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*Published in:*  
Journal of Applied Research in Higher Education

*DOI:*  
[10.1108/JARHE-04-2023-0149](https://doi.org/10.1108/JARHE-04-2023-0149)

Published: 18/09/2023

*Document Version*  
Final published version

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*Please cite the original version:*  
Nikou, S., Kadel, B., & Gutema, D. M. (2023). Study destination preference and post-graduation intentions: a push-pull factor theory perspective. *Journal of Applied Research in Higher Education*.  
<https://doi.org/10.1108/JARHE-04-2023-0149>

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# Study destination preference and post-graduation intentions: a push-pull factor theory perspective

Study  
destination  
preference

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Received 15 April 2023  
Revised 10 July 2023  
18 August 2023  
Accepted 18 August 2023

## Abstract

**Purpose** – The choices that international students make regarding abroad study destination selection or leave the host country after graduation are influenced by a variety of factors that are both related to positive and negative aspects of the host country.

**Design/methodology/approach** – This study builds on the push-pull factor theory and examines the factors that influence international students' decision to choose abroad study destination (Finland) or leave the country after their graduations. The data were collected through an online survey of 195 international students currently studying in Finland and were analysed using partial least squares structural equation modelling (PLS-SEM) technique. This method offers a flexible and robust approach to test relationships, particularly in situations where sample size and the conceptual model are small and complex.

**Findings** – The results show that international students' choice of study destination (Finland) is influenced by the host country's quality of life, academic excellence and economic factors such as salary and benefits. Unfamiliarity with the culture and language barriers have a negative impact on their decisions to stay in the host country after graduation.

**Originality/value** – By utilising a comprehensive analysis of both push and pull factors in relation to the host country, this study unveils a novel perspective in the field of international student mobility. The results provide insights to the institutional leaders and policymakers into how to attract and retain international students by focusing on the factors that matter most to international students. To attract more international students, higher education institutions (HEIs) should include career development activities, e.g. job fairs, language training, scholarships and internships in their curriculum. Moreover, it provides recommendations on how to create a welcoming and supportive environment that promotes academic excellence and career development.

**Keywords** Abroad study, International students, Higher education, Migration

**Paper type** Research paper

## 1. Introduction

In recent years, there has been a global rise in the number of students who are leaving their home countries to study at universities abroad (Cebolla-Boado *et al.*, 2018; Chen, 2016; Nghia, 2019; Pungas *et al.*, 2015). The increasing number of students studying abroad has made international education a highly competitive field on a global scale. As a result, universities and other higher

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**Data availability:** The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.



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education institutions (HEIs) are continually working to enhance the appeal and quality of their educational programmes to remain competitive and attract more international students (Lomer *et al.*, 2018; Sin *et al.*, 2019). Several countries have implemented significant changes to their immigration policies and organisational structure related to international education in an effort to attract more international students to their countries (Liu *et al.*, 2018; Lomer *et al.*, 2018). Given the important strategic role that international students and skilled talents play in expanding a nation's economic opportunities, various countries have implemented plans and initiatives to attract more international students to their HEIs (Abbas *et al.*, 2021; Sin *et al.*, 2021; Yilmaz and Temizkan, 2022). As an example, when Canada introduced its new international education strategy in 2013, it emphasised the significance of retaining and drawing in international students and linked it to its economic policy (Citizenship and Immigration Canada, 2013 [1]; Government of Canada, 2014 [2]). Canada has enhanced its appeal to students by providing varied courses, scholarships, permanent residency options and increased work hours. Similarly, the US recognises the importance of international students to its economy and remains the top destination for foreign students, with universities relying on their tuition for funding and global competitiveness (Geddie, 2015; Hegarty, 2014).

In the Finnish HEIs context, the government has recently updated its national and visa policies for international talents in response to a declining workforce [3]. The government aims to attract and retain skilled international students and employees to maintain competitiveness in the workforce (Li and Pitkänen, 2018). Such changes to student residence permits aim to facilitate international students' completion of studies and post-graduation employment. The Finnish government hopes to maintain its competitiveness by retaining the international students, leading to improvements in their employment prospects after graduation; therefore, many adjustments have been made to support this goal [3].

As students view international education as a way to acquire global competencies and experience (Glavee-Geo and Mørkeset, 2016; Yang and Chang, 2023), educational institutions must comprehend the factors that impact their decision to pursue higher education abroad (Beloucif *et al.*, 2022; Dowling-Hetherington, 2020; Fajčíková and Urbancová, 2019; James-MacEachern and Yun, 2017). Furthermore, research has indicated that the decision to study abroad is a complex process, and it can be a difficult and costly undertaking for students (Davey, 2005; Eder *et al.*, 2010; Mazzarol, 1998). Several studies have examined the reasons why students decide to study abroad and how they choose their destination country, using frameworks like the push-pull factor theory (Lisana, 2022; Mazzarol and Soutar, 2002). Pull factors, such as education quality and push factors, such as limited job opportunities in both the host and home countries influence the decision to study abroad. Moreover, improved education, immigration opportunities, job prospects and cultural understanding are among the key reasons for studying abroad (Yilmaz and Temizkan, 2022).

The present research seeks to shed light on the factors influencing students' decisions to study in Finland, as well as their subsequent intentions to leave or stay in the country upon graduation. While previous studies have mainly focused on well-known study destinations like the USA, UK, Australia and China, there is a scarcity of research in the Nordic region. Finland is recognised for providing high-quality education attracting a significant number of international students each year (7,060 in 2022 compared to 4,595 in 2021 [4]) (Kyrö and Nyssölä, 2006; Sahlberg, 2021). The increasing popularity of Finland as a study destination is likely due to the rising number of international students in the country, and thus, international education is seen as a means to indirectly boost the Finnish economy (Cai and Kivistö, 2013; Mughul and Pekkola, 2009). Despite Finland's success in attracting a significant number of international students, there is limited understanding of what factors motivate students to pursue higher education in this country (Mathies and Karhunen, 2021). Furthermore, there is a lack of research that examines the specific factors that may discourage students to study abroad and how they impact their decision-making. This paper aims to address the gap in the literature by

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investigating the pull and push factors that international students took into account when making their decision to choose Finland as their study destination, or to leave the host country after graduation. In other words, the aim is to identify factors affecting the relocation decisions of international students. The research questions are:

*RQ1.* What pulling factors played a positive role for international students when choosing Finland as the abroad study destination?

