Research Article

Interregional study destination choice: Application of Push, Pull, and Mooring Model

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Rendy Setya Pratama*
Management Department, BINUS Business School Master Program, Bina Nusantara University, Jakarta, Indonesia
rendy.pratama002@binus.ac.id

Valentino Dimas Aditya
Management Department, BINUS Business School Master Program, Bina Nusantara University, Jakarta, Indonesia
valentino.aditya@binus.ac.id

Ananda Raka Putra
Management Department, BINUS Business School Master Program, Bina Nusantara University, Jakarta, Indonesia
ananda.putra004@binus.ac.id

Evelyn Hendriana
Management Department, BINUS Business School Doctor of Research in Management, Bina Nusantara University, Jakarta, Indonesia
evelyn.hendriana@binus.ac.id

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Abstract

While determinants of international student choice have been much explored. Most of these studies are descriptive without examining the strength of each antecedent on student choice. Student mobility may also occur in inter-cities or provinces in countries with uneven education distribution of higher education. By considering concepts from international student mobility, this research aims to examine the influence of various push and pull factors on interregional study destination choice. This model is enriched with the cultural distance between regions as a mooring factor that might affect the acculturation process and student decisions. The survey was conducted using purposive sampling involving first-year students from outside Java Island currently studying in Yogyakarta. Data from 477 samples were analysed using PLS-SEM. This research found that all push factors, namely perceived benefits and origin image, significantly influenced the decision to study in Yogyakarta. Pull factors consisting of institution image, destination image, and social influence also had significant effects on the decision to study in Yogyakarta. However, this research failed to demonstrate the ability of cultural distance to reduce the influence of destination and institutional images on the decision to study in Yogyakarta.

Keywords:

Indonesia, Interregional mobility, Push-pull-mooring model, Student mobility, Study decision

1 Introduction

The benefits of higher education for someone's future encourage people to pursue it, even though they must leave their hometown (Li & Qi, 2019; Mazzarol & Soutar, 2002). This phenomenon motivates studies on students' decisions to pursue higher education outside their hometown, dominated by international student mobility (Abbas et al., 2021; Do & Le, 2020; Hailat et al., 2021). Students may also decide to study within their home country, but in other cities or provinces that offer better quality than in their hometown. There is not much research that discusses students' decisions to migrate for educational purposes in the domestic sphere, although there have been several studies discussing inter-city migration in other contexts (Kharif et al., 2019; Niu et al., 2022; Schewel & Fransen, 2018).

The phenomenon of educational migration can be explained using the push and pull model that was originally introduced to explain international labor migration. Push factors refer to factors that encourage individuals to make migration decisions. In terms of education, they include student's perceptions of personal benefits (Li & Qi, 2019; Khuong & Ha, 2014), the region of origin image (Mazzarol & Soutar, 2002; Bodycott, 2009; Columbu et al., 2020), and the region of origin institutional factors (Hailat et al., 2021). Pull factors consist of factors from the destination area or institution that attract someone to make migration decisions, such as social influence, the destination image, and the institution image (Li & Qi, 2019; Abbas et al., 2021; Do & Le, 2020; D'Agostino et al., 2019). This study extends the push and pull model by including the mooring factor to explain interregional educational migration since the decision-making might be moderated by social and cultural factors (Alexander, 2016). Cultural distance is used as an inhibiting or mooring factor in study migration (Mihai & Novo-Corti, 2020; Almutairi, 2020).

One country that experiences interregional migration for educational purposes is Indonesia due to its characteristics as an archipelagic country with quite large human development index disparities among provinces (Indonesia Statistics, 2023). Students from various regions choose to study in other provinces with a high human development index and some quality universities, with provinces on Java as their preferred destinations. The number of students in Indonesia in the 2020/2021 academic year was about 2 million, with an average growth of 100,000 students per year, which mostly studied in Java (Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia, 2021).

There is significant variability in socioeconomic indicators such as the Human Development Index (HDI), Gross Domestic Regional Product (GDRP), standard living costs, unemployment rate, and infrastructure development among Indonesia's provinces, even those located in Java Island. The characteristics of each province are also different which creates a unique destination image. As such, this study focuses on Yogyakarta, a province renowned for its concentration of higher education institutions and its unique cultural and historical appeal. This province is the second highest in terms of the human development index (Indonesia Statistics, 2023). It has many notable accredited tertiary institutions (Ministry of Education and Culture of the Republic of Indonesia, 2021) that make it the primary choice for prospective students from various regions to pursue higher education (UNESCO, 2018).

