Exploring the Interplay between Socio-Economic Factors, Cultural Adaptation, and International Student Mobility: A Multilevel Analysis of Push-Pull Factors

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Abstract:

➢ *Purpose*

This study investigates the interplay between socio-economic factors, cultural adaptation, and international student mobility, focusing on push-pull factors driving students from Kerala, India, to pursue higher education abroad. The research employs a multilevel analysis to explore how socio-economic status (SES) and cultural adaptation interact to shape migration decisions and experiences in host countries such as the USA, Canada, Australia, and China.

➢ *Design/Methodology/Approach*

Data were collected from 414 Keralite students studying abroad using a non-probability snowball sampling method. Structural Equation Modelling (SEM) was employed to examine the direct and moderating effects of SES and cultural adaptation on student mobility, incorporating push-pull factors at individual, institutional, and societal levels.

➢ *Findings*

The results reveal a significant association between SES and student mobility ($\beta=0.31$, $p<0.05$), with cultural adaptation acting as a partial moderator ($\beta=0.39$, $p<0.05$). Push factors, such as limited infrastructure in Kerala, and pull factors, such as quality education and career opportunities abroad, significantly influence migration intentions. Cultural adaptation mitigates challenges but does not fully offset SES disparities.

➢ *Originality/Value*

Originality/Value: This study contributes to the literature by integrating push-pull theory with a multilevel analysis, offering novel insights into the dynamic interplay of socio-economic and cultural factors in international student mobility from a developing region like Kerala.

Keywords: Socio-Economic Status, Cultural Adaptation, International Student Mobility, Push-Pull Factors, Multilevel Analysis.

I. INTRODUCTION

International student mobility has surged globally, with India contributing significantly to this trend. In 2012, approximately 4 million Indian students studied abroad, a figure projected to exceed 7.5 million by 2025, reflecting a 68% increase (Ministry of Education, India). Kerala, a state known for its high literacy and educational aspirations, is a key contributor to this outflow, driven by push factors such as inadequate infrastructure and pull factors like superior educational and career opportunities in countries like the USA, Canada, Australia, and China. This study explores the interplay

between socio-economic status (SES), cultural adaptation, and international student mobility through a multilevel analysis of push-pull factors. Socio-economic status, encompassing income, education, and social standing, shapes students' ability to access international education, while cultural adaptation influences their integration and success in host countries. Push-pull theory provides a framework to understand migration decisions, where push factors (e.g., lack of opportunities at home) and pull factors (e.g., quality education abroad) interact with individual and contextual variables. This research examines how SES and cultural adaptation moderate these dynamics, addressing gaps in understanding how multilevel factors influence student mobility from developing regions.

➤ Objectives

The objectives of this study are:
- To assess the direct impact of SES on international student mobility.
- To evaluate the role of cultural adaptation as a moderator in the relationship between SES and student
- mobility.
- To analyze push-pull factors at individual, institutional, and societal levels influencing Keralite students' migration decisions.

II. LITERATURE REVIEW

➤ Socio-Economic Status and International Student Mobility

Socio-economic status is a critical determinant of international student mobility. High SES enables access to financial resources, educational loans, and pre-departure preparation, facilitating migration (Elizabeth H. Baker, 2021). Conversely, lower SES students face barriers such as financial constraints, yet many overcome these through loans or scholarships (Dr. Vishal P. Deshmukh & Mrs. Sankpal S.V, 2022). Studies highlight that SES influences not only the decision to migrate but also academic and career outcomes abroad (Nonoyama-Tarumi, 2008). Push factors, such as limited higher education infrastructure in Kerala, and pull factors, like prestigious institutions abroad, amplify SES-driven mobility (Metka Hercog & Mindel van de Laar, 2017). Cultural Adaptation and Student Mobility. Cultural adaptation, defined as the socio-cultural and psychological adjustments to a new cultural environment (Berry, 1992), significantly affects international students' experiences. Students from culturally proximate backgrounds adapt more easily, enhancing their migration intentions and success (Chan Y W, 2023). Conversely, cultural distance can pose challenges, necessitating support systems like language programs and intercultural activities (Nayir et al., 2021). Resilience and supportive relationships are critical for adaptation, particularly for Indian students in Western academic settings (Mukthyala, 2013). Push-Pull Factors in International Student Mobility Push-pull theory explains migration as a result of factors pushing individuals from their home country and pulling them toward host countries. In Kerala, push factors include inadequate

infrastructure and limited job prospects, as noted by the Kerala High Court. Pull factors include high-quality education, global career opportunities, and diaspora networks in host countries (Sulaiman KM & R B Bhagat, 2021). The interplay of SES and cultural adaptation within this framework remains underexplored, particularly in the context of Kerala's student migration.