*RQ2.* What pushing (challenges and barriers) factors play a negative role in international students' inclination to remain in Finland after graduation?

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To investigate the research questions, a conceptual model was developed utilising the push-pull factor theory. Data was collected from international students currently studying in Finland through an online survey questionnaire and analysed using structural equation modelling techniques.

By utilising a comprehensive analysis of both push and pull factors in relation to the host country, this study unveils a novel perspective in the field of international student mobility. Traditionally, literature has predominantly focused on the push-pull framework, which distinguishes between positive factors in the host country (pulling factors) and negative factors in the home country (pushing factors). However, the current research aims to break away from this conventional understanding by considering the push and pull factors associated with Finland as both negative and positive factors, respectively. By redefining the push-pull construct within the context of the Finnish higher education system, this research expands the theoretical framework and offers a fresh lens through which to examine the complexities of international student mobility. The positive factors, which act as a pull towards Finland, are identified as pivotal determinants in students' decision-making processes. Simultaneously, the challenges and barriers encountered during their study experience in Finland are viewed as push factors, negatively influencing their inclination to remain in the country after graduation.

This theoretical approach not only challenges the existing literature but also presents an original contribution to the understanding of international student mobility in Finland. By considering the multifaceted nature of push and pull factors and their interplay within the host country context, this research opens up new avenues for comprehending the decision-making dynamics of international students. The findings of this study have implications for policymakers, educational institutions and other stakeholders involved in attracting and retaining international students in Finland. The nuanced perspective on push (the lack of familiarity with the local culture and language barriers) and pull (quality of life, academic excellence and economic factors such as salary and benefits) factors provides a deeper understanding of the complex factors that shape the choices and intentions of international students, thereby facilitating the development of effective strategies to enhance Finland's attractiveness as a destination country for international education.

Furthermore, the study offers recommendations to HEIs, managers, institutional leaders and policymakers on how to attract and retain international students by focusing on the factors that matter most to international students. These recommendations include incorporating career development activities, such as job fairs, scholarships and internships into the curriculum and creating a welcoming and supportive environment that promotes academic excellence and career development. Therefore, the findings from the Finnish context reveal unique insights into the phenomenon of international students' attraction and retention and their decision-making processes.

## 2. Theoretical background and hypothesis development

[Ravenstein \(2021\)](#) examined the laws of migration, and the findings of that study later formed the foundation of the push-pull model. Ravenstein observed that human migration is affected

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by push-pull effects (Lee, 1966). The model depicts migration as a result of the interaction and effects of two main factors. While push factors are the negative elements that exist in the home country and push people to leave that location (e.g. the lack of quality education in the home country). Pull factors are the positive elements of the host country (e.g. better education and job prospects. Since its introduction, the model has become one of the most widely used theoretical models for explaining human migration in general (Gbollie and Gong, 2019; Kim *et al.*, 2003). In addition, a modified version of the theory, the push-pull-mooring model, has been applied in marketing research to understand consumer switching behaviour (Bansal *et al.*, 2005).

Educational researchers have employed the push-pull model to explain international students' mobility, their decisions to study abroad, the selection of the destination country and educational institution (Chen, 2007; Gbollie and Gong, 2019; Gesing and Glass, 2019; Gutema *et al.*, 2023; Li and Bray, 2007; Mazzarol and Soutar, 2002; Nikou and Luukkonen, 2023). Agarwal and Winkler (1985) found that the cost of education, home country opportunities, perceived benefits and per capita income can impact students from developing countries who wish to study in the USA. Moreover, Lee (2017) used a push-pull model to examine Chinese undergraduate students' decision to study abroad, as well as their perceptions of the opportunities and challenges associated with international education. The results revealed that factors such as location, education quality, cost and recommendations are pulling factors and competition, absence of preferred field, language barriers and job market are considered as the pushing factors.

### 2.1 Pull factors

It is critical to understand the factors that impact students' decisions in choosing a destination country, from different perspectives (Chao, 2020; Nghia, 2019; Nghiê-m-Phú and Nguyễn, 2020). Many developed nations worldwide compete to attract international students, skilled workers and talented individuals (Chacko, 2021). McMahon (1992) investigated the movement of students from developing countries to developed countries and identified three critical factors that influenced the selection of host countries: (1) the host country's economic power, (2) the economic, political and cultural ties between the student's home and the host country and (3) the support (such as scholarships and other aid) given to international students by the host country.

Mazzarol and Soutar (2002) used the push-pull model to investigate why students from Indonesia, Chinese Taiwan, India and Chinese Mainland want to study abroad and what factors influence their choice of study destination. The study found that students are motivated to study abroad by the perception that it is better than studying at home, difficulties gaining admission to local schools, unavailable degree programmes, a desire to learn about Western culture and a desire to settle in the host country. While factors in the host country (pull) are attractive, those in the home country (push) motivate students to study abroad. In addition, Mazzarol and Soutar (2002) identified financial reasons, host country environment, proximity to other countries, personal connections and recommendation of others as major factors influencing students' decision to study abroad. Eder *et al.* (2010) found personal development, language proficiency and career growth to be motivating factors, while course offerings, education quality, welcoming environment, geographic location and cultural aspects of the country were identified as pulling factors for studying in the USA.