This study will fill in the gaps from previous research. First, the factors that influence migration decisions at the national level can differ greatly from the dynamics that occur in the international context (Nikou & Luukkonen, 2023). Second, previous research tends only to explain descriptively so the extent of each factor influencing students' decisions to migrate is unclear. Third, despite its potential influence, cultural distance as an inhibiting factor tends to be neglected in previous research on educational migration. This research aims to (1) examine the extent of various push and pull factors directing students to do interregional migration and (2) evaluate the potential moderating effect of cultural distance in the relationships between pull factors and students' decision to migrate.

2 Literature Review

2.1 Push, Pull, and Mooring Model

Heberle (1938) stated that a person's migration is motivated by push factors as negative factors that force people to leave their region of origin (e.g., lack of job opportunities and bad economic conditions in the region of origin) and pull factors as the positive aspects of a destination that attract people to migrate (e.g., better job opportunities, economic development, and higher incomes in the destination). To this day, the push and pull model continues to be used to explain the migration process (Urbański, 2022).

Migration decisions are not only based on macro push and pull factors but are also influenced by micro-level variables such as personal and social factors (Bansal, 2005). The concept of push and pull was further elaborated by Lee (1966) by including the intervening factors in the push-pull model (PPM). Moon (1995) proposed to predict migration using push factors that encourage people to migrate from their region of origin, pull factors from the destination region that attracts them, and their perception of personal, cultural, and regional issues that may facilitate or hinder the migrating decisions.

Later, PPM is not only used to explain worker migration but also various types of mobility, ranging from switching behaviour (Monoarfa et al., 2023) to student mobility for study purposes (Mazzarol & Soutar, 2002). For instance, Almutairi (2020) used the PPM model to understand the experiences and factors influencing international students' decisions to pursue their education in Saudi Arabia. Hoffmann et al. (2019) used this model and found the main reasons for migration are education, job opportunities with related income, and facilities, which were part of the push and pull factors. As such, this research uses the PPM model to understand the factors that influence students' decisions to undertake internal migration to pursue their education.

2.2 Push Factors

Push factors that currently have a negative influence on the quality of life in the region become a reason for moving (Lee, 1966; Moon, 1995). In the educational migration context, one of the push factors is perceived benefits, which cannot be

achieved if the student remains and continues their studies in the region of origin due to the low quality of education, small number of universities, and limited employment opportunities available (Bodycott, 2009).

Perceived benefits are perceptions of the positive consequences caused by specific actions (Leung, 2013). Curtis and Ledgerwood (2018) describe perceived benefits as positive aspects or advantages associated with a condition. By migrating, students can access a superior quality of higher education, have brighter career prospects (Bodycott, 2009), and live in a destination with better socio-economic conditions (Li & Qi, 2019; Unguren et al., 2021). Students may also learn new things and build connections (Khuong & Ha, 2014). If the perceived benefits are stronger, students are more likely to leave their hometown since individuals tend to maximize their benefits. Thus, the following hypothesis is proposed:

H1: Perceived benefits have a positive effect on educational migration decisions.

Origin image is the total of a person's descriptive, inferential, and informational beliefs about a specific region (Martin & Eroglu, 1993). This perspective focuses on the cognitive components of the region, such as economics, technology, politics, people, culture, environment, and climate (Suter et al., 2021). Bodycott (2009) states that aspects of economic, social, and political power in the origin influence students' decisions to migrate. The origin image, from not having specific study programs, the poor quality of the university (Mazzarol & Soutar, 2002), to the poor economic conditions of the region of origin (Columbu et al., 2020) contribute to the reasons for students to migrate for pursuing their education. It leads to the following hypothesis:

H2: Origin image has a negative effect on educational migration decisions.

2.3 Pull Factors

The decision to migrate is also influenced by the positive factors related to the destination recognized by migrants, called pull factors. In the context of educational migration, students are keen to choose a particular destination that has notable pull factors (Mazzarol & Soutar, 2002), such as a better quality of life, a better climate, and a good education system (Lee, 1966), as well as other attributes that make the destination more attractive (Bansal, 2005).

