

Research Article

## Measuring the Critical Influencing Factors for student decision making on higher studies to Study Abroad

<sup>1</sup>Aravind Arasavilli, and <sup>2</sup>Dr. M. Kishore Babu

**Abstract.** India is the second leading country to send the students for Abroad Study after China among the world. The present study focus on critical influencing factors for student decision making process of higher studies to Study Abroad. A Questionnaire was prepared with 32 items of different aspects to cover student intension and motivations to abroad study on Five point Likert Scale. 1476 responses were received from south Indian participants. Exploratory Factor Analysis (EFA) is selected with Principal component analysis found that four-factor structure comprising 79.07 per cent of total variance was observed between the items. Four key parameters were Institution quality and reputation, Entertainment and facilities, Opportunities and Requirements, worth of study and financial issues identified. Factor analysis provided support for the reliability of the questionnaire by evaluating Cronbach's Alpha value. Descriptive statistics relieved that Mean and Standard Deviations of all items in the study. Influence of gender preference in selection of abroad study is studied. Study results will be useful for policy makers and educational consultancy to know influencing factors of student choices and motivations for abroad studies.

**Keywords:** Study Abroad, Student Decision Making, Higher Studies, Exploratory Factor Analysis.

### 1 INTRODUCTION

Internationalization can occur both at home and abroad: at home, it is a campus-based activity that does not require the movement of people or programmes across borders, but abroad, it refers to cross-border activities or cross-border education that does entail the movement of people. The term "Internationalisation" refers to the movement of goods and services across national borders (Knight, 2004). India is the largest source of overseas students in the world after China and the number of Indian students pursued higher education overseas has been steadily growing in the past decades. In order to make a proper decision about studying abroad, international students must consider what is significant to them and make a conscious or unconscious exchange between the attributes. Compared to domestic students, international students' decision-making is influenced by factors that go beyond the traditional measures provided in college access research in the United States stated gender, ethnicity, social status,

<sup>1,2</sup>Management Department, K.L. University, Andhra Pradesh, India. [aravind.a@kluniversity.in](mailto:aravind.a@kluniversity.in) parents, etc. (Soutar & Turner, 2002), Students who choose to pursue higher education in a foreign country go into a distinct decision-making process and are influenced by a unique set of circumstances than domestic students.

The selection of decision to study abroad for international students is a multi-level and challenging one. A diverse variety of factors involved in the process may be described as factors from the home country that "push" students to study abroad and factors from the host country that "pull" them to do so (Mazzarol & Soutar, 2002. Ahmad Bayiz, 2018). 14 common factors influenced international students' decision to obtain a degree in Australia, according to studies of international students from Indonesia, Taiwan, India, and mainland China. Students' positive perceptions of education abroad, inclination to a foreign community, accessibility to information on the host country, and students' awareness of the host country were among these important factors.

### **Indians Students' Study Abroad**

The number of Indian students studying abroad increased by 5.2 times, from 66.7 thousand in 2000 to 305 thousand in 2017, representing a 9.4% annual growth rate (Varghese 2017). India is the second-largest student-sending country after China, with over 305 thousand Indian students studying abroad. The United States continues to be the most popular destination for Indian students, despite the fact that its percentage has decreased over time. The vast majority of Indian students studying overseas are aspirants, however a few highfliers have recently joined them (Poonam Kakkad 2015). Indian students choose STEM (science, technology, engineering, and mathematics) subjects, with almost three-quarters pursuing post-graduate (master's and doctoral) degrees. The main reason Indian students went abroad to study was to get international experience by connecting with students from various countries, cultures, and nationalities (Bhatia and Anderson, 2012). However, this study only focused on south Indian student decisions to pursue higher education at abroad. The students' choice of destination was influenced by scholarship, social media, institutional considerations, national image, programme structure, and personal variables. Despite the dropping rupee value, cost did not have a substantial influence. (Haldorai, 2017). According (Wadhwa, R.2016) to the findings, visa and migration policies, career possibilities, cost of living, and host country culture are all important elements that influence prospective students' choice of a destination country.