Costs and visa-related issues were also significant constraints, identified as structural factors affecting students' choice to study abroad. Al-Rahmi *et al.* (2020) found that choosing to study abroad requires significant investment of time and money, while Maringe (2006) identified career prospects, programme and price as factors influencing this decision. Abbas and Sagsan (2019) also noted that poor education quality and limited career prospects in the

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home country are push factors. Findlay *et al.* (2016) added that pull factors such as education infrastructure, quality institutions, career prospects and graduate market value can make a country an attractive study destination. Family opinion and recommendations play also significant roles in a students' decision to study abroad, as evidenced by Pimpa (2003) and Chen (2006) studies. Tuition fees, financial aid opportunities, educational standards, visa accessibility, university reputation, education quality and personal contacts all play a role in decision-making, according to Branco Oliveira and Soares (2016) and Mazzarol and Soutar (2002).

In summary, previous studies have identified several factors that influence students' decisions to leave their home country and select a study destination country. For example, limited opportunities for career development in their home country, as well as the reputation and quality of educational institutions in the host country, which help to attract international students (Binsardi and Ekwulugo, 2003; Mazzarol and Soutar, 2002). Additionally, economic factors and cost considerations such as tuition fees, living costs and travel costs were found to be important (Binsardi and Ekwulugo, 2003; Chen, 2006; Eder *et al.*, 2010; Maringe and Carter, 2007; Mazzarol and Soutar, 2002; Yang, 2007). The quality of teaching, reputation of the institution and ease of the admission process were also found to be major factors in international students' decisions to study abroad (Maringe and Carter, 2007; Chen, 2007; Wilkins and Huisman, 2011). Lastly, environmental factors such as climate, English-speaking environment, safety and study environment have also been discussed in multiple studies as factors that could affect students' decision making (Chen, 2007; Binsardi and Ekwulugo, 2003). This suggests that factors related to the host country, institutional factors, economic factors, environmental factors and recommendation of family and friends are the main drivers for students' decisions when choosing abroad study destination.

Since this research focuses on Finland as the study context, and the respondents have already made their decision to study in Finland, the aim is to evaluate which of the aforementioned factors have acted as pushing factors and influenced the students' decisions to choose Finland. In addition, the challenges and barriers (e.g. living cost and language barrier) identified above will be conceptualised as a pushing factor forcing students to leave Finland after graduation. As a null hypothesis ( $H_0$ ), we state that the pull and push factors do not have a significant influence in the students' decision making, and in the following the alternative hypotheses will be formulated. This research suggests that the aspects of the host country (Finland), such as, education system, job opportunities and prospect of living have a direct impact on students' decision to study abroad. These aspects may serve as pull factors that attract students to a particular country (e.g. Finland) and influence their decision to study there. Thus, we hypothesis:

*H1.* Factors related to the host country positively affect students' decision to choose Finland as a study destination

This research suggests that institutional aspects such as its reputation, accreditation, quality of education, infrastructure and facilities have a direct impact on students' decision to study abroad (Finland). These factors may serve as pull factors that attract students to a particular institution and influence their decision to study there. A well-known and reputable institution with high-quality education and resources may be more appealing to students compared to an institution with less prestige or fewer resources. Thus, we hypothesis:

*H2.* Factors related to the institutional aspects positively affect students' decision to choose Finland as a study destination.

This research suggests that the economic factors in the host country has a direct impact on students' decision to study abroad. The cost considerations, including tuition fees, living expenses and the availability of scholarships and financial aid may influence the students'

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decision to choose a certain country as their destination to study. High cost of study in a certain country may deter students from choosing it as their destination, while a country with lower cost of study (tuition fees) or more financial aid opportunities (working during study) may be more attractive to students. Thus, we hypothesize:

*H3.* Factors related economic positively affect students' decision to choose Finland as a study destination.

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This research suggests that the environment of the host country has a direct impact on students' decision to study abroad. The environment includes factors such as acceptance and use of English language, the culture, lifestyle, safety and climate, which may attract or deter students from choosing a particular country as their destination to study. For example, a country with a different culture and lifestyle may be an attractive destination for students who want to experience a new culture. Thus, we hypothesize:

*H4.* Factors related to environment positively affect students' decision to choose Finland as a study destination.

This research suggests that the recommendations of others, such as family, friends, peers, or experts have an impact on students' decision to study abroad. Personal recommendations can provide valuable information and insights about the host country, institution and overall study abroad experience, which can influence students' decision. A positive recommendation from someone who has previously studied abroad can give students more confidence in their choice and make the host country or institution more attractive to them. On the other hand, a negative recommendation may discourage students from choosing that particular destination. Thus, we hypothesize:

*H5.* Factors related to others such as recommendation of family and friends positively affect students' decision to choose Finland as a study destination.

## *2.2 Push factors*

International students typically report lower levels of social happiness, a sense of belonging, respect on campus and that student relationships play a big role in how much an international student feels like they belong at the university (Van Horne *et al.*, 2018). Lee (2006) also discussed the issue of racial discrimination, which is known as a "push" factor for students encountering in the host country. Additionally, keeping up with the academic standards and procedures of the host country was a challenge for international students from Asia, which made it tough for them to, e.g. complete assignments and reports (Campbell and Li, 2007). Moreover, international students, particularly those whose first language is not English, may experience socio-linguistic difficulties while taking courses (Yan and Berliner, 2013; Zhou *et al.*, 2011). Chan (2013) posits that these difficulties can lead to feelings of embarrassment and negative perceptions among non-fluent international students, who may be judged by fluent, native speakers.

Additionally, studies regarding the challenges faced by international students in the UK have identified some barriers and challenges that may lead to students leaving the country upon completion of their studies. These include homesickness, feelings of isolation, stress and depression, cultural shock and dietary issues (Alloh *et al.*, 2018; Cowley and Hyams-Ssekasi, 2018). The challenges including cultural adjustment (Alloh *et al.*, 2018; Cowley and Hyams-Ssekasi, 2018), language barriers (Yan and Berliner, 2013; Zhou *et al.*, 2011), racial discrimination (Ramia, 2021) and lack of financial assistance (Harman, 2003) have also found to impact students' decision when deciding to study abroad or during their stay in the host country.