Destination image is the main factor that encourages people to visit a specific place (Trang et al., 2023). Destination image is an individual's mental image of the physical and atmospheric characteristics of the destination (Echtner & Ritchie, 1993) and is used in the decision-making process (Kotler & Gertner, 2002). Mazzarol and Soutar (2002) found that students' choice of educational destination was determined by the reputation and quality of the destination, cost of living, environment, and lifestyle. Good destination infrastructure, a highly safe environment, low discrimination, a friendly and open attitude of the population towards immigrants, and a more affordable cost of living are the primary considerations for students (D'Agostino et al., 2019) which influence the decision to choose an educational migration destination (Abbas et al., 2021). Thus, the following hypothesis is proposed:

H3: Destination image has a positive effect on educational migration decisions.

As students choose to leave their hometown for educational purposes, they must ensure the higher education quality in the destination is good and may provide bright job prospects (Li & Qi, 2019; Abbas et al., 2021; Do & Le, 2020; Mazzarol & Soutar, 2002). Institution image shows its competitive advantage measured by its reputation, quality of programs and courses, and teaching and research innovation (Nghiêm-Phú & Nguyễn, 2019) that will impact students' willingness to apply (Parameswaran & Glowacka, 1995).

Reputable and prestigious universities with quality curricula tend to influence migration decisions (Do & Le, 2020). As reported by Mazzarol and Soutar (2002), if students perceived that the reputation and lecturers' qualifications of the universities in the destination were better compared to universities in their origin, they would be more motivated to continue their education there. The relationship is presented as follows:

H4: Institutional image has a positive effect on educational migration decisions.

Social influence occurs when individual decision-makers become aware of the choices made by their social networks and encourage them to make the same choices (Pan et al., 2019). This influence arises when students have family or friends who have studied or are currently studying in the destination region (Mazzarol & Soutar, 2002). It also includes suggestions and recommendations from parents about the destination (Li & Qi, 2019; Mazzarol & Soutar, 2002), friends, or teachers at school (Abbas et al., 2021). The parents' expectations for their children to be successful in life by equipping them with a good education and the students' curiosity based on their friends' experience when studying abroad influence them to migrate (Li & Qi, 2019). The following hypothesis is proposed:

H5: Social influence has a positive effect on educational migration decisions.

2.4 Mooring Factor

Students often experience culture shock when studying in a destination that has a different culture from their origin. Zhou et al. (2008) define culture shock as a psychological and emotional impact experienced by individuals, such as students studying at universities in countries with completely different cultures from their culture of origin. Culture shock is driven by anxiety caused by the loss of all familiar signs and symbols in social relationships (Oberg, 1960) that may occur because of cultural barriers such as language barriers. Research in Saudi Arabia found that the possibility of experiencing culture shock becomes one of the considerations for international students to study in another country (Almutairi, 2020).

Culture shock occurs because of the cultural distance between the origin and the destination (Ward et al., 2020). Cultural distance is defined as the extent of the differences in norms and values between the origin and destination (Kogut & Singh, 1988). Mihai and Novo-Corti (2020) explained that cultural distance strongly influenced migration decisions, especially in Europe. Demes and Geeraert (2013) stated that cultural distance, such as differences in lifestyle, socialization styles, and

city rhythms that occur inside and outside the university environment, can be felt by people when migrating. Even though the destination has a good image and institutions, students may reconsider their decision to migrate if the cultural distance is too high, as presented as follows:

H6: The cultural distance factor weakens the influence of destination image on educational migration decisions.
H7: The cultural distance factor weakens the influence of institutional image on educational migration decisions.

Figure 1 illustrates the research model that will be tested through this study.