### **Theoretical Framework**

Cubillo (2006) proposed a theoretical model for international college student choice based on education as a service to evaluate potential foreign studies purchasing intention. Purchase intention was employed as a predictor for consumers' preferable choices in their study, and it was described as a student's intention toward the country's destination as a provider of education services. Purchase intention is the dependent variable in this model, which combines 19 independent variables into four factors: personal motives, country image, institution image, and programme evaluation. Personal development, skill development, further professional options, rearrangement of the institution and courses, service expectation, and guidance from others are among the reasons given by students. Students' purchase intentions and perceptions of schooling are heavily influenced by the image of their country (Yi (Leaf) Zhang 2013). It is also the first source that consumers consider when making a selection because it is the most reliable. Prospective students in countries where they have a positive or favourable attitude have a greater perceived value of the quality of higher education. The image of the city has an impact on students' decisions because it reflects the setting in which overseas students will attend college. The image of the institution, which includes academic repute, faculty excellence, and expertise, attractiveness of the campus, quality of facilities, students' services and activities, institutional cultures, etc., can strongly impact students' choice of institutions. The final aspect, programme evaluation, has an impact on students' decision to enrol in a programme and major. Before a prospective student chooses which programme to enrol in, they will assess suitability, course selection, entry requirements, prices, and financial aid

## MEASURING THE CRITICAL INFLUENCING FACTORS FOR STUDENT DECISION MAKING ON HIGHER STUDIES TO STUDY ABROAD

options. The objective of the present study is identifying key factors influencing student choice for higher education at study abroad. Influence on gender for selection of study abroad will study. Research work flow followed in the present study is shown in figure 1. By observing various studies a conceptual model of student decision making to Study Abroad was adopted for present study is shown in figure2.

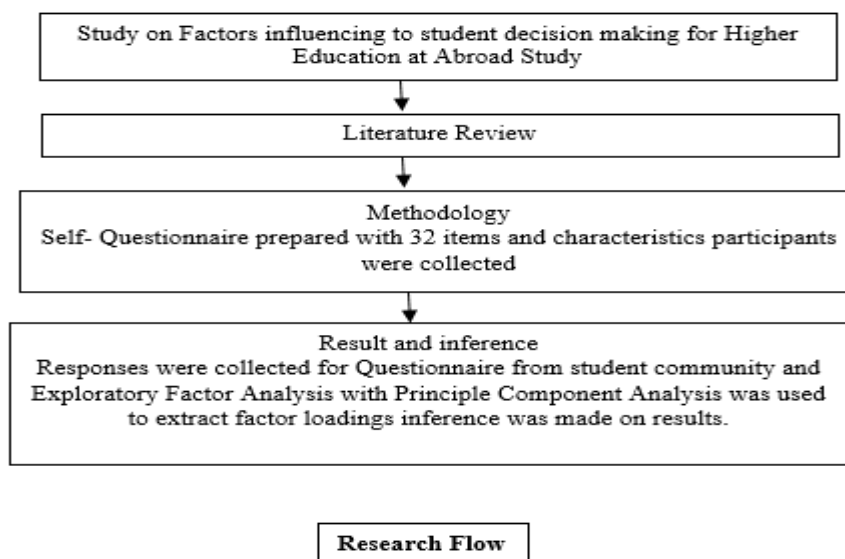


Fig1. Research flow followed in present study.

Present study following list of sequences, first literature review on factors influencing study abroad were studied. A Questionnaire prepared and collected responses with participants characterises. Finally Exploratory Factor Analysis is conducted to derive key factors influencing student decision making on study abroad.

