

## **Exploring Push-Pull Factors and AI Influence on Indian Students' Higher Education Choices Abroad: A Predictive Analytic Approach**

Gnana Durgadevi K<sup>1</sup>, Dr.U.Vani <sup>2</sup>

<sup>1</sup> *Research Scholar, Department of Commerce, PSG College of Arts & Science, Coimbatore, Tamil Nadu, India*

<sup>2</sup> *Assistant Professor, Department of Commerce, PSG College of Arts & Science, Coimbatore, Tamil Nadu, India.*

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#### **Corresponding Author:**

*Gnana Durgadevi K*

### **Abstract:**

Outbound mobility of Indian students has increased rapidly, driven by expanding demand for programs in STEM, business programs, medicine and other professional fields. Students are attracted by superior academic infrastructure, research opportunities and employment prospects in host countries. This study examines the extent to which push-pull factors, combined with AI-driven tools and platforms, influence students' decisions and their resulting satisfaction and advocacy behaviour. The findings reveal that rising challenges in the home country significantly reduce satisfaction with overseas education choices. Notably, AI trust demonstrates a strong positive effect on students' advocacy behaviour, indicating that students who trust AI enabled systems are more likely to recommend international education to peers. This study integrates the push-pull migration theory with the Technology Acceptance Model [TAM], offering a digitally enhanced framework for understanding contemporary student mobility.

**Keywords:** AI Trust, AI Exposure, Push-Pull factor, Student Mobility, Advocacy, TAM.

### **1. Introduction**

The outbound mobility of Indian students has reached nearly 1.3 million, marking a rapid rise across fields such as STEM, business, and emerging professional disciplines. Students increasingly prefer destinations such as Canada, the UK, Australia and Germany, with notable growth in Ireland, France and Italy [1]. Favourable post-study work rights, immigration policies, globalized academic environments and the perceived superiority of foreign educational infrastructure influence this mobility. Parallel to this trend, artificial intelligence (AI) is reshaping higher education through automated grading, intelligent tutoring systems and predictive analytics. AI-enabled systems enable institutions to analyse student needs, automate admissions, and provide continuous, personalized support through chat-bots and recommendation engines [2]. These technological advancements underscore a shift in the functioning of higher education institutions as competitive service providers, while students are increasingly behaving as value-seeking consumers. The classical push-pull migration theory explains student mobility through home-country pressures (push) and host-country attractions (pull). However, in the digital era, AI-driven systems exert additional influence during student decision-making [3]. Tools such as automated counselling, program matching algorithms, and document-processing systems have become integral to the study-abroad process. Integrating these technological factors with migration theory fills a crucial gap in understanding modern student behaviour. Given this context, the present study investigates how push-pull factors interact with AI exposure and AI trust to influence satisfaction and advocacy among Indian students pursuing global education.