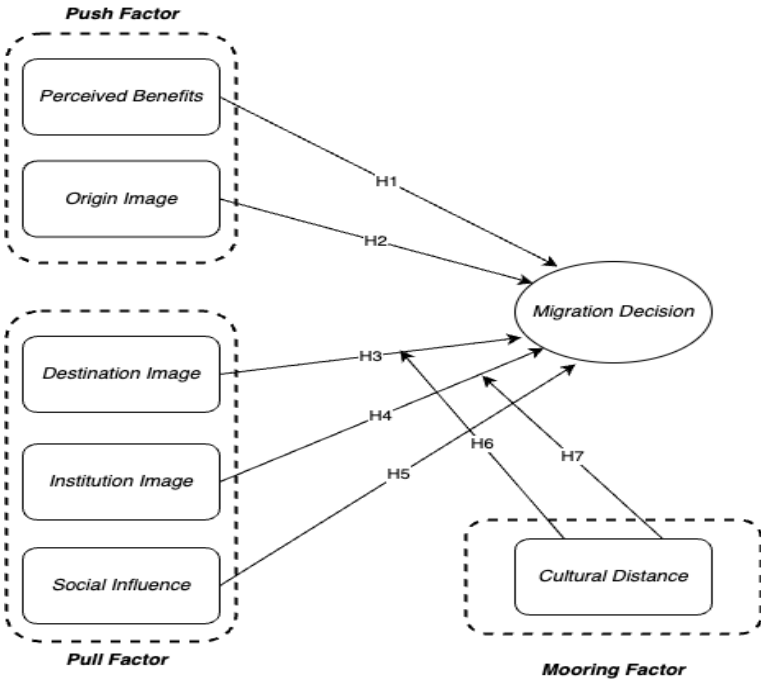


Figure 1: Research Model

3 Methodology

3.1 Research Design

The hypotheses were examined using quantitative research. The target population was students from other provinces studying in Yogyakarta. This study applied judgmental sampling by involving first-year students because culture shock generally occurs during the first nine to 24 months after students move (Wang et al., 2018). To maximize the impact of cultural distance, this research only included students from outside Java. Data were collected from active students studying at universities with first-class accreditation status because institutional quality has a significant role in educational migration decisions (Tran et al., 2018). The minimum sample size of 205 was needed following a sample-to-item ratio of 5-to-1 (Hair et al., 2010).

3.2 Data Collection and Measurement

Questionnaires were distributed online as a survey instrument. The questionnaire consisted of three parts and was delivered in Indonesian language. The first part contained screening questions, the second part asked about respondents' profiles, and the third section measured respondents' opinions on each research variable with a total of 41 indicators. Perceived benefits were measured using seven indicators adopted from Li and Qi (2019) and Khuong and Ha (2014). The origin image was measured by five indicators taken from Mazzarol and Soutar (2002), Bodycott (2009), and Columbu et al. (2020). Destination image was measured with seven indicators adopted from D'Agostino et al. (2019), Abbas et al. (2021), and Mazzarol and Soutar (2002). Institutional image was measured with seven indicators adopted from Do and Le (2020) and Mazzarol and Soutar (2002). Social influence was measured with five indicators from Li and Qi (2019) and Abbas et al. (2021). Cultural distance was measured with five indicators adopted from Demes and Geeraert (2013). Study migration decision variable is measured with five indicators adapted from Souiden et al. (2017) and Hanaysha (2017). All indicators were measured using a 5-point Likert scale.

3.3 Data Analysis Technique

Most research on educational migration decision factors was conducted in international contexts and limited to descriptive analysis (Mazzarol & Soutar, 2002; Cheung et al., 2019; Sim et al., 2021; Shahrokh et al., 2023). The influence of push, pull, and mooring factors in educational migration decisions, especially in interregional migration, has not been well tested. Therefore, this study used PLS-SEM to maximize the explained variance of a dependent variable (Hair et al., 2021), and data were analysed using SmartPLS 4.

4 Results

The survey from May to September 2023 was able to get 506 respondents, of whom 477 met the criteria. The survey obtained a balanced gender distribution; the composition of female respondents is slightly more than that of males. Per Indonesia's condition as a country with the largest Muslim population in the world (World Population Review, 2023), almost 80% of respondents are Muslim. Geographically, respondents came from various regions, dominated by students from Sumatra, followed by Kalimantan. Most Indonesian students viewed the quality of state universities as superior, with cheaper tuition fees, as shown by most respondents who study at state universities with private funding sources.

