Effect of Mobility, Academic Programme, and Socio-Cultural Adoption on the Innovative Behaviour of International Students: Does Satisfaction Mediate?

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A R T I C L E I N F O	A B S T R A C T

The primary objective of this study is to investigate the impact of factors such as international student mobility, academic programme, cultural exposure, and socio-cultural adaptation on the innovative behaviour of international students. This study is additionally intended to investigate the mediating role of international student satisfaction. This study aims to provide explanations and is conducted using a cross-sectional research design. Data was collected from international students at KSA for this purpose. The data was gathered from a questionnaire that was created based on previous research. A total of 195 responses were received and used for further analysis.

The data was analysed using SPSS. The study's findings indicated that factors such as international student mobility, academic programme, cultural exposure, novelty seeking, and socio-cultural adaptation had a significant impact on satisfaction. Furthermore, satisfaction plays a crucial role in influencing innovation behaviour. Furthermore, the confirmation of the mediating role of international student satisfaction is also evident. This study offers valuable insights for policymakers and academics to inform future research.

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Introduction

The increase in global competition has given rise to knowledge-based economies. To remain competitive in global markets, nations must prioritise investments in innovation, research, training, and education for their students. The innovative behaviour of students is a direct outcome of their dedicated efforts and the resources available to them. Enrolling international students is a significantly more intricate procedure than enrolling domestic students. There are variations between these enrolments in terms of students' backgrounds, economic aspects, and personal attributes (Kistyanto et al., 2022). Due to the various factors at play, students often engage in innovative behaviour, despite its complexity. Students' own autonomous beliefs, sense of agency, and cultural identity, as well as the intercultural knowledge their supervisors provide, all have an impact on how they develop (Farias, Brodin, & Bergström, 2023). There is a limited body of research on the factors influencing international students' research (Fan, Mahmood, & Uddin, 2019).

The innovative behaviour of international students is closely tied to their satisfaction levels, which reflect their perceived value and overall experience (Gao et al., 2022). According to their feedback, students' levels of satisfaction are frequently fluctuating. The educational programme offered in international studies plays a crucial role in fostering satisfaction among international students (Asare-Nuamah, 2017). To ensure satisfaction, the international campuses modify the services they offer in response to student feedback and data. The administration of the university should have a clear understanding of these factors and implement them in their higher education institutes (Ammigan & Jones, 2018).

One crucial aspect of international students' satisfaction is their mobility, as highlighted by Haase, Franco, and Pedro (2020). It is widely regarded as the fundamental core of international relations. The movement of international students has significant and far-reaching political, cultural, and socio-economic consequences. International students play a crucial role in shaping political relations between countries (Beech, 2018). Students migrate from their country of origin to a foreign nation with the intention of acquiring knowledge. If the process of movement between these countries is streamlined, it will facilitate students' transition from their home country to an international university. Hence, it is imperative for the strategists to ensure that the exchange process is streamlined and flexible. If stakeholders can easily interact, it will facilitate smooth student mobility (Bista, Sharma, & Gaulee, 2018).

Additionally, it is worth noting that internationalisation significantly contributes to enhancing the quality and standards of educational programmes (Shayery et al., 2022). The text examines the interplay between systems, institutions, cultures, individuals, and nations. The internationalisation of programmes is crucial for the social, academic, and economic development of a country (Alsharari & Alshurideh, 2020). There are various methods through which programmes at international universities can be globalised. The focus is on international events, organising courses, incorporating international curriculum, facilitating staff, professor, and student exchanges, and publishing research papers abroad. Additionally, the establishment of new campuses in various countries is also considered (Knight, 2011).

In recent decades, there has been a growing interest among researchers and professionals in the field of innovation and creativity, particularly in relation to cross-

cultural differences (Baruah & Paulus, 2019). Attracting students from diverse backgrounds and cultures to a single location is a significant challenge. Students should be exposed to the host country's perspective in order to foster creativity (Soler Pastor, Bobowik, & Benet Martínez, 2022). The student's experience is rooted in the unique aspects of the culture. It is crucial for international students to adapt to their host country due to cultural differences between their home country and the host country. Learning is influenced by socialisation, which is shaped by the local culture in which a student is studying (Wilczewski et al., 2022).

