent or guardian was closely involved in deciding where I should apply.

PI2. My parent or guardian regularly reviewed or discussed my university options with me.

PI3. My parent or guardian influenced which universities remained on my final list.

PI4. Financial or family considerations gave my parent or guardian substantial influence over my application decisions.

A8. Ranking reliance (RR)

RR1. University rankings helped me simplify difficult comparisons.

RR2. When I was uncertain, I tended to favour the more highly ranked university.

RR3. Ranking position played an important part in deciding which applications to complete.

A9. Decision delegation (DG)

DG1. I allowed another person to narrow my university list substantially.

DG2. At least one important application decision was effectively made for me by someone else.

DG3. When I felt overwhelmed, I preferred a parent, counsellor or consultant to decide what I should do.

A10. Consultant support (CS; consultant users only)

CS1. My consultant helped me organise information and compare options.

CS2. My consultant helped me manage deadlines and application tasks.

CS3. My consultant reduced the mental burden of the application process.

A11. Optional comment

Is there anything else you would like to say about how your application list changed, why you stopped any application, or who influenced the final decision? (Open text).