Table 1: Respondents' Profile

Characteristic	Description	Frequency	Percentage
Gender	Male	233	48.8%
	Female	244	51.2%
Religion	Islam	378	79.2%
	Christian	30	6.3%
	Catholic	35	7.3%
	Hindu	28	5.9%
	Buddha	5	1%
	Confucian	1	0.2%
Place of Origin	Sumatra	225	47.2%
	Kalimantan	103	21.6%
	Bali, West and East Nusa Tenggara	68	18%
	Sulawesi	44	9.2%
	Maluku Islands	12	2.5%
	Papua	7	1.5%
University Type	Public	339	71.1%
	Private	138	28.9%
Source of Financing	Full Scholarship	11	2.3%
	Partial Scholarship	20	4.2%
	Self-financing	446	93.5%

Of the 41 indicators, eight indicators did not meet the validity requirements based on the internal validity and reliability check. The remaining indicators met the criteria with a factor loading of at least 0.7 (Hair et al., 2021) and an AVE between 0.593 and 0.700. Latent construct reliability was fulfilled with Cronbach's alpha for all constructs between 0.771 and 0.890, and composite reliability in the range of 0.853 and 0.921 (Table 2). Table 3 shows the fulfilment of discriminant validity requirements based on Fornell-Larcker and HTMT, where the root value of AVE was higher than the correlation coefficient with other constructs (Fornell & Larcker, 1981) and the HTMT values were below 0.9 (Henseler et al., 2015; Voorhees et al., 2016).

Table 2: Results of validity and reliability test results (n = 477)

Variable	Item	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
Perceived Benefits (MOT)	MOT2	0.905	0.890	0.920	0.700
	MOT3	0.896			
	MOT4	0.726			
	MOT5	0.888			
	MOT6	0.750			
Origin Image (ORI)	ORI1	0.787	0.884	0.915	0.683
	ORI2	0.847			
	ORI3	0.794			
	ORI4	0.845			
	ORI5	0.856			
Social Influence (SOC)	SOC1	0.810	0.774	0.869	0.688
	SOC3	0.866			
	SOC5	0.812			
Destination Image (DES)	DES1	0.820	0.888	0.915	0.643
	DES2	0.753			
	DES3	0.786			
	DES4	0.790			
	DES6	0.816			
	DES7	0.842			
Institution Image (INS)	INS1	0.844	0.882	0.913	0.679
	INS2	0.841			
	INS4	0.829			
	INS5	0.823			
	INS7	0.780			
Cultural Distance (CUL)	CUL1	0.786	0.853	0.895	0.629
	CUL2	0.767			
	CUL3	0.808			
	CUL4	0.804			
	CUL5	0.801			
Migration Decision (DCS)	DCS1	0.724	0.771	0.853	0.593
	DCS2	0.797			
	DCS3	0.736			

Variable	Item	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
	DCS4	0.819			

Table 3: Discriminant Validity based on Fornell-Larcker Criterion

	CUL	DCS	DES	INS	MOT	ORI	SOC
CUL	0.793						
DCS	0.639	0.770					
DES	0.698	0.741	0.802				
INS	0.672	0.728	0.796	0.824			
MOT	0.597	0.741	0.753	0.700	0.837		
ORI	-0.518	-0.562	-0.503	-0.424	-0.485	0.826	
SOC	0.566	0.663	0.646	0.623	0.601	-0.654	0.830

Table 4: Discriminant Validity based on HTMT

	CUL	DCS	DES	INS	MOT	ORI	SOC
CUL							
DCS	0.780						
DES	0.800	0.887					
INS	0.765	0.869	0.892				
MOT	0.686	0.894	0.849	0.787			
ORI	0.592	0.674	0.556	0.469	0.540		
SOC	0.692	0.852	0.773	0.747	0.722	0.785	

There is no common method bias found in this study as the analysis resonates with Hair et al. (2019) suggestion of a VIF threshold of 5 for gauging multicollinearity in regression (Table 5). This result reinforces the reliability of our regression model and supports the alignment with established guidelines. This SEM model had a good predictive model (Hair et al., 2019, 2021) with Q2 of 0.673, and 75 percent of the items measuring the dependent variable had RMSE values of PLS-SEM lower than the values of the linear model (Table 6).