A combination of cultural and social factors shapes the socio-cultural environment. The social and cultural environment has a big impact on students who are in the educational sector (Mavuru & Ramnarain, 2020). Students acquire a wealth of knowledge in an educational setting that is immersed in a diverse socio-cultural context. Historical context, values and beliefs, social norms, and cultural norms all have an impact on students' cultural norms through socio-cultural factors (Mavuru & Ramnarain, 2020). Therefore, to foster satisfaction among international students, it is crucial for universities to gain a comprehensive understanding of these factors. This study aims to investigate the impact of various factors on the innovative behaviour of international students who have moved to universities in the KSA for higher education. These factors include satisfaction, international student mobility, academic programme, international culture, novelty seeking, and socio-cultural adoption. In addition, this study also seeks to explore the potential impact of international student satisfaction as a mediating factor.

Literature Review and Hypotheses Development

International Student's satisfaction and International Student's innovative behaviour

Studies have defined Innovative behavior as "problem recognition and the generation of ideas or solutions, either novel or adopted" (Srirahayu, Sridadi, & Ekowati, 2023). The process facilitates the generation and development of new and modified ideas, thereby enhancing performance. The innovative behaviour of individuals encompasses the completion of feasible tasks, the pursuit of challenging solutions, the exploration of incomplete solutions, the evaluation of various problems, and the identification of issues (Kistyanto et al., 2022). Researchers emphasised the capacity of individuals to generate, produce, and implement valuable and innovative ideas. When it comes to students, innovative behaviour reflects their capacity to assess, create, and execute ideas to achieve desired results. Research has indicated a significant correlation between a student's problem-solving ability and their innovative behaviour (Goldman et al., 2020).

When students study abroad, they encounter various challenges, such as depression, anxiety, and stress. Individuals who engage in innovative behaviour tend to have strong intrinsic motivation, which in turn leads to a willingness to take risks and seek alternatives. This facilitates an individual's ability to improve their decision-making skills (Bathke & Kim, 2016). According to Chang (2018), it is important to prioritise innovative behaviour for students studying abroad. It aids in the efficient and effective completion of tasks.

The satisfaction of students is crucial for achieving success in their academic careers. According to AlAbdulkarim and Albarrak (2015), student satisfaction is determined by

how students perceive their learning activities. The student's satisfaction will be derived from their positive attitude towards learning. However, the student may find the learning environment unsatisfactory. Researchers have characterised student satisfaction as an emotional state that pertains to the level of excitement and joy individuals experience upon achieving their goals (Gökalp & Topal, 2019). Several factors contribute to the satisfaction of international students. The factors mentioned encompass the social environment, the technological environment, and cognitive trust. The social environment pertains to the interactions within the learning climate, while the technological environment focuses on content and functionality features. Lastly, cognitive trust encompasses performance and self-efficacy expectations (Alenezi, 2022). The behaviour of international students demonstrates how social engagement impacts their level of satisfaction.

Abu-Shanab and Subaih (2019) found that satisfaction has a notable impact on innovation. The relationship between satisfaction and innovative behaviour is reciprocal, meaning that the satisfaction of individuals is a significant predictor of innovative behaviour and vice versa. When a student is content, it can enhance their innovative abilities, leading to a further increase in satisfaction levels. In a recent study by Dai et al. (2022), it was found that individual satisfaction plays a crucial role in predicting innovative behaviour among students. There is a clear correlation between student satisfaction and educational innovation. Student satisfaction is influenced by their expectations, perceptions, experiences, and interactions with other stakeholders in the institute. There is a positive correlation between student satisfaction and innovative behaviour (Kanwar & Sanjeeva, 2022).

H1*: International student satisfaction has significant effect on International Student's innovative behaviour.*

International Student Mobility and International Student's Satisfaction

In the context of international students and their studies, the mobility of the student is one of the important factors. Student's mobility focused on the movement of students in international countries after leaving their home country. This process of mobility of students is also termed internationalisation of students (Teichler, 2017). The campuses of international universities are mentioned as small cities where students reach them by using different modes of transport, including air travel and cars (Shields, 2019). Policymakers should prioritise addressing the challenges students face when travelling abroad for educational purposes. Understanding student attributes is crucial for providing transportation services within and outside the university. The objective of the strategy should be to promote the use of public transport over private vehicles in order to encourage students to travel more efficiently (Inturri et al., 2021).