This study suggests that the challenges and barriers in the host country may have a direct but negative impact on students' decision to stay in the host country (Finland) upon

completion of their studies. For example, students who are not fluent in Finnish or have difficulty adapting to the Finnish culture may be less likely to choose to stay in Finland. Additionally, if students hear of others who have struggled with administrative issues, such as obtaining a student visa or finding housing, they may also be less likely to choose to stay in the country. Thus, we hypothesize:

*H6.* Challenges and barriers associated with the host country have a direct negative effect on students' decision to stay in the country upon completion of their studies.

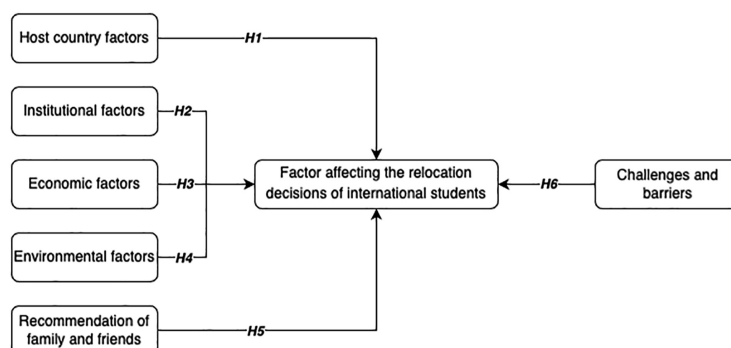
A conceptual model was created to understand the factors affecting international students' choice of study destination or leave the host country (i.e. relocation decisions), depicted in Figure 1. An online survey questionnaire was then developed and distributed to gather data from students studying in Finland.

### 3. Research methodology

Partial least squares structural equation modelling (PLS-SEM) was used to test the model. We used PLS-SEM as it offers a flexible and robust approach to test relationships and hypotheses, particularly in situations where sample size is small, and the conceptual model (see Figure 1) is complex. This approach aimed to go beyond conventional qualitative research by conducting an empirical study and evaluating a theoretical model grounded in the push-pull factor framework. The research model encompasses one push factor (challenges and barriers) and five pull factors. The online survey questionnaire consisted of two sections: a section to collect demographic information such as age, gender, nationality, educational level and a section to measure the items forming the seven constructs in the research model. It is worth mentioning that the survey only targeted students currently living in Finland.

#### 3.1 Measures and data collection

The pull factors were measured using five sub-dimensions, factors related to the host country, institutional factors, economic factors, environmental factors and factors related to others such as recommendation of family and friends. The survey items were adopted from Mazzarol and Soutar (2002) and Kruanak and Ruangkanjanases (2014), if needed, the items were slightly modified to fit the context of the study. Additionally, to understand how the push factor (challenges and barriers) may influence international students' decision to leave the country, three main aspects were considered: personal, academic and social (Alloh *et al.*,



Source(s): Authors' own work

Figure 1.  
Conceptual model



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2018; Yan and Berliner, 2013). In total, 28 items were used to measure the pull factors, and 11 items were related to challenges (push factors), and five items were used to measure the dependent variable, labelled as “factors affecting the relocation decisions of international students” see Appendix. The items were rated on a 5-point Likert scale with the general question “To what extent the following statements had influenced your decision to study in Finland?”, where 1 indicated “no effect” and 5 indicated “major effect”. Respondents were also asked to select the top three challenges from a list of challenges that they believed had the greatest impact while studying in Finland. Furthermore, the survey included two open-ended questions to allow respondents to mention any other concerns. The survey was distributed to all international students in Finland via an online link for convenience and data was collected from October 15th to December 4th, 2022. The sample for the survey was limited to international students who were in Finland for at least one semester and excluded those who were only visiting for a shorter period of time. Out of the 771 individuals who opened the survey, 207 began filling out the survey, and of those, 195 provided useable responses. As an incentive, participants were given the opportunity to win 10 movie tickets, and 5 respondents were chosen at random to receive two movie tickets.

#### 4. Data analysis and descriptive results

In the following, we provide an overview of the demographic information of the respondents, the measurement model and conceptual model results. Of the respondents, 129 (66.2%) were females, 58 (29.7%) were males, 4 (2%) indicated others and 4 (2.1%) preferred not to indicate their gender. The age range was mostly (1) 18–20 ( $n = 7$  (3.6%)), (2) 21–30 ( $n = 138$  (70.8%)), (3) 31–35 ( $n = 22$  (11.3%)), (4) over 35 years old ( $n = 25$  (12.8%)), and 3 respondents did not indicate their age. When we asked to indicate your highest degree obtained, 85 (57.9%) indicated a bachelor’s degree, 99 (50.8%) indicated a master’s degree, three (1.53%) had a PhD, eight (4.1) indicated that non-degree studies. Of the respondents, 54 (27.7%) were married or were in a domestic relationship, 138 (70.8%) were single (never married), and the rest were either indicated divorce, or did not want to reveal their marital status. The respondents’ country of origins were from: (1) Belgium, Cameroon, Czech Republic, Denmark, Dominican Republic, Ecuador, Estonia, Georgia, Guatemala, Honduras, Hong Kong, Hungary, Iceland, Ireland, Korea, Malawi, Malaysia, Peru, Portugal, Singapore, Slovakia, South Africa, Ukraine, UK, Zambia and Zimbabwe, (2) Austria, Egypt, Ethiopia, Ghana, Kazakhstan, Mexico, Slovenia and Thailand, (3) Japan, Pakistan, Philippines, Russian and Turkey, (4), Brazil, Canada, Greece, Italy, Poland, Romania, Spain and United States, (6) Azerbaijan, China, Finland, France and Nigeria, (8) Iran, Nepal and Vietnam, (9) Sri Lanka, (14) Bangladesh and Germany, (15) India.