➤ Hypotheses

Based on the literature, the following hypotheses are proposed:
- H1: SES has a significant direct impact on international student mobility.
- H2: SES influences student mobility through the moderating effect of cultural adaptation.
- H3: Cultural adaptation has a significant direct impact on student mobility.
- H4: The interaction of SES and cultural adaptation significantly affects student mobility.
- H5: There is a significant relationship between SES and cultural adaptation.

III. METHODOLOGY, DESIGN AND APPROACH

This study adopts a quantitative approach, utilizing Structural Equation Modelling (SEM) to analyze the interplay of SES, cultural adaptation, and student mobility. A multilevel perspective incorporates push-pull factors at individual (e.g., SES), institutional (e.g., university support), and societal (e.g., infrastructure) levels. Data were collected from 414 Keralite students studying in the USA, Canada, Australia, and China, selected via non-probability snowball sampling.

➤ Pilot Study

A pilot study with 150 respondents (100 undergraduates, 50 graduates) was conducted to validate measurement scales. Feedback led to minor questionnaire revisions to ensure clarity and reliability. The pilot confirmed the suitability of constructs for SES, cultural adaptation, and student mobility.

➤ Data Collection and Sampling

Data were gathered through Google Forms, with 800 questionnaires distributed to Keralite students intending to study abroad. Of the 517 responses received (64.6% response rate), 414 were deemed valid after excluding 103 incomplete responses. The sample comprised 223 males (54.8%) and 191 females (46.13%), with migration intentions distributed as follows: USA (23.18%), Canada (29.9%), Australia (28.2%), and China (18.5%).

➤ Measurements

• Socio-Economic Status (SES):

Measured using a 5-point Likert scale (1 = strongly negative, 5 = strongly positive), with self-reported data on income, education, and social standing. Reliability was high

(Cronbach's Alpha = 0.901), with skewness and kurtosis within ±1.96, confirming normality.

- *Cultural Adaptation (CA):*
Assessed via a 5-point Likert scale (1 = highly disadaptive, 5 = highly adaptive), with self-reported data on socio-cultural and psychological adjustments. Reliability was robust (Cronbach's Alpha = 0.816), with normality confirmed.

- *Student Mobility (SM):*
Measured using a 5-point Likert scale (1 = highly disagree, 5 = highly agree), capturing migration intentions and experiences. Reliability was acceptable (Cronbach's Alpha = 0.711), with normality confirmed.

Table 1 Convergent Validity

Constructs	λ	λ2	1-λ2	CR	AVE	Square root of AVE
SES1	0.86	0.7396	0.2604			
SES2	0.89	0.7921	0.2079			
SES3	0.75	0.5625	0.4375			
SES4	0.91	0.8281	0.1719			
SES5	0.88	0.7744	0.2256			
SES6	0.83	0.6889	0.3111			
SES7	0.78	0.6084	0.3916			
SES8	0.73	0.5329	0.4671			
SES9	0.79	0.6241	0.3759	0.95	0.68	0.82
CA1	0.93	0.8649	0.1351			
CA2	0.89	0.7921	0.2079			
CA3	0.71	0.5041	0.4959			
CA4	0.88	0.7744	0.2256			
CA5	0.86	0.7396	0.2604			
CA6	0.79	0.6241	0.3759			
CA7	0.76	0.5776	0.4224			
CA8	0.73	0.5329	0.4671			
CA9	0.91	0.8281	0.1719			
CA10	0.89	0.7921	0.2079			
CA11	0.84	0.7056	0.2944	0.96	0.703	0.84
SM1	0.83	0.6889	0.3111			
SM2	0.78	0.6084	0.3916			
SM3	0.79	0.6241	0.3759			
SM4	0.88	0.7744	0.2256			
SM5	0.83	0.6889	0.3111			
SM6	0.81	0.6561	0.3439			
SM7	0.86	0.7396	0.2604			
SM8	0.78	0.6084	0.3916	0.94	0.673	0.82