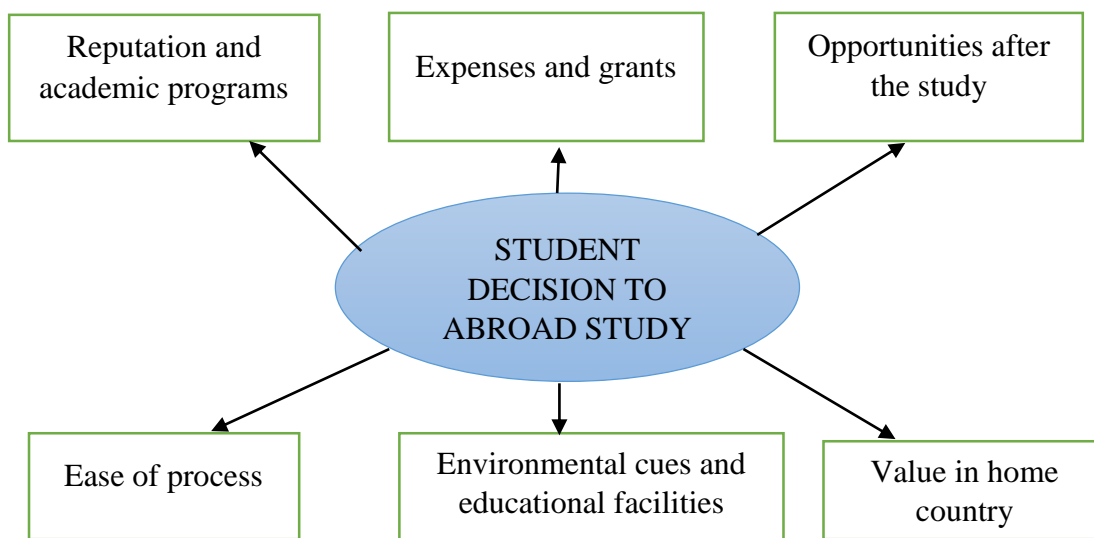


Fig 2. Conceptual model of student decision making to Study Abroad

The conceptual framework of the present study highlighted in Figure 2 with different factors considered after literature review. There are various push and pull variables that influence a student's decision to study abroad (Wadhwa, R.2016).

## 2 Methodology

The methodology used in present study was a structured questionnaire framing by considering different areas relating to abroad study was the main tool to collect the data. Questionnaire data was collected through both offline and online survey involving perspective students who want to study Higher Studies at abroad, responses was received from different places in South India. Online survey was chosen, because of its associated benefits including the ease, and relatively faster reachability way of targeting the respondents and collecting data. Students were also invited to participate in the study using hard copies of questions. On the factors influencing the decision to study abroad, questions were designed to measure the extent to which various factors influenced this decision. A five point measured Likert-type scale, where 1 is Never, 2 is occasionally, 3 is quite often, 4 is frequently, and 5 is nearly all the time was used.

In order to measure the possible factors that influence student decision to study abroad, the study was conducted. A total of 1496 completed questionnaires were collected. However, only 1476 responses were found usable after deleting 20 cases which were detected as outliers. Finalized sample is sufficient to use in the analysis, as it exceeded the minimum sample size required of ten cases per variable as the acceptable lower limit (Mercy Mpinganjira 2009, I.M.S. Weerasinghe 2018). The sample size also compared well with those used in other studies found in related to literature. The sample was made up of 952 male students and 516 female students representing 64.5 and 35% respectively. Statistical Package for Social Science (SPSS) version 26 software was used to analyse the data. Descriptive statistics, Factor analysis were the main statistical tools used in the analysis. Exploratory Factor Analysis (EFA) was run to study students on the 28 item questionnaire scores. Principal component analysis (PCA) with varimax rotation was run to examine the factor structure of the participant responses. Cronbach's alpha reliability was also calculated for assessing the reliability of the questionnaire scaled scores. Age, gender, father's occupation and family economic status of the participants were studied with the help of descriptive statistics.

## 3 Results and Discussion

Student decision making to pursue higher studies at abroad study is complicated process which involve several key factors like expenses, opportunities, reputation, programs available, Career enhancement, value in home country, easy of process, environment, etc. As a result, Questionnaire was prepared which covers various factors to select abroad study and identifying key factors from it. Present study focus on with the help of Questionnaire assess the characteristics of student participants and construct factor loadings by using Exploratory Factor Analysis. Reliability analysis also performed with the help of Cronbach's Alpha value.