##### 4.1 Measurement results: validity and internal reliability

The values of factor loadings were used to estimate the strength of association between an indicator variable (e.g. a measure or questionnaire item) and a latent variable (e.g. a construct or factor). Factor loading of 0.70 or greater indicates a strong association between the indicator variable and the latent variable (Bollen, 1989; Kline, 2015). In this study, some items were removed from further analysis as they did not meet the threshold of 0.70. The reliability of the data, internal consistency and construct validity were evaluated through Cronbach alpha, Composite Reliability (CR) and Average Explained Variance (AVE). Cronbach’s alpha is a measure of the reliability of a data, and it ranges from 0 to 1, with higher values indicating greater reliability, and the cut-off value is 0.70 (Hair *et al.*, 2012). The values for all constructs were above the recommended threshold, with 0.946 for the dependent variable, as highest, and 0.686 for the economic factors as the lowest Cronbach’s alpha. In addition, CR value of

0.70 or higher is an acceptable level of internal consistency. As shown in Table 1, the lowest CR value was 0.811 for the economic level, and 0.961 for the dependent variable as the highest. Moreover, AVE is a measure of the construct validity of a multi-item, and it is used to measure the degree to which a scale measures a single underlying construct (Hair *et al.*, 2011). An AVE value of 0.50 or higher is an acceptable level of construct validity (Hair *et al.*, 2012). The lowest AVE value was 0.522 for the economic factors, and the highest was 0.863 for the dependent variable.

Moreover, convergent validity refers to the extent to which a measure correlates with other measures that are expected to be related to it (Fornell and Larcker, 1981; Hair *et al.*, 2011). Convergent validity is established by demonstrating a high correlation between the scores obtained from the test and scores from other measures that are believed to measure the same construct (Henseler *et al.*, 2015). To determine the distinctness of the constructs and the discriminant validity of the data, the Fornell and Larcker (1981) criterion was applied, as shown in Table 2.

Constructs	Indicator	Factor loading	Cronbach's alpha	CR	AVE
Challenges and barriers	CHA1	0.698	0.691	0.829	0.621
	CHA2	0.825			
	CHA3	0.890			
	CHA4	0.811			
	CHA5	0.729			
	CHA6	0.895			
	CHA7	0.838			
	CHA8	0.867			
Economic factors	ECONO1	0.842	0.686	0.811	0.522
	ECONO2	0.766			
	ECONO3	0.683			
	ECONO4	0.698			
Environmental factors	ENVI1	0.793	0.795	0.866	0.619
	ENVI2	0.749			
	ENVI3	0.831			
	ENVI4	0.772			
Factors related to the host country	HOST1	0.885	0.871	0.908	0.665
	HOST2	0.895			
	HOST3	0.838			
	HOST4	0.722			
	HOST5	0.721			
Institutional factors	INST1	0.814	0.866	0.908	0.712
	INST2	0.839			
	INST3	0.891			
	INST4	0.829			
Factors affecting the relocation decisions of international students	SDPPI1	0.941	0.946	0.961	0.862
	SDPPI2	0.936			
	SDPPI3	0.873			
	SDPPI4	0.961			
Recommendation of family and friends	RECO1	0.836	0.811	0.872	0.631
	RECO2	0.819			
	RECO3	0.786			
	RECO4	0.733			

**Note(s):** Composite reliability (CR); Average explained variance (AVE)

**Source(s):** Authors' own work

**Table 1.**  
The reliability of the data, internal consistency, and construct validity

Furthermore, we assessed the discriminant validity of the construct by utilising the Heterotrait-Monotrait ratio (HTMT) method. HTMT is an alternative method for determining discriminant validity and values, according to the recommendations of [Henseler et al. \(2015\)](#), were below the recommended threshold of 0.85. This indicates that the discriminant validity can be established for the research measurement model and the constructs, as shown in [Table 3](#).

By calculating the variance inflation factor (VIF) values, we assessed multicollinearity in our proposed regression model. According to [Hair et al. \(1998\)](#) and [Petter et al. \(2007\)](#), a VIF value of 3.3 is considered the minimum acceptable level, and value greater than 10 is considered an issue of multicollinearity. The VIF values in our data showed no issues as the lowest value was 1.181, and the highest value was 9.661, indicating that there was no multicollinearity problem in our data.

In addition, a common method bias (CMB) was evaluated to determine if there was any bias resulting from the measurement method. This was done using two different approaches, (1) Harman’s one-factor test ([Podsakoff and Organ, 1986](#)), and (2) the common latent factor (CLF) technique, as suggested by [Podsakoff et al. \(2003\)](#) and [MacKenzie and Podsakoff \(2012\)](#). The outcome of the Harman’s one-factor test revealed that none of the constructs accounted for more than 50% of the variance. In the second approach, the CLF method was evaluated by comparing the difference in chi-square values between an unrestricted model and a model where all connections were constrained to zero. The CLF test results indicated that there was no impact of CMB on any of the relationships in the model.