Table 5: VIF - Inner Model

	VIF
CUL → DCS	2.401
DES → DCS	3.894
INS → DCS	3.485
MOT → DCS	2.594
ORI → DCS	2.039
SOC → DCS	2.472
CUL x INS → DCS	4.434
CUL x DES → DCS	4.187

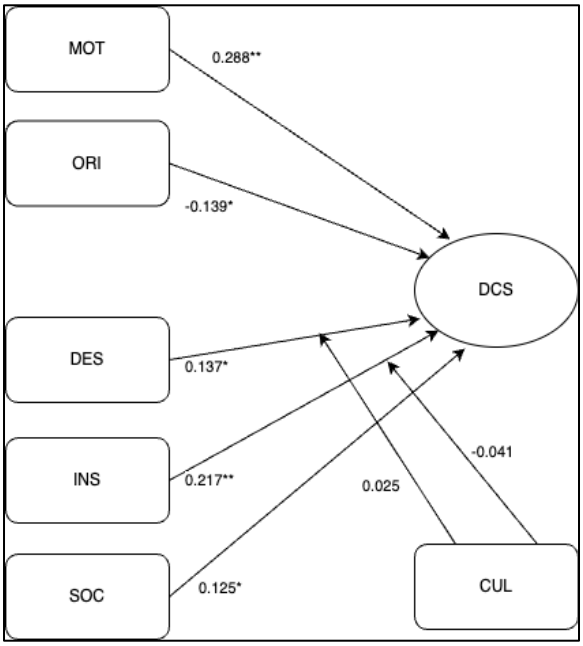
Table 6: Result of MV Prediction Summary

	Q^2 predict	PLS-SEM_RMSE	LM-RMSE
DCS1	0.349	0.536	0.542
DCS2	0.485	0.469	0.479
DCS3	0.316	0.796	0.771
DCS4	0.437	0.591	0.609

Hypothesis testing was carried out by bootstrapping with 5,000 sub-samples, the results are shown in Table 7 and Figure 2. All push, pull, and mooring factors could explain the variability of interregional study decisions by 69.2 percent, which was categorized as moderate (Cohen, 1988; Hair et al., 2021).

Both push factors were found to have a significant influence in forming educational migration decisions. Perceived benefits (β=0.288, $p<0.001$) were found to have a stronger influence than the origin image (β=-0.139, $p<0.05$) in influencing educational migration decisions, supporting H1 and H2. In addition, the three pull factors were found to have a significant influence in forming decisions to study in Yogyakarta. Institutional image (β=0.217, $p<0.001$), as the pull factor, had the strongest influence, followed by the influence of social influence (β=0.125, $p<0.05$) and destination image (β=0.137, $p<0.05$) in influencing educational migration decisions, supporting H3, H4, and H5. Cultural distance did not moderate the relationship between destination image and migration decision (β=0.025, $p<0.338$),

as well as the relationship between institutional image and migration decision (β=-0.041, p<0.0216), not supporting H6 and H7.



Note(s): *p < 0.05, **p < 0.001, NS = Not significant

Figure 2: Path Diagram

Table 7: Results of Hypothesis Test

Hypothesis	Path coefficient	S.E.	t-value	p-value	f^2	Remarks
H1: MOT → DCS	0.288	0.044	6.510**	0.000	0.104	Supported
H2: ORI → DCS	-0.139	0.044	3.182*	0.001	0.031	Supported
H3: DES → DCS	0.137	0.070	1.941*	0.026	0.016	Supported
H4: INS → DCS	0.217	0.050	4.346**	0.000	0.044	Supported
H5: SOC → DCS	0.125	0.045	2.770*	0.003	0.021	Supported
H6: DES x CUL → DCS	0.025	0.061	0.419	0.338	0.001	Not Supported
H7: INS x CUL → DCS	-0.041	0.052	0.784	0.216	0.002	Not Supported

5 Discussion

This research confirms that the decision to migrate for educational purposes is influenced by push and pull factors. Of the two push factors, perceived benefits were found to have a positive influence on the decision to study in other areas, supporting

the research of Li and Qi (2019), Unguren et al. (2021), and Khuong and Ha (2014). It appears that this variable has a greater influence than the origin image. This is because perceived benefits are directly related to the reasons individuals seek better education, such as building connections (Brandt & Hagge, 2020) and better job opportunities (Alexander, 2021). Meanwhile, the origin image showed a negative effect, which is consistent with descriptive research from Mazzarol and Soutar (2002) and Columbu et al. (2020). If students have negative perceptions about their home region, such as limited educational or job opportunities, they tend to seek change and better opportunities by studying in another region (Alexander, 2021).