Table1. Distribution of Socio-demographic characteristics of participants

<b>Variable</b>	<b>Group</b>	<b>Frequency</b>	<b>Percent</b>
<b>Age</b>	<20years	408	27.6
	21-23years	916	62.1
	24-26years	80	5.4
	>27years	72	4.9
<b>Gender</b>	Female	516	35.0
	Male	952	64.5
	Prefer not to say	8	0.5
<b>Place Belongs to</b>	Rural(village)	772	52.3

**MEASURING THE CRITICAL INFLUENCING FACTORS FOR STUDENT DECISION MAKING ON HIGHER STUDIES TO STUDY ABROAD**

	Urban	704	47.7
<b>Experienced abroad</b>	Yes	140	9.5
	No	1336	90.5
<b>Fathers Occupation</b>	Business	108	7.3
	Farmer	532	36.0
	Employee	400	27.1
	Daily wage earner	256	17.3
	Others	180	12.2
<b>Family Income</b>	<1 Lakh	760	51.5
	2-5 Lakh	360	24.4
	5-10 Lakh	272	18.4
	>10 Lakh	84	5.7
<b>Study wants</b>	Undergraduates	172	11.7
	Postgraduates	936	63.4
	Doctor of Philosophy	148	10.0
	Others	220	14.9
<b>Specialization</b>	STEM(science, Technology, Engineering Mathematics)	1004	68.0
	Social Science	88	6.0
	Arts	80	5.4
	Others	304	20.6

The table 1 shows the distribution was of the characteristics of the participants studied by age, gender, and place belongs to, experienced abroad, fathers occupation, family income, study wants to pursue and specialization looking for. In the population of responds male were 952 with 64.5 percent whereas female drivers 516 with 35 percent and prefer not to say about gender respond with 0.5 percent. Age group of participants most of them were belongs to less than 20 Years with 27.6 percent and 21-23 age group with 62.1percent, these age group students mostly completed or final year of their undergraduate courses. The population of responses was rural background with 52.3percent and urban people with 47.7, it shows rural places people also equally selecting higher studies in abroad. Father occupation got mixed responses out of those more was farmer with 36 percent and working employee with 27.1 percent. Income status of participants family more from less than one lakh rupees were 51.5 percent followed by 2-5 Lakhs with 24.4 percent. The level of education participants wanted to study at abroad were most of them opted as post-graduation with 63.4percent. Specialization of the program looking to pursue at abroad was maximum responded for STEM (Science, Technology, Engineering and Mathematics) with 68 percent.

Table 2. Mean and Standard Deviation Scores of 1476 Participants in the study.

<b>Q No</b>	<b>Statement</b>	<b>Mean</b>	<b>SD</b>
1.	University's reputation	3.98	1.083
2.	Worth of a degree from that Nation/University	3.86	1.142
3.	University's ranking	3.91	1.119
4.	Teaching Reputation	4.02	1.057
5.	High academic standards of this institution	4.02	1.128
6.	Special/specific programs	3.98	1.077
7.	A specialized degree that would help with job prospects.	3.92	1.125
8.	Affordable accommodation costs	3.75	1.244
9.	Overall living costs	3.70	1.132
10.	Reasonable tuition fees/cost	3.70	1.231
11.	Scholarships and Grants	3.81	1.154
12.	Opportunity to stay in Abroad after completion of study	3.81	1.165
13.	Opportunities for permanent residence in Abroad	3.53	1.221
14.	Potential employment in a abroad country	3.92	1.167
15.	Employment opportunities after completion of study	3.85	1.176
16.	Ease of visa process	3.71	1.121
17.	Easy process to apply	3.62	1.142
18.	Admission conditions like GRE, ILETS, and TOFEL	3.76	1.125
19.	Ease of transferring credits	3.63	1.167
20.	English communication	4.02	1.076
21.	Clean environment	4.06	1.036
22.	Library facilities	4.06	1.090
23.	Create potential employment in your home country	3.64	1.137
24.	Worth of the Degree valued in my home country	3.71	1.162
25.	location of the university	3.85	1.044
26.	Size of the institution	3.69	1.052
27.	Recreational facilities	3.82	1.058
28.	Attractive entertainment	3.91	1.145
29.	Safety	3.99	1.102
30.	Distance from home town	3.78	1.184
31.	Tourism	3.80	1.090