4.2 Structural results

As depicted in [Figure 2](#), the SEM results show that 43% of the variance ( $R^2$ ) in the dependent variable was explained by the model. Since we used PLS-SEM, it is not feasible to present the

**Table 2.**  
Discriminant validity

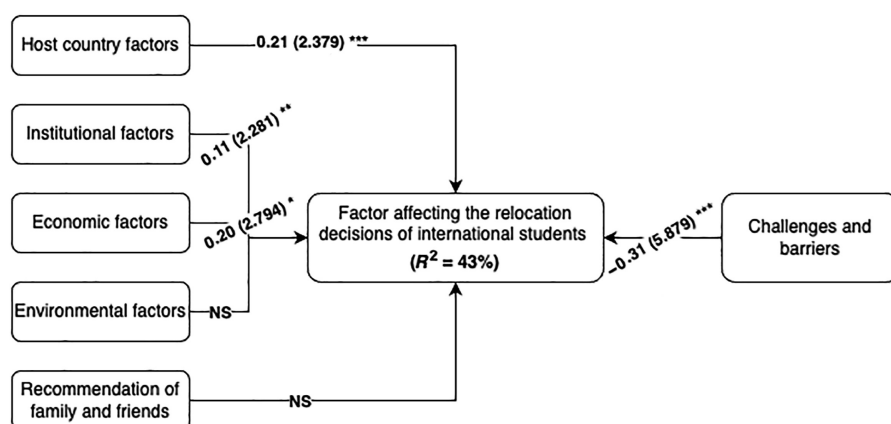
	HOS	CHA	ECO	ENV	INS	SDPPI	REC
Factors related to the host country	0.816						
Challenges and barriers	-0.153	0.787					
Economic factors	0.622	-0.067	0.723				
Environmental factors	0.581	-0.171	0.630	0.786			
Institutional factors	0.593	-0.104	0.545	0.561	0.844		
Factors affecting the relocation decisions of international students	0.509	-0.371	0.483	0.486	0.439	0.928	
Recommendation of family and friends	0.487	0.007	0.511	0.465	0.552	0.323	0.795

Source(s): Authors’ own work

**Table 3.**  
Discriminant validity: Heterotrait-Monotrait ratio (HTMT)

	HOS	CHA	ECO	ENV	INS	SDPPI	REC
Factors related to the host country							
Challenges and barriers	0.403						
Economic factors	0.796	0.373					
Environmental factors	0.699	0.328	0.847				
Institutional factors	0.679	0.213	0.692	0.669			
Factors affecting the relocation decisions of international students	0.556	0.357	0.597	0.553	0.474		
Recommendation of family and friends	0.546	0.221	0.676	0.562	0.611	0.351	

Source(s): Authors’ own work



Source(s): Authors' own work

Figure 2.  
The structural results

model fit results. However, the Standardised Root Mean Square Residual (SRMR) can be used as an indicator of model fit. The SRMR represents the discrepancy between the observed correlation and the correlation matrix implied by the model, with a recommended threshold of less than 0.10 (or 0.08 in a more stringent version) (Hair *et al.*, 2012). In our analysis, the SRMR value was (0.086). Subsequently, to determine the significance of the estimates (t-statistics) in the path model, a bootstrap analysis with 5,000 resamples was conducted.

The results from the SEM analysis indicated that the null hypothesis ( $H_0$ ) is rejected, as the results show that the relationship between factors related to the host country and dependent variable was positive and statistically significant ( $\beta = 0.21$ ,  $t = 2.379$ ,  $p < 0.001$ ). Therefore, the first hypothesis ( $H_1$ ) was supported by the model. The direct path relationships between the institutional factors ( $\beta = 0.11$ ,  $t = 2.281$ ,  $p < 0.01$ ) and the economic factors (such as the likelihood of obtaining a high-paying job) ( $\beta = 0.20$ ,  $t = 2.794$ ,  $p < 0.05$ ) to the dependent variable were positive and statistically significant. Therefore, hypotheses 2 and 3 were supported by the model. The SEM results revealed that the relationships between the environmental factors (e.g. acceptance and use of English language in the host country) and recommendation of family and friends (e.g. I decided to study in Finland because my family, relatives, friends recommended me to do so) were not statistically significant, indicating that these two factors have no influence on the dependent variable. Therefore, hypotheses 4 and 5 were not supported by the model. The lack of significant influence from environmental factors could be attributed to other dominant factors such as the reputation and quality of educational institutions, career development opportunities, economic considerations, or personal preferences that take precedence over environmental considerations in their decision-making process. Moreover, a plausible explanation might be the fact that family and friends may lack first-hand knowledge of the country (Finland) and its distinct living and working environment including country's educational system, cultural environment and career prospects. Finally, the results revealed that the challenges and barriers had a negative effect ( $\beta = -0.31$ ,  $t = 5.879$ ,  $p < 0.001$ ) on the dependent variable. In other words, the challenges students faced during their studies in Finland have a negative influence on their decision to stay in the country upon completion of their studies. Therefore, the sixth hypothesis ( $H_6$ ) was supported by the proposed model.

To assess the potential influence of personal-level challenges in Finland, our survey incorporated specific questions "Which one of the following might have/had the most

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influence on your decision to leave Finland after your graduation?" targeting this aspect to gain a deeper understanding of the issue. Participants were specifically requested to identify the top three challenges and barriers they faced during their studies in Finland. This approach allowed us to gain additional information about the possible influence of these factors on their decision-making process regarding post-graduation plans, in addition to testing the impact of challenges within the context of our research conceptual model. The most cited challenges were (1) difficulty finding a job (119 participants), (2) fear of not finding a job (64 participants) and (3) lack of sufficient knowledge of the Finnish language (63 participants). These were the primary concerns among the respondents when studying in Finland. The less important, but still significant, aspects were bad experience of social interaction (four participants) and cultural understanding, social integration (10 respondents). In addition, students indicated "*difficulty in being accepted by the Finnish society and adapting to Finnish culture and social life*", "*lack of opportunities for the student's spouse*", "*high cost of living and difficulty in making friends*", "*barriers to overall wellness, such as the darkness in winter and bureaucracy*" and "*socialisation with locals and Finnish prototype*" as the potential challenges and barriers they faced while studying in Finland.

## 5. Discussion

Prior studies have investigated factors that impact international students' decision when choosing abroad study destination. The results show that the main pull factors are the cost of living, financial aid, scholarships, academic reputation and the quality of education (Li and Bray, 2007; Shanka *et al.*, 2006; Mazzarol and Soutar, 2002). While the main push factors were the opportunity to learn a new language, personal and professional development and the chance to gain international experience (Briggs and Wilson, 2007; Lam *et al.*, 2011). These studies demonstrate that the decision of international students when choosing abroad study destination is influenced by a combination of push and pull factors.