The number of international students studying abroad is steadily rising over time. The increasing number of students who choose to study abroad is the reason behind this trend. High levels of competition at a university can positively impact student satisfaction (Chemsripong, 2019). Students' mobility experiences can have both positive and negative aspects. Possible negative consequences can encompass feelings of anger, hostility, and anxiety. However, it is worth noting that mobility can also lead to positive outcomes, such as increased happiness and optimism (McKeering, Hwang, & Ng, 2021). According to research by Ammigan and Jones (2018), student mobility may have an impact on their level of satisfaction. For students, the decision to study abroad can be quite challenging.

Adjusting to a new culture and social environment can be challenging for students, leading to increased feelings of anxiety, depression, and isolation. Students may develop unhealthy habits such as alcohol consumption and smoking. Students may experience difficulties sleeping, increased fatigue, and a loss of appetite (Faris et al., 2021). The various issues stemming from mobility can potentially lead to student dissatisfaction. However, when students effectively manage these factors, it can have a positive impact on their satisfaction (Odero et al., 2020). In a similar vein, Nilsson and Stålnacke (2019) further substantiated the positive correlation between student mobility and satisfaction levels.

H2: *International student Mobility has significant effect on International Student's satisfaction.*

Internationalizing Academic Program and International Student's satisfaction.

The concept of an international higher education level academic programme is defined as the incorporation of an international, intercultural, or global aspect into the purpose, functions, or delivery of postsecondary education (Costa & Canen, 2021). International universities offer academic programmes to establish a strong reputation and global presence, resulting in the production of highly marketable graduates (Jones & Wang, 2023). Consequently, the university's appeal to international students has increased, leading to the generation of innovation and profit. The international academic programme prioritises the necessary practices, ideas, and input for international students. In addition, a precise and scholarly approach is necessary for their realisation. The policy on internationalising academic programmes consists of six key components. The components encompass community involvement for social integration, governance and autonomy, research and development, academic programme development, staff mobility, and student mobility (Munusamy & Hashim, 2019). Internationalising higher education is of utmost importance. The process of globalisation offers numerous advantages to countries. Furthermore, it offers advantages in terms of enhancing the quality of research and education for educational institutions, thereby contributing to the achievement of economic objectives.

In a recent study conducted by Alshuaybat (2021), it was discovered that the implementation of academic programmes and the provision of advisory services to students resulted in a notable increase in student satisfaction. Therefore, the students' career growth has also improved. Various factors that contribute to the satisfaction of international students in academia include the reputation and image of the university, as well as the teaching methods and programmes offered (El-Hilali, Al-Jaber, & Hussein, 2015). The range of programmes available has a significant impact on student satisfaction, which in turn affects student achievements.

The significance of student satisfaction and its connection to academic programmes has been highlighted in several studies (Azam, 2018). It has been noted that the provision of high-quality education through academic programmes serves as a marketing tool for the university. The agenda of internationalisation is realised (Giner & Rillo, 2016). Through the integration of various elements, an organisation can establish itself as a premier institution offering top-tier education. Research indicates that the internationalisation of academic programmes is a significant factor in determining the satisfaction levels of students studying in foreign universities (Amzat et al., 2023).

H3: *Internationalizing Academic Program has significant effect on International Student's satisfaction.*

International Culture & novelty seeking and International Student's satisfaction.

Previous research has provided a definition of culture as the collection of tangible and intangible values that have been created throughout history and social development with the purpose of being passed down to future generations (Nilson & Thorell, 2018). The culture has a positive impact on the internationalisation of students (Lapina, Roga, & Müürsepp, 2016). However, there are individuals who possess a strong inclination towards exploring novel experiences and circumstances. This behaviour is commonly referred to as novelty-seeking behaviour exhibited by the individual. It serves as a driving force for individuals to seek out new experiences and information (Nguyen, Nguyen, & Le, 2020). It is a fundamental aspect of motivational behaviour. In literature, the significance of novelty seeking lies in its influence on a student's past experiences and current circumstances.