## **1.1 Objectives**

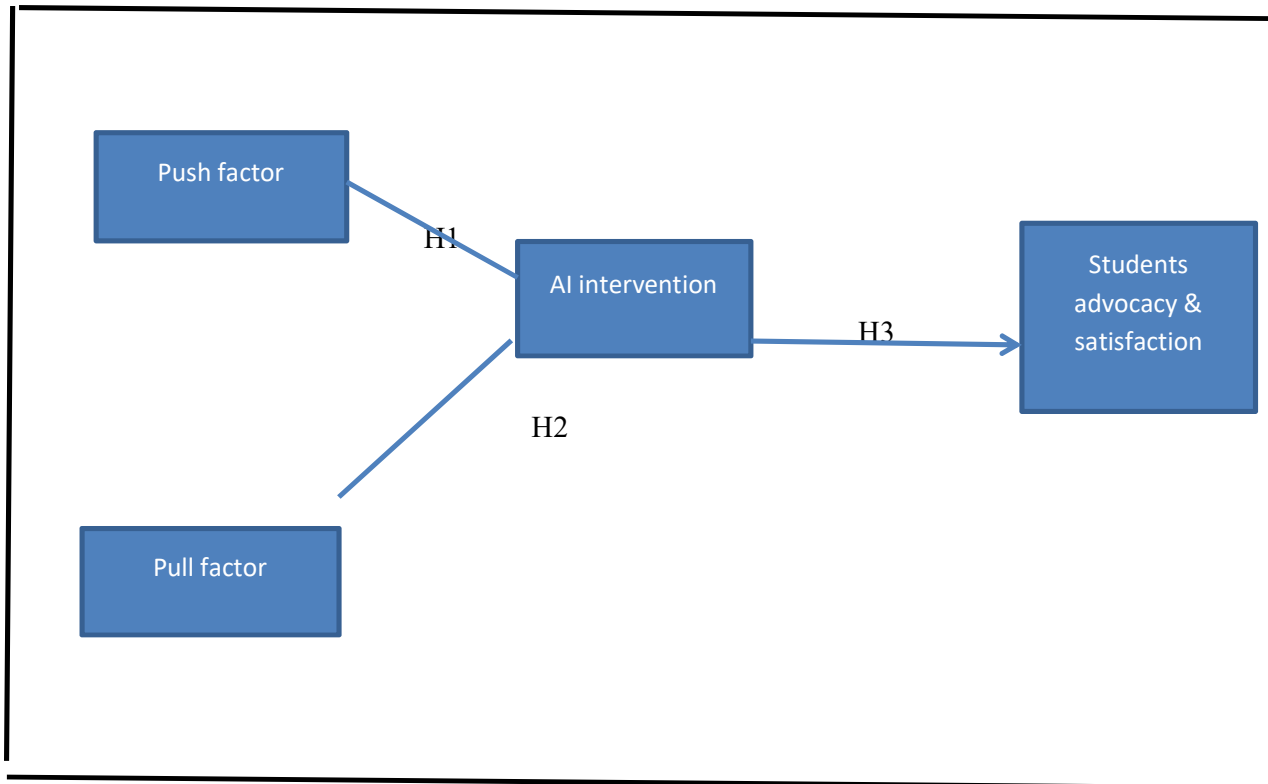
- To analyse how push-pull factors influence students' decisions to pursue overseas education.
- To examine how AI exposure and AI trust intersect with push-pull factors in predicting student satisfaction and advocacy.

## **1.2 Significance of the study**

This paper provides critical insights into the evolving landscape of Indian student mobility in the digital era. Previous research on international student mobility has mostly examined economic, academic, and sociocultural push-pull factors. However, the rapid integration of artificial intelligence within the global higher education ecosystem has made student decision-making increasingly technology-driven. This study addresses a significant research gap. It integrates classical push-pull migration theory with the Technology Acceptance Model (TAM) to offer a digitally informed perspective on international student mobility. The study highlights how AI-enabled counselling, recommendation engines, and automated processes influence international student satisfaction and advocacy. The findings offer actionable recommendations for governments and educational institutions to strengthen domestic higher education, enhance international collaborations, and mitigate negative push factors. Universities and Ed-tech platforms must prioritize transparent, reliable, and student-focused AI systems to improve user experience and encourage positive word-of-mouth among international applicants. These insights support stakeholders such as international education counselor, recruitment agencies, policymakers, and higher education institutions in understanding international student motivations within a digital-first context. In sum, this study advances theory and practice by presenting a contemporary framework. It captures the increasing role of AI in shaping international student mobility, satisfaction, and advocacy.

## **2. Literature review**

Push-pull dynamics have long been identified as primary explanations of student mobility. Students leave due to constraints at home and are drawn abroad because of academic, economic or sociocultural advantages [4]. Family influence, peer suggestions and counsellor recommendations further shape destination choice. With advancements in AI, the international study ecosystem has undergone a significant transformation. AI systems, ranging from recommendation engines to automated document screening, simplify application processes and enable students to make informed decisions [5]. AI also aids in language preparation, academic assessment and visa documentation, thereby influencing student confidence and satisfaction [6]. Existing literature heavily focuses on mobility determinants but reveals a gap regarding the role of AI trust and exposure in shaping advocacy behaviour. This study attempts to bridge this gap by integrating migration theory with the Technology Acceptance Model. TAM's constructs, perceived usefulness and ease of use align with AI trust and AI exposure, thereby enabling a digital interpretation of student decision-making processes.



**Fig. 1.** The figure shows the conceptual framework model the impact of push and pull factors with AI intervention on student decision.

## 2.1 Hypothesis Development

H1: Push factor has a significant positive effect on students' use of AI tools during their decision-making process.

H2: Pull factors have a significant positive effect on students' use of AI tools during their decision-making process.