Table 2 Constructs Reliability and Validity

Variables	CA	CR	AVE
SES	0.901	0.95	0.68
CA	0.816	0.96	0.703
SM	0.711	0.94	0.673

Table 3 Discriminant Validity

	Square Root of AVE	SES	CA	SM
SES	0.82	0.82		
CA	0.84	0.62	0.84	
SM	0.82	0.58	0.61	0.82

Table 4 Model Fit Indices

Factors	Values	Factors	Values
CMIN	2.167	DF	1
Chi-square	2.143	P Value	0.000)
AGFI	.944	GFI	0.911
TLI	.901	CFI	.913
RMSEA	.022	RMR	0.016

IV. ANALYSIS AND RESULTS

Confirmatory Factor Analysis (CFA) confirmed robust convergent and discriminant validity. AVE values for SES (0.68), CA (0.703), and SM (0.673) exceeded 0.50, and CR values were above 0.90. The square root of AVE was higher than inter-construct correlations, ensuring discriminant validity (Table 3). Model fit indices indicated an excellent fit: CMIN = 2.167, Chi-square = 2.143, p = 0.000, AGFI = 0.944, GFI = 0.911, TLI = 0.901, CFI = 0.913, RMSEA = 0.022, RMR = 0.016 (Table 4).

➢ *Hypothesis Testing*

H1: SES significantly impacts student mobility ($\beta = 0.31$, p = 0.014), supporting H1.

Table 5 Direct Effect

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H1	SES→ SM	0.31	0.096	7.473	0.014	Supported

Table 6 Moderation Effect

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H2	SES → SM	0.37	0.071	7.649	0.000	Supported
H3	CA → SM	0.41	0.046	8.036	0.000	Supported
H4	SES_CA→SM	0.39	0.083	7.123	0.000	Supported

H2: SES influences student mobility with CA as a moderator ($\beta = 0.37$, p < 0.05), supporting H2. H3: CA significantly impacts student mobility ($\beta = 0.41$, p < 0.05), supporting H3. H4: The interaction of SES and CA significantly affects student mobility ($\beta = 0.39$, p < 0.05), supporting H4. H5: A significant positive correlation exists between SES and CA (r = 0.62, p < 0.05), supporting H5.