In this research, the push-pull factor theory was employed to find the major factors affecting the relocation decisions of international students studying in Finland. The results indicate that the main factors, referred to as pulling factors, are (1) factors related to the host country such as the quality of living and life, (2) economic factors and cost aspects such as tuition fees and living costs and (3) higher education institutional factors such as the quality of education. These factors directly and positively affect students' decision to choose Finland for their studies. As per pushing factors, it was found that challenges and barriers related to living and studying in Finland have a direct but negative impact on their decision on the post-graduation intentions. These challenges were identified as significant and related to issues such as language barriers, the difficulty of adapting to the Finnish culture and social life, limited job opportunities after graduation, high cost of living and accommodation, lack of support and resources for career development, bad experience of social interaction and difficulty in obtaining a residence permit for post-graduation job search.

In addition, the findings suggest that environmental-related aspects and factors related to others such as recommendations from family and friends do not significantly impact international students' decision to choose Finland as the study destination. A possible explanation is that these factors may be overshadowed by other primary considerations, such as the quality of education and the possibility of high-salary career prospects, which are regarded as more crucial by students. Additionally, Finland's reputation as a safe and stable country with a high standard of living may also play a more important role in attracting international students. Therefore, it can be inferred that these factors may be seen as less important to international students when compared to other factors. Overall, it can be concluded that the quality of education, cost of living and quality of life are the major factors in attracting international students to Finland.

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Moreover, the challenges related to, e.g. language barriers, difficulties in finding a job and social integration deter some students to stay in the country after graduation. These challenges can make it difficult for international students to fully integrate into Finnish society and find suitable employment opportunities after graduation and that may lead to leave the country. To address these challenges, the Finnish HEIs can address these issues by, e.g. providing cultural and language classes for international students to help them adapt to the Finnish culture and society and creating more opportunities for the spouses of international students, such as providing language classes and job opportunities. Moreover, by updating the current policies, Finnish higher education and other involved stakeholders such as international house centres can address the challenges by (1) offering financial assistance for international students to help with the high cost of living and making friends, (2) addressing the issue of darkness in winter by providing resources for mental health and wellness support and (3) encouraging socialisation with locals and Finnish students through organised events and activities.

## 6. Conclusion, limitations and future work

This research not only highlights the novelty of the theoretical approach adopted but also underscores the importance of considering the multifaceted nature of push and pull factors within the higher education context. By offering a comprehensive analysis of both positive (the quality of education, career opportunities, the cost of living and tuition fees) and negative factors (language barriers, difficulty of finding jobs) associated with the destination country (Finland), this research theoretically contributes to the advancement of knowledge in the field of international student mobility and provides valuable insights for stakeholders in the pursuit of fostering a thriving international student community in Finland. Moreover, the findings of this research show that international students consider the employment prospects in the host country after graduation and that countries with a reputation for academic excellence and well-established universities are more attractive to international students.

The findings partly support earlier results in the literature that show comparable quality of education, affordability of living and education, language and culture of the host country, scholarship opportunities, geographical proximity, recommendations by family or friends, and ethnic affinities seem to be very prominent in international students' decisions to study abroad (Istad *et al.*, 2021; Özoğlu *et al.*, 2015). Moreover, the findings differ from previous studies in the literature such as Jiani (2017), and Özoğlu *et al.* (2015), who suggested that environment and recommendations from family and friends play a role in the decision-making process of students when choosing a country for higher education.

As per practical implication, we suggest that policymakers prioritise visa and immigration policies as well as employability of skilled international, given the significant influence they have on international students' decisions. As our findings indicate that environmental-related aspects and recommendations from family and friends did not have a significant impact on international students' decision to choose Finland as their study destination. We suggest the resources, which are allocated to these areas may be shifted to focus on other factors, such as enhancing the quality of education and providing better career opportunities. For example, HEIs in Finland should focus on promoting the quality of education and career opportunities to attract international students. Universities in Finland should also focus on providing information about cost of living, tuition fees and financial aid opportunities to attract more international students. Finnish universities should develop marketing strategies that target students who are looking for a safe and stable country with a high standard of living and focus on providing support and services to international students and their families to help them adjust to their new surroundings and make the most of their study abroad experience.

In addition, the Finnish Ministry of Education and Culture can also focus on providing more information about the country, culture, immigration policies, and Finnish language to attract international students, and invest in promoting Finland as a destination for higher education to students in other countries. The study results provide valuable insights for practitioners and decision makers in the field of higher education to understand what are the key factors that influence international students to choose Finland as a study destination. With this knowledge, they can develop more effective strategies to attract international students and retain skilled internationals.

This paper also provides insights for leadership, management and governance in HEIs. For example, regarding the leadership, institutional leaders can enhance the factors (host country's quality of life, academic excellence and economic) that attract international students and market them effectively to attract more international students by investing in improving student accommodation, developing partnerships with leading employers and promoting the academic reputation of the institution. As per management, career development activities like job fairs, scholarships and internships are important for attracting international students. Therefore, HEIs should invest in robust career services that provide support for international students to succeed in the host country's job market. Finally, as per governance, the findings show that unfamiliarity with culture and language barriers negatively impacts international students' inclination to remain in the country upon completing their studies. As such, institutions should develop policies and practices to help international students integrate into the host country's culture and language by offering language classes, cultural training programmes, mentorship opportunities and social events that facilitate interaction with domestic students.