International students encounter various challenges when they relocate to another country. These issues encompass stress and challenges in adaptation. Students may also encounter the challenge of stress, which can negatively impact their academic performance (Mesidor & Sly, 2016). The students' social lives may suffer due to a lack of focus on academic tasks. If international students encounter challenges in adapting to new cultures and struggle to navigate these situations, it can have a detrimental impact on their satisfaction and potentially result in them discontinuing their degree (Kristiana et al., 2022).

The cultural novelty is crucial for students to adjust to new courses and countries. International students must adapt to their new surroundings in foreign countries. Hence, students must adjust to the evolving cultural landscape. Cultural differences have an impact on students' wellbeing and adjustment, both subjectively and objectively (Wilczewski & Alon, 2023). Thus, cultural differences have a positive impact on student satisfaction. Pirson, Langer, and Zilcha (2018) study discovered a link between cultural differences and new students' levels of satisfaction. In a recent study conducted by Nguyen et al. (2020), it was found that cultural diversity among students, including differences in language, values, and background, has a significant impact on student satisfaction.

H4: *International Culture & novelty seeking has significant effect on International Student's satisfaction.*

Socio-cultural Adoption and International Student's satisfaction

International students aspire to receive a high standard of education when they relocate to another country. Student interaction occurs during collaborative study sessions. Students joining international universities come from diverse backgrounds. The attitude of students, various perspectives, and shared challenges collectively impact the quality of life (Temizkan, 2022). Students studying at international universities must acquire the skill of negotiation. Conflicts may arise among students due to cultural, religious, and ethnic differences. Students encounter cultural differences due to their diverse cultural backgrounds in comparison to the host country's culture. The adaptation of social and cultural factors relies on the unique characteristics of the students (Güzel & Glazer, 2019). Students studying abroad must reside in a foreign country for an extended period.

Students may encounter challenges when navigating foreign cultures, including issues related to security, religion, education, financing, social interaction, cultural differences, and academic development. A foreign language can pose challenges for certain students (Yang, 2023). International students must adapt to the academic environment at their universities. Students' exposure to different cultures may cause stress, which can have a negative effect on their educational experience (Finn, Mihut, & Darmody, 2022).

Furthermore, cultural diversity enhances the learning experience of students. The motivation of students can be adversely impacted when they encounter challenges in social interactions and cultural aspects while studying abroad. The students' satisfaction is low due to a lack of motivation (Bierwiaczonek & Waldzus, 2016). The adaptation of social-cultural factors involves the development of social skills necessary for navigating daily life in a new culture. This adaptation can have significant impacts on students' emotions, life satisfaction, self-esteem, and overall emotional well-being. According to Yılmaz and Temizkan (2022), the satisfaction of students is likely to improve if they can readily adjust to the social and cultural norms of the host country. There is a clear link between student satisfaction and the social and cultural adaptation of international students (Yerken, Urbán, & Luu, 2022). Hence, hypothesized that:

H5: *Socio cultural adoption has significant effect on satisfaction of international student satisfaction.*
H6: *Satisfaction mediates between mobility and innovative behaviour.*
H7: *Satisfaction mediates between academic program and innovative behaviour.*
H8: *Satisfaction mediates between international culture and novelty seeking and innovative behaviour.*
H9: *Satisfaction mediates between socio culture and innovative behaviour.*

Below is given the research framework developed from in-depth review of literature:
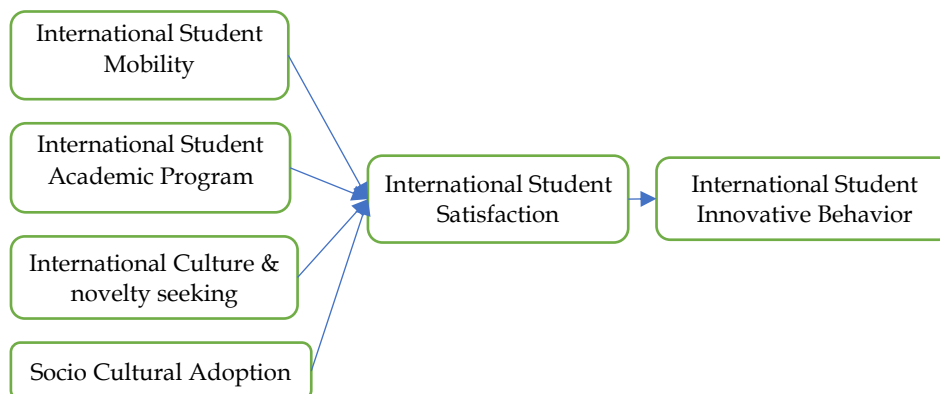