Of the three pull factors, the institutional image was found to have a positive influence on decisions to study in other areas, supporting the findings of Li and Qi (2019), Abbas et al. (2021), Do and Le (2020), and Mazzarol and Soutar (2002) stating that students consider the institutional image when deciding to study abroad. The influence of this variable is more dominant than other pull factors as the institution's reputation is commonly used as a quality indicator by students. The quality of higher education can open bright career opportunities for students (Parameswaran & Glowacka, 1995; Do & Le, 2020). The destination image showed a positive effect on educational migration decisions, which is consistent with D'Agostino et al. (2019) and Abbas et al. (2021). However, as shown by the effect size, the strength is very weak. As such, the effect of destination image on migration decisions for study in domestic context should be understood with caution. When students see a destination as safe, friendly, affordable, and free from discrimination, they are more likely to choose to study there.

Social influences also motivate educational migration decisions, in line with the research of Li and Qi (2019), Mazzarol and Soutar (2002), and Abbas et al. (2021) on the Asian and European continents. An individual's success in being accepted at one of the prestigious universities will be a source of pride for their family and alma mater, as well as their hopes of having brighter career prospects. It causes family, friends, and teachers to provide encouragement and recommendations to study in other regions (Mazzarol & Soutar, 2002; Li & Qi, 2019; Abbas et al., 2021).

Interestingly, cultural distance fails to weaken the influence of destination and institutional images on migration decisions, which does not support the findings from Mihai and Novo-Corti (2020) and Demes and Geeraert (2013). The students from outside the region with different cultural and social backgrounds may have successfully integrated themselves or adapted well to their new environment (Malay et al., 2023; Lovin et al., 2023). The high mobility of people between islands, especially to and from Java (Cabinet Secretariat Public Relations of the Republic of Indonesia, 2023) and exposure to mass media causes people from outside Java to be better prepared to face these differences (Abdel-Rahim et al. al., 2021).

6 Conclusion

Previous research on students' decision to pursue their education has used a push-and-pull model, such as research by Mazzarol and Soutar (2002), Cheung et al. (2019), Sim et al. (2021), and Shkoler and Rabenu (2022). These studies generally only provide descriptions of the factors that influence the decision to choose a study

destination in the international context, and there are not many studies on internal and national migration. The lack of empirical research examining the factors that influence interregional migration to continue education encourages this research by applying the PPM model.

The research results show that all push and pull factors directly influence the decision to pursue education in other regions, with perceived benefits as the strongest push factor and institution image as the strongest pull factor. These findings show similarities in the students' consideration factors when deciding to migrate for educational purposes, both domestically and internationally. However, cultural distance does not weaken the influence of the attractiveness of institution image and destination image on interregional migration decisions, which is different from international education migration decisions.

These findings provide valuable guidance for academic institutions in student recruitment strategies. First, seeing that perceived benefits have the strongest influence on internal migration decisions, universities must emphasize this aspect for promotion. Students generally choose universities considered promising for a better future (Mazzarol & Soutar, 2002; Li & Qi, 2019). Therefore, the institutional image of the university plays a significant role because the reputation and quality of the institution will determine the quality and career prospects of its graduates. For this reason, higher education institutions need quality lecturers, a curriculum that is in line with current developments and industry needs, as well as supporting educational facilities and infrastructure.

Second, some students hope to live and work in their study destination after graduation (Mazzarol & Soutar, 2002). To attract and retain students and graduates in the study destination, the local government should improve the region's infrastructure, security, and conduciveness. Later, the region's attractiveness should be included in the materials when promoting its education institutions to prospective students. Since students who choose to study in other regions have the potential to cause brain drain, it is detrimental to their region of origin (Baruch et al., 2007). To avoid this possibility, local governments of origin must provide incentives as well as attractive and promising job opportunities to graduates. At the same time, they must improve their education quality and regions' infrastructure.