➢ *Multilevel Analysis of Push-Pull Factors*

The multilevel analysis revealed that push factors (e.g., limited infrastructure, lack of aesthetic appeal in Kerala's cities) and pull factors (e.g., quality education, career opportunities) significantly influence migration decisions. At the individual level, SES shapes access to resources, while cultural adaptation mitigates integration challenges. At the institutional level, university support systems (e.g., intercultural programs) enhance adaptation. At the societal level, diaspora networks and host country policies act as pull factors, reinforcing mobility intentions.
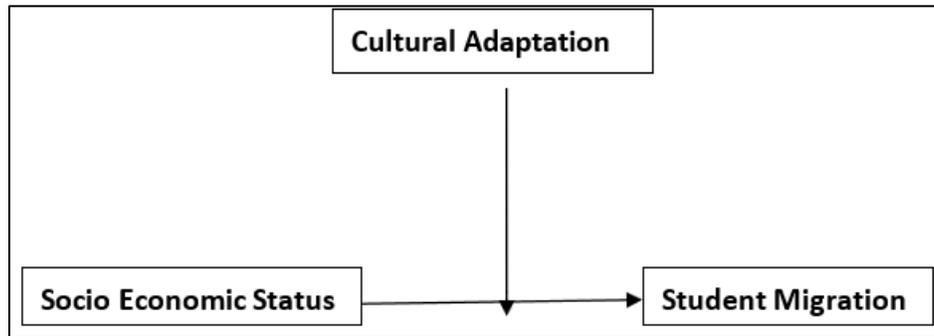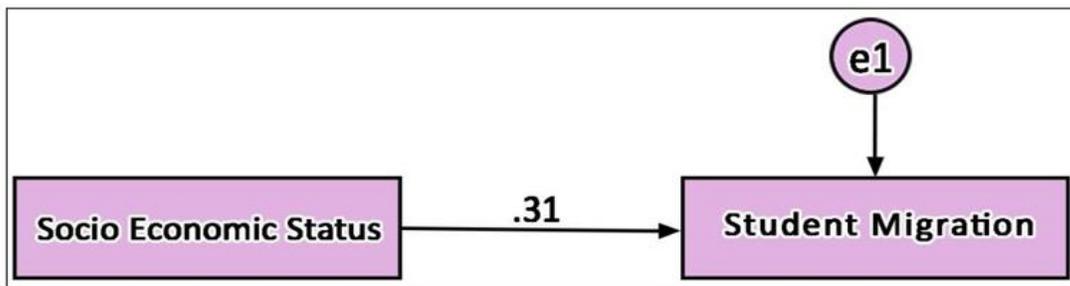
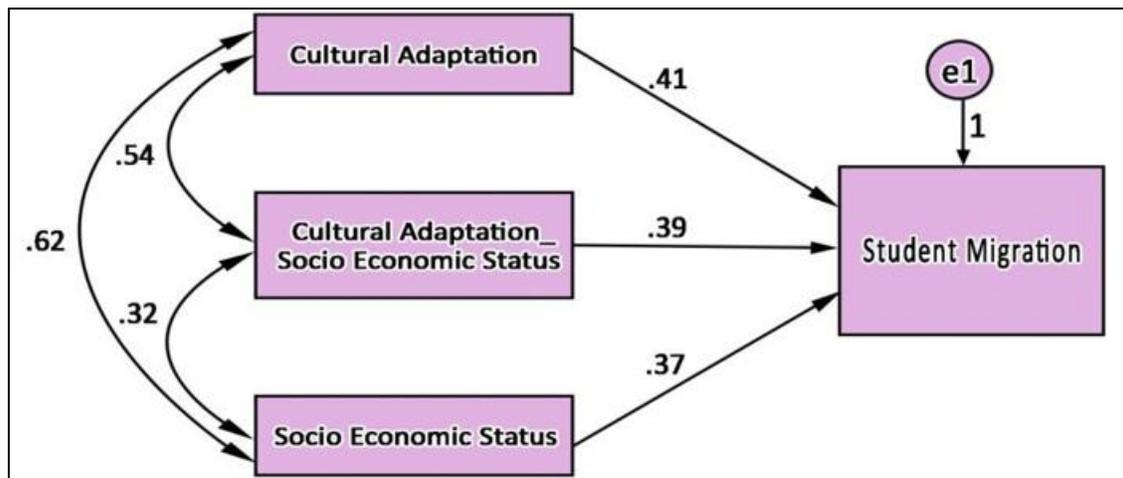Fig 1 Conceptual Framework

Fig 2 Direct Effect

Fig 3 Moderating Effect

V. DISCUSSION

This study underscores the complex interplay between SES, cultural adaptation, and international student mobility among Keralite students. SES directly influences migration decisions, with higher SES students accessing prestigious institutions and lower SES students relying on loans. Cultural adaptation partially moderates this relationship, enabling students to overcome integration challenges, though SES disparities persist. The multilevel analysis highlights the role of push factors (e.g., Kerala's infrastructure limitations) and pull factors (e.g., global career prospects) in driving mobility. The findings align with push-pull theory, confirming that migration is a multifaceted process influenced by individual, institutional,

and societal factors. Cultural adaptation, supported by university programs and peer networks, enhances students' resilience and success abroad (Mukthyala, 2013). However, challenges such as cultural distance and financial constraints underscore the need for inclusive policies to support diverse student populations.

VI. CONCLUSION

This study provides a comprehensive analysis of how socio-economic factors and cultural adaptation shape international student mobility from Kerala, using a multilevel push-pull framework. The results confirm that SES and cultural adaptation significantly influence migration intentions, with

push factors like limited local opportunities and pull factors like quality education driving the trend. Cultural adaptation mitigates integration challenges but does not eliminate SES disparities. These insights highlight the need for targeted interventions to support international students, particularly those from lower SES backgrounds.

SUGGESTIONS FOR FUTURE RESEARCH

Future studies should explore: Regional variations within Kerala to identify specific migration patterns. The role of financial aid and placement agencies as push-pull factors. Cognitive and psychological factors influencing cultural adaptation. Longitudinal studies to assess post-graduation migration outcomes and return migration trends.

IMPLICATIONS

The findings have implications for policymakers, educators, and institutions. Universities in host countries should enhance support systems, such as cultural exchange programs and counseling, to facilitate adaptation. In Kerala, improving educational infrastructure and career opportunities could reduce push factors driving migration. Additionally, financial aid programs can support lower SES students, promoting equitable access to international education.

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