Figure 1*: Framework.*

Methodology

Objectives of Research

The objective of this study was to analyse how factors such as international student mobility, academic programme, exposure to international culture and

novelty seeking, and socio-cultural adoption influence the innovative behaviour of international students. In addition, this study examines the role of international students' satisfaction as a mediator between the independent variables and their innovative behaviour.

Research Design

A descriptive research design was employed to select the sample and gather the data. This section consists of two parts. The first step involves developing the questionnaire, followed by collecting and analysing the data.

Questionnaire Development

The initial step in the quantitative research design involves creating a meticulously crafted questionnaire. The questionnaire for this study consisted of two sections. The first section focused on the respondents' demographics, while the second section included the measurement items for the study variables.

International Student Mobility

A scale with seven items that has shown good reliability and validity in previous studies measures this variable. There are five key points to consider. A Likert scale was used to measure the variable. 1-disagree to 5-agree.

International Students' Academic Program

The variable was measured using a six-item scale that has demonstrated strong validity and reliability in previous research. There are five key points to consider. A Likert scale was used to document the responses of the participants. 1-disagree to 5-agree.

International culture and novelty seeking

International culture and novelty seeking were assessed using items that have been extensively tested for reliability and validity in previous studies. Five points A Likert scale was used.

Socio-Cultural Adoption

The measurement of socio-cultural adaptation was conducted using a scale consisting of twenty-six items, which demonstrated acceptable reliability and validity in previous studies. However, two items were excluded from the analysis due to their low factor loading. The variable was assessed at five distinct points (Likert scale).

International students Satisfaction

The satisfaction of international students was assessed using a five-item scale. Five points A Likert scale was used, having good reliability and validity.

International students' innovative behavior

The inventive behaviour of international students was assessed using a ten-item scale derived from previous research, which demonstrated strong reliability and validity.

Data Collection and Screening

The study employed a cross-sectional research design. The researcher employed a survey-based strategy to gather data. The snowball sampling method was employed to pick the sample. The current study focused on analysing international students from KSA. The researcher convened a meeting with the students and, after obtaining their approval, distributed the questionnaire by email. The responses advised the researcher on data collection and sampling unit selection. To avoid confusion, the researcher explained the questionnaire to each respondent. He distributed 300 questionnaires and received 250 replies from the target audience. After data cleansing and filtering, the researcher found 195 data points worth investigating. The available response rate was 65%.

Data Analysis

The data was subjected to regression analysis using the SPSS software. Stepwise regression was employed for the mediation analysis**.**

Respondents' Demographics

Understanding the behaviour and responses of the target audience requires a thorough analysis of the respondent demographics. Most respondents, 74.6 percent, identified as male, while 25.4 percent identified as female. Approximately 37.3 percent of the respondents fell within the age range of 18 to 28 years. 32.9% of the participants fell within the age range of 28 to 38 years, while 20.3% of the respondents were aged between 38 and 48 years. In addition, 9.5 percent belonged to the age group above 48 years. Out of the respondents, 38.9% were undergraduate students, 33.9% were graduate students, and 27.2% were postgraduate students.

Table 1

Demographics

Variable	Groups	%Age
Gender		
	Male	74.6 %
	Female	25.4%
Age		
	18–28 years	37.3%
	28– 38 years	32.9%
	38– 48 years	20.3%
	> 48 years	9.5%
Education	Undergraduate	38.9%
	Graduate	33.9%
	Postgraduate	27.2%

Correlation

Based on the provided table, there is a notable correlation between the independent and dependent variables. This fulfils the requirement for additional analysis.