Last, students tend to listen to the opinions of people who are considered important when deciding where to study, especially in collectivist countries (Mok et al., 2020). To maximize the impact of social influence in choosing study destinations, educational institutions can collaborate with alumni who are successful in the industry or invite leading academic experts to positively influence students' decisions in choosing the institution and study programs.

6.1 Limitation and Further Research

Despite its contributions, this study cannot avoid several limitations in interpreting the results. First, the results may have limited generalizability because it only focuses on students who migrated to Yogyakarta for educational purposes. Thus, the conclusions drawn from this study may not directly apply to different populations or migration cases. Future research must consider expanding the scope

by analysing a more diverse group based on regions because various factors, including cultural, economic, social, and academic differences, can significantly influence educational migration decisions, and these influences may differ across regions.

This research only covers a certain time, while external factors may change in the region of origin, destination, and universities (Mathies & Karhunen, 2020). Therefore, it is necessary to test the model in the future. Finally, the push, pull, and mooring factors included in this study are limited to perceived benefits, the origin image, destination image, institution image, and cultural distance. Future research may consider other aspects, such as education costs (Weber & Van Mol, 2023), gender, religion (Nguyen & McLaren, 2020), and financial support or incentives (Baluku et al., 2021). These variables are critical to obtaining a comprehensive understanding of educational migration decisions that enable institutions, policymakers, and prospective students to make informed choices and create more effective strategies and policies.

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Appendix

Variable	Measurement Items	Sources
Perceived Benefits	1. Graduates from Yogyakarta universities find it easier to secure employment 2. Graduates from Yogyakarta universities have a broader range of career choices 3. Graduates from Yogyakarta universities have better career prospects 4. Studying in Yogyakarta fulfills my desire to learn something new 5. Studying in Yogyakarta fulfills my desire to live in a new place 6. Studying in Yogyakarta fulfills my desire to live where I want 7. Studying in Yogyakarta allows me to build connections with people from various regions	Li & Qi (2019); Khuong & Ha (2014)
Origin Image	1. Universities in my home region do not offer the study program I desire 2. The quality of universities in my home region is not good enough 3. The university quota in my home region is limited 4. There are only a few universities in my home region 5. My home region has a poor economic condition	Mazzarol & Soutar (2002); Bodycott (2009); Columbu et al. (2020)
Social Influence	1. Studying in Yogyakarta will bring pride to my family 2. Many of my friends decide to pursue their studies in Yogyakarta 3. My parents believe it is easier to secure a good job if I study in Yogyakarta 4. Parents recommend me to pursue my studies in Yogyakarta 5. My high school teachers recommend me	Li & Qi (2019); Abbas et al. (2021)

	to study in Yogyakarta	
Institution Image	1. Universities in Yogyakarta have a good academic reputation 2. Universities in Yogyakarta have a quality curriculum 3. This university has adequate resources to meet the learning needs of students 4. Universities in Yogyakarta are more prestigious 5. Universities in Yogyakarta offer a conducive learning environment 6. The university's reputation in Yogyakarta is well-known to companies 7. The quality of lecturers at universities in Yogyakarta is higher	Do & Le (2020); Mazzarol & Soutar (2002)
Destination Image	1. This city/region has good infrastructure 2. This city/region has a high level of security 3. Residents in this city/region are open to newcomers 4. The cost of living in this city/region is affordable 5. This city/region has a low level of discrimination 6. This city/region is a pleasant place to live 7. This city/region provides a conducive environment for learning	D'Agostino et al. (2019); Abbas et al. (2021); Mazzarol & Soutar (2002)
Cultural Distance	1. Friendship style in this city/region is very different from my home region 2. The moral values of the community in this city/region are very different from my home region 3. There is a significant difference in the population size between my home region and this city/region 4. The pace of life in this city/region is	Demes & Geeraert (2013)

	different (faster or slower) than my home region	
	5. The lifestyle in this city/region is very different from my home region	
Migration Decision	1. Moving to Yogyakarta is the right decision	Souiden et al (2017); Hanaysha (2017)
	2. I am happy with my decision to study in Yogyakarta	
	3. I will settle in Yogyakarta after completing my studies	
	4. If I continue my studies later on, I will still choose to study in Yogyakarta	
	5. Overall, I am satisfied with my migration to Yogyakarta	