H3: AI intervention significantly mediates the relationship between push factors and student advocacy and satisfaction.

## 3. Research Methodology

This study employs a quantitative research design, utilizing predictive analysis to investigate the impact of push-pull factors and AI intervention on Indian students' overseas education. Data has been collected through a structured questionnaire among Indian students pursuing higher education abroad. Variables included independent variables such as push factors, pull factors, AI exposure, and dependent variables (satisfaction and advocacy), as well as the mediating construct (AI trust). Classical push-pull migration theory and TAM form the theoretical grounding. Therefore, Pearson correlation was used to examine relationships, followed by stepwise multiple regression to identify key predictors of advocacy.

#### 4. Data analysis and interpretation

**Table 1.** Table shows the relationship between Satisfaction level and Push factor, Pull factor, AI exposure & AI Trust

Level of Satisfaction					
Push factor	Pearson Correlation	-0.198			
	Single (2-tailed)	0.048			
Pull factor	Pearson Correlation		-0.105		
	Single (2-tailed)		0.297		
AI Exposure	Pearson Correlation			-0.093	
	Single (2-tailed)			0.078	
AI Trust	Pearson Correlation				0.356
	Single (2-tailed)				0.443

#### Interpretation

The above table1 shows that the push factor has a negative impact on satisfaction ( $r=-0.198$ ,  $p<0.05$ ) reveals that increases in the challenges at home country decreases the satisfaction in study abroad choices. Further, pull factor, AI exposure, AI trust hasn't significantly correlated due to emerging influences such as AI and international exposure are still in the early stage.

**Table 2.** Table shows the Stepwise Regression analysis for the Advocacy

	Coefficients		Standardized coefficient	t-value	S/NS
	Unstandardized Coefficients				
	B	Std. Error	Beta		
Constant	3.045	0.254		11.994	S
Trust	0.269	0.138	0.100	1.954	S

Exposure	0.575	0.307	0.079	1.872	NS
	<b>R-Value</b>	<b>R Square</b>	<b>F</b>	<b>Sig.</b>	
	0.673	0.453	35.906	S	

### Interpretation

The table 2 depicts Multiple correlation coefficients and stepwise inclusion of variables in the regression equation. The multiple correlation coefficient R given above shows the strong connection between the dependent variables & the pairs of independent variables included in the equation. The R-value highlights that a strong positive linear relationship (0.88) exists between the dependent variable and the set of independent variables (predictors). The R Square values are shown as 0.453, which indicates that 45.3% of the variation in the dependent variables is revealed by the set of all the independent variables included. The significance of the multiple correlation coefficient is tested with the help of F-Statistic. The F-value is found to be 35.906 which shows that the multiple correlation is significant at 5% level.

From the regression table, it is seen that 1 predictor trust has a significant effect on advocacy at a 5% level. Trust AI seems significantly affecting the advocacy as the regression coefficient is significant and exposure of AI not significantly affecting the advocacy ( $t=1.872$ ,  $p>0.05$ ).

### 5. Results

The study indicates that the push factor has a negative influence on student satisfaction ( $r = -0.198$ ,  $p < 0.05$ ). It highlights that as difficulties in the home country rise, satisfaction with study abroad choices decreases. Pull factors, as well as AI exposure, showed minimal correlation with satisfaction. Hence, the study recommends that emerging influences, such as AI and international exposure, are still in their early stages of impact on student decision-making. Furthermore, AI trust ( $\beta = 0.269$ ,  $t = 1.964$ ,  $p < 0.05$ ) significantly predicts advocacy, indicating that students who rely on AI tools during their decision-making process are more likely to recommend international education.

### 6. Suggestions & Conclusion

Student mobility is increasing, driven by environmental, economic, and technological factors. AI-driven tools streamline admission processes, provide continuous support and enhance decision accuracy. Universities integrating a trustworthy AI system can shape students' experience and advocacy behaviour. Further study recommends to

- Reduce negative push factors in India by improving research, funding and institutional capacity.
- Strengthen pull factors through international collaborations and improved educational quality.
- Enhance AI systems to ensure transparency, security and student-friendly interfaces.
- Use predictive analytics to identify potential applicant groups and customise support.

This study integrates classical push-pull theory with TAM, offering a digitally enhanced model of student mobility. AI's influence on satisfaction and advocacy is expected to increase as digital adoption expands.

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