	Mean	**SD**	**1**	**2**	**3**	**4**	**5**	**6**
SM	3.08	1.05	**1**					
AP	3.01	1.24	0.26**	**1**				
CN	3.34	1.04	0.24**	0.22**	**1**			
SC	3.21	1.31	0.37**	0.28**	0.35**	**1**		
SS	3.44	1.42	0.25**	0.20**	0.18**	0.16**	**1**	
SI	3.39	1.23	0.13**	0.39**	0.11**	0.25**	0.22**	**1**

Factor Loadings

The variables being studied exhibit factor loading and reliability values that exceed 0.70. Based on the given information, it can be concluded that the data provided is appropriate for the analysis.

Measure	**SM**	**AP**	**CN**	**SC**	**SS**	**SI**
International Students Mobility						
SM1	0.76					
SM2	0.77					
SM3	0.81					
SM4	0.80					
SM5	0.79					
SM6	0.76					
SM7	0.72					
International student academic Program						
AP1		0.76				
AP2		0.78				
AP3		0.75				
AP4		0.80				
AP5		0.81				
AP6		0.70				
International Culture and Novelty seeking						
CN1			0.81			
CN2			0.83			
CN3			0.76			
CN4			0.71			
CN5			0.83			
Socio Culture Adoption						
SC1				0.76		
SC2				0.79		
SC3				0.80		
SC4				0.83		
SC5				0.79		
SC6				0.72		
SC8				0.76		
SC9				0.84		
SC10				0.81		
SC11				0.76		
SC12				0.77		
SC13				0.82		
SC15				0.86		
SC16				0.85		
SC17				0.78		
SC18				0.79		
SC19				0.73		
SC20				0.72		
SC21				0.70		

SC22	0.86
SC23	0.71
SC24	0.86
SC25	0.76
SC26	0.75
SC27	0.89
SC28	0.88
International student satisfaction	
SS1	0.78
SS2	0.80
SS3	0.83
SS4	0.76
SS5	0.82
International student innovative behavior	
SI1	0.78
SI2	0.80
SI3	0.79
SI4	0.78
SI5	0.82
SI6	0.83
SI7	0.79
SI8	0.81
SI9	0.86
SI10	0.79

Model Testing

The researcher used stepwise regression analysis in conjunction with SPSS software to examine the hypothesised model.

	Independent Variable	Dependent Variable	Standardized β	Sig	Adjust R2	T value
1	International Student Mobility		0.52	0.000	0.31	8.32
	International Student Academic Program		0.43	0.000	0.24	5.68
	International Culture and Novelty seeking	International Student Satisfaction	0.48	0.000	0.26	7.29
	Socio-Culture Adoption		0.31	0.000	0.29	6.55
2	International student satisfaction	International student Innovative behavior	0.46	0.000	0.28	4.20

	Independent Variable	Mediator	Dependent Variable	Standardized β	Sig	T value
3	International Student Mobility			0.24	0.000	6.67
	International Student Academic Program	International Student Satisfaction	International Student Innovative behavior	0.19	0.000	4.76
	International Culture and Novelty seeking			0.22	0.000	7.88
	Socio-Culture Adoption			0.14	0.000	4.60

The table above illustrates a significant positive impact of international students' mobility on their satisfaction (β = 0.52; P = 0.00). The academic programme of international students has a significant positive impact on their satisfaction (β = 0.43; = 0.00). The impact of international culture and novelty seeking on international students' satisfaction is found to be statistically significant (β = 0.48; P = 0.00). The adoption of socio-cultural norms has a significant and positive impact on the satisfaction of international students (β = 0.31; P = 0.00). The satisfaction of international students has a positive and significant impact on their innovative behaviour at the university (β = 0.46; P = 0.00).

The satisfaction of international students serves as a positive mediator in the relationship between student mobility and their innovative behaviour (β = 0.24; = 0.00). The satisfaction of students plays a crucial role in mediating the relationship between academic programmes for international students and their innovative behaviour. This relationship is found to be statistically significant (β = 0.19; P = 0.00). The satisfaction of international students plays a significant role in mediating the relationship between international culture, novelty seeking, and the innovative behaviour of international students (β = 0.22; = 0.00). In addition, it is worth noting that the satisfaction of international students plays a significant role in mediating the relationship between socio-cultural adoption and their innovative behaviour (β = 0.14; P = 0.00).