As with any study, there are certain limitations that should be taken into consideration when interpreting the findings. Firstly, the generalisability of the findings might be a potential limitation. The findings of this research may not be generalised to all international students in Finland or to other countries. Therefore, it would be beneficial to replicate this study in other countries or with different international students to determine the extent to which the findings can be generalised. Also, the issue with sample size should be noted. The sample size of the study may not be large enough to accurately represent the entire population of international students in Finland. A larger sample size would increase the power of the study and increase the generalisability of the findings. Secondly, factors used to investigate students' decision to choose abroad study destination should be noted, as the current study may have only considered a limited number of factors that influence international students' decision to choose their study destination. Other factors, such as language proficiency or personal interest in the culture, may also play a role and should be considered in future research. Thirdly, a longitudinal study following students decision-making process over time would be beneficial in understanding the dynamic and complex nature of the decision-making process.

Lastly, we suggest comparing the factors that influence international students' decision to choose Finland as a study destination with other study destinations, such as the US, other Nordic countries, Canada, or the UK, as it may provide a more comprehensive understanding of the factors that influence students' choice of study destination. Furthermore, since the findings show that geographical and cultural proximity do not influence the decision to select a study destination (Finland), it is recommended that future studies collect a larger sample of data to investigate the extent to which geographical and cultural proximity impact students' decision-making regarding their choice of study destination. Overall, further research could include a larger sample size, consider a broader range of factors, replicate the study in other countries and conduct a longitudinal or qualitative study to gain more insights.

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**Notes**

1. <https://www.canada.ca/en/immigration-refugees-citizenship/corporate/publications-manuals/report-plans-priorities/2013-2014.html>
2. <https://www.international.gc.ca/education/report-rapport/strategy-strategie-2014/index.aspx?lang=eng>
3. <https://migri.fi/en/-/rules-on-international-students-moving-to-finland-relaxed>
4. <https://erudera.com/news/finland-welcomes-record-number-of-international-students/#:~:text=Data%20show%20that%207%2C060%20applicants,permit%2C%20Erudera.com%20reports>

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## Appendix

### Host country aspects

To what extent the following statements had influenced your decision to study in Finland? (1 represents "No affect" and 5 represents "Major affect").

- (1) Prospect of living in Finland after graduation influenced my decision.
- (2) I decided to study in Finland because Finland offers high quality education.
- (3) I decided to study in Finland because I found the visa processing/requirements of Finland to be lot easy.
- (4) Geographic proximity between Finland and my home country influenced my decision.
- (5) I decided to study in Finland because I already knew much about the country.
- (6) It was easy to access information about Finland.
- (7) I decided to study in Finland because of the presence of large number of international students.

### Institutional aspects

To what extent the following statements had influenced your decision to study in Finland? (1 represents "No affect" and 5 represents "Major affect").

- (1) My decision to study in Finland was influenced by the quality of the teaching and research infrastructure in universities in Finland.
- (2) I decided to study in Finland because Finnish qualification/degree is highly recognised.

- (3) I decided to study in Finland because there are many reputed universities/institutions in Finland.
- (4) The availability of varieties of courses in the universities in Finland influenced my decision.
- (5) I decided to study in Finland because universities have relatively easy/flexible admission process.

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### **Economic aspects**

To what extent the following statements had influenced your decision to study in Finland? (1 represents “No affect” and 5 represents “Major affect”).

- (1) I decided to study in Finland because it has reasonable tuition fees.
- (2) My decision to study in Finland was influenced by the cost of living.
- (3) Availability of employment opportunities after graduation in Finland influenced my decision to study in the country.
- (4) Availability of scholarships/assistance influenced my decision to study in Finland.
- (5) The possibility of working during and/or after my studies influenced my decision to study in Finland.

### **Environmental aspects**

To what extent the following statements had influenced your decision to study in Finland? (1 represents “No affect” and 5 represents “Major affect”).

- (1) Acceptance and use of English language influenced my decision to study in Finland.
- (2) I decided to study in Finland because it is an inclusive country.
- (3) I decided to study in Finland because it has a good/comfortable (physical) climate and lifestyle.
- (4) I decided to study in Finland because I wanted to have new social and cultural experience.
- (5) Finland being a safe country influenced my decision to study here.
- (6) Finland has a studious environment, and it influenced my decision to study here.

### **Family and friends’ recommendation**

To what extent the following statements had influenced your decision to study in Finland? (1 represents “No affect” and 5 represents “Major affect”).

- (1) I decided to study in Finland because my family or relatives recommended me to do so.
- (2) I decided to study in Finland because my friend(s) or teacher(s) recommended me to do so.
- (3) I decided to study in Finland because my family (relatives) or friends study or have studied here.
- (4) I decided to study in Finland because my family (relatives), or friends live here.
- (5) I decided to study in Finland because I was recommended by my teachers/former students at the host university.

### **Challenges and barriers**

To what extent the following statements might influence your decision to leave Finland after your studies? (1 represents “No affect” and 5 represents “Major affect”).

- (1) Family obligations.
- (2) Not willing to be away from home/family/partners.
- (3) Language (lack of sufficient knowledge of Finnish language).
- (4) Difficulties in finding a job.
- (5) Fear of not finding a job.
- (6) Difficulties in finding/building social networks.
- (7) Discrimination/racism.
- (8) Climate.
- (9) Cultural understanding, social integration.
- (10) Bad experience of social interaction.
- (11) Feeling of social isolation and loneliness.

**Outcome variable** “Factors affecting the relocation decisions of international students”

To what extent you agree with the following statements? (1 represents “totally disagree” and 5 represents “totally agreed”).

- (1) Finland was one of my top choices as a destination country to pursue my academic studies.
- (2) Compared to other European countries, Finland was one of my top choices as a destination country to continue my academic studies.
- (3) Compared to other Nordic countries, Finland was one of my top choices as a destination country to continue my academic studies.
- (4) My decision to choose Finland as a destination country to continue my academic studies was due to lack of other options.
- (5) My decision to choose Finland as a destination country to continue my academic studies was due to extensive research and contemplating.

**Source(s):** [Mazzarol and Soutar \(2002\)](#), [Kruanak and Ruangkanjanases \(2014\)](#), [Alloh \*et al.\* \(2018\)](#), [Yan and Berliner \(2013\)](#)

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