Discussion

International students serve as representatives of their home country. Many students often choose to study abroad for their higher education. When students travel internationally, they may encounter various challenges such as stress, anxiety, and other factors that can affect their academic performance. The innovative behaviour displayed by international students serves as a significant indicator of their academic performance. This study aims to examine the impact of factors such as international student mobility, academic programme, cultural exposure, novelty seeking, and socio-cultural adoption on the innovative behaviour of international students. The study also explores the role of satisfaction as a mediator in this relationship. The study was conducted within the framework of international universities in the KSA. The study's statistical findings indicate that international mobility has a significant positive impact on student satisfaction.

Nilsson and Stålnacke (2019) also reported similar findings in their study. One possible explanation for these findings is that the mobility structure of the students may be highly fluid and interactive. Transitioning to an international university after leaving one's home country can be a challenge for students. The study participants expressed that the university's admission process was comparatively simpler than that of other universities. It is worth considering that the visa application process in their home country was not overly challenging, which may have influenced student satisfaction. The respondents also believe that the university's information on academics and other requirements was accurate. The university administration provided comprehensive information on expenses and accommodations. Ultimately, the university's alumni also offer precise information about the institution. The information provided plays a significant role in determining student satisfaction at international universities.

In addition, the study's findings indicate that the culture and novelty-seeking attitude of the student have a significant positive impact on the satisfaction of international students. The study participants may prefer immersing themselves in different cultural experiences. They appreciate immersing themselves in the cultures of unfamiliar countries. One of the reasons that motivates individuals to pursue admission to foreign universities is their inclination towards exploration. The university students believe that studying abroad allows them to explore various places that interest them. This upcoming experience will undoubtedly leave a lasting impression on these students, given their lack of prior exposure to such opportunities. Studying at an international university will undoubtedly be an unforgettable experience for students. In addition, this global admission opportunity will enable students to gain a fresh outlook on life. The findings of the study align with the results of a previous study (Nguyen et al., 2020).

In addition, the study's findings confirmed the hypothesis that incorporating international elements into academic programmes has a significant positive effect on the satisfaction of international students. The study conducted by Amzat et al. (2023) also reported similar findings in their research. One possible explanation for the study's findings is that students attending international universities value the inclusion of international perspectives in their coursework while studying abroad. Also, these students appreciate the mission statement of their host university, as it aligns with their motivation to study abroad. The internationalisation of education is a crucial aspect of their study. The courses these students are studying include examples from various regions around the world. It provides them with an opportunity to analyse various cultural perspectives as well. The university administration also encourages students to participate in international courses to broaden their knowledge. The respondents believe that studying international students from diverse backgrounds is an integral part of their coursework. By gaining an understanding of individuals from diverse backgrounds, universities can foster an environment of inclusivity and acceptance. The student's effectiveness and efficiency are also enhanced. The knowledge of the students is also increased as they learn a lot from each other. Therefore, participating in an international programme with a global perspective can greatly benefit students in their academic pursuits, ultimately leading to higher levels of satisfaction.

The research findings indicate that the adoption of socio-cultural factors plays a crucial role in determining the satisfaction levels of international students. Adapting to the socio-cultural factors of the host country is crucial for international students. There are often variations in societal and cultural values between one's home country and the country they are residing in. In addition, there are numerous students from diverse social and cultural backgrounds. Therefore, there is a wide range of students. In this situation, it is crucial to adapt to the host nation. This finding can be attributed to the students' ability to comprehend the cultural disparities between their home country and the country they are studying in. International students possess a unique ability to perceive things from a local perspective. Local people's needs and requirements can be better understood by them. In addition, individuals can form connections within the surrounding community and immerse themselves in the local culture.

Therefore, they possess a comprehensive understanding of the cultural values held by the local population. These students can effectively communicate with the local community. They instill the belief that international students can adapt to local requirements and effectively communicating in accordance with them. International students possess a solid grasp of how to navigate bureaucratic processes in their host country. These factors contribute to student satisfaction. When international students are pleased with their university and its programmes, they will share positive feedback with others in their community and back home (Gabbianelli & Pencarelli, 2023). Consequently, an influx of students will choose to enrol in the same international university, resulting in a rise in revenue and profit. Furthermore, the performance of international students has shown improvement in terms of innovative behaviour. Students often gain fresh and innovative ideas from peers who come from diverse cultural and background backgrounds. In addition, they also value and actively seek out innovative ideas that are rooted in the local culture. The satisfaction of students has a positive and significant impact on their innovative behaviour (Kanwar & Sanjeeva, 2022).

Contribution, Limitations, and Implication

This study has important implications for both managers and researchers in the field. This study focuses on the factors that are crucial in helping international students adjust to studying abroad, making a valuable theoretical contribution. This study emphasises the significance of social-cultural factors, mobility roles, and academic programmes in influencing the behaviour of international students. This study is one of the few that has explored the mediating role of satisfaction in the relationship between international student mobility, academic programmes, international culture, novelty seeking, and innovative behaviour among international students. Furthermore, this study represents a significant contribution to the field as it explores the interplay between emotions, cultural factors, and innovation within a comprehensive framework. This study offers valuable insights for decision-making authorities in KSA universities, enabling them to effectively attract more students and enhance their revenue.

Regarding limitations, there are also a few constraints in the current study. This study aims to provide a clear and comprehensive explanation of the subject matter. Further research may employ an exploratory approach to conduct a more comprehensive analysis. Furthermore, this study investigates the mediating role of satisfaction. It will be intriguing to investigate the moderating role of student satisfaction in the latter portion of the proposed model. The analysis of the gathered data in this study was conducted using SPSS. In addition, AMOS can also be used as an analysis tool for future studies. Ultimately, the incorporation of any technological variable would be a valuable addition to the proposed model for future research. This study offers valuable guidance for researchers in their future academic endeavours. This study provides insights into strategies that can help decision-makers in the higher education sector of KSA enhance innovation behaviour among international students.

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Variables and Items

Variable	Items	References
Student's innovative behaviour	I pay attention to issues that are not part of my duty I wonder how things can be improved I search out new tasking methods, techniques or instruments I generate solutions for problems I find new approaches to execute tasks I make other people enthusiastic for innovative ideas I attempt to convince people to support an innovative idea I systematically introduce innovative ideas into learning practices I contribute to the implementation of new ideas I put effort into the development of new things	(Kistyanto et al., 2022)
Student Satisfaction	I am satisfied with my decision to register at this university My choice to choose this university was a wise one I think I did the right thing when I chose to study at this university I feel that my experience with this university has been enjoyable Overall, I am satisfied with this University	(Ali et al., 2016)
International student mobility	The process of gaining admission into my university is simple. Getting my VISA/Entry Pass approved from my home country is very easy. I believe my university gave me comprehensive/ accurate information on my admission requirements. I have the right information on living conditions and expenses before leaving my home country. I feel welcomed in Malaysia by the university and community. International education in my university aids outgoing mobility opportunities/learning experiences for students. I may consider applying for a job after graduation to gain more expertise in my field of study	(Amzat et al., 2023)

Internationalizing Academic Program	When an international dimension is included in my courses, I feel good about it. My university's current mission statement supports the definition of internationalization presented above. The international dimension in learning is an important element of the educational process in my department. The contents of my program have provided examples from all regions of the world. I have been encouraged in my department to take courses that incorporate international content. Learning about people from different backgrounds and cultures is part of the education in my department.	(Amzat et al., 2023)
Culture and novelty seeking	To feel different atmosphere of destination To visit places related to my personal interest To discover new culture and lifestyle To have unpredictable experiences To gain new perspective on life	(Li, Hernández Martín, & Rodríguez González, 2023)
Socio-cultural Adoption	Making friends Using the transport system Making yourself understood Understanding jokes and humor Dealing with someone who is unpleasant/cross/aggressive Getting used to the local food/finding food you enjoy Dealing with people in authority Dealing with the bureaucracy Adapting to local accommodation Communicating with people of a different ethnic group Relating to members of the opposite gender Dealing with unsatisfactory service Finding your way around Dealing with the climate Dealing with people staring at you Understanding the local accent/language Living away from family members overseas/independently from your parents Adapting to local etiquette Relating to older people Dealing with people of higher status . Understanding what is required of you at university Coping with academic work . Expressing your ideas in class Living with your flatmate/roommate Understanding the local value system Seeing things from the locals' point of view Understanding cultural differences Being able to see two sides of an intercultural issue	(Yerken et al., 2022)