**MEASURING THE CRITICAL INFLUENCING FACTORS FOR STUDENT DECISION MAKING ON HIGHER STUDIES TO STUDY ABROAD**

32.	Part time opportunities	4.06	1.155
-----	-------------------------	------	-------

Table 2, shows the mean and standard deviation of 32 items with 1476 participant's responses. Mean values have been used to come up with the rank order. According to the results in Table 2, the most important factor influencing the decision to study abroad was in overall items greater than 4 considered. Student opted first important item as "Teaching Reputation" with Mean as 4.02 and SD as 1.057. Teaching reputation is important selection in abroad study, various rankings and websites give the details about teaching reputation of that particular University in that Nation. Second choice was "High academic standards of this institution" it has Mean as 4.02(SD 1.128), Academic standards and research facilities also important consideration for study selection. Third important item was "English communication" it has Mean score 4.02(SD 1.1076). English is a global language in order to survive and communicate to people in new places English is compulsory. That's the reason most of the countries restricted, for getting admission to that particular country students need to submit their English test score. Fourth item was "Clean environment" has Mean score as 4.06(SD1.036), study and learning is directly proportional to Cleanness of the place. Fifth item was "Library facilities" as Mean of 4.06(SD1.09), library is primary source of information to provide knowledge, better library facilities like books, material and online resources were important. Sixth item was "Part time opportunities" has Mean score of 4.06(SD1.115). Most of the Indian students interested to do part time jobs while studying abroad in order to earn their daily expenses, why because cost of living at abroad much higher than India. Safety is also important choice for students who wants to study abroad, safety got mean score as 3.99 with SD 1.102. Safety was primary criteria for female students as well as Male students also.

**Table 3.** Factor loading solution of the 32 items.

Item	F1	F2	F3	F4
Worth of a degree from that Nation/University	.855			
High academic standards of this institution	.833			
University's ranking	.824			
A specialized degree that would help with job prospects	.812			
University's reputation	.803			
Special/specific programs	.784			
Teaching Reputation	.765			
Tourism		.836		
Distance from home town		.754		
Safety		.740		
Part time opportunities		.714		
Clean environment		.662		
Attractive entertainment		.643		
Recreational facilities		.640		
Size of the institution		.572		
location of the university		.547		

Library facilities		.529		
English communication		.512		
Opportunity to stay in Abroad after completion of study			.816	
Potential employment in a abroad country			.812	
Opportunities for permanent residence in Abroad			.788	
Employment opportunities after completion of study			.746	
Ease of transferring credits			.635	
Easy process to apply			.618	
Ease of visa process			.600	
Admission conditions like GRE, ILETS, and TOFEL			.579	
Overall living costs			.554	
Scholarships and Grants			.550	
Create potential employment in your home country				.753
Worth of the Degree valued in my home country				.665
Affordable accommodation costs				.613
Reasonable tuition fees/cost				.611

After performing Mean score analysis of 32 items separately, an exploratory factor analysis was selected to identify any underlying dimensions that were occurred in the data. To formulate the factorial structure of questionnaire, in EFA, Principal Component Analysis was selected for properties analysis with varimax rotation. Varimax rotation technique was based on the assumption that the factors were correlated because the questionnaire constituting the student choice were not independent of each other. For factor analysis, threshold values considered questions with factor loading above 0.5, and Eigen values greater than 1.0 which constitute 79.07% of the total variance. The Kaiser–Meyer–Olkin (KMO) index was 0.934 for the adequacy of samples (Bartlett’s test of sphericity, had the values of  $df = 496$ ,  $P < 0.000$ ) was statistically significant.

The summated average of all variables loading on a factor was used to calculate new composite variable values for each factor. After a thorough examination of the variables loaded on each, the composite variables were renamed. After factor analysis, factor loadings were extracted with four groups as shown in Table 3. In first group factor loading contains 7 items varying from the values of Max 0.855 to Min 0.765. This group is named as “Institution quality & reputation”. Second group factor loadings consists of 11 items values varying from Max 0.836 to Min 0.512. This group named as “Entertainment and facilities” Third group factor loadings consists of 10 items, values varying from Max 0.816 to Min 0.550. This group named as “Opportunities and Requirements”. Fourth group factor loadings consists of 4 items, values varying from Max 0.753 to Min 0.611. This group named as “Worth and Financial”. From factor loading analysis 32 items formed as four groups named as Institution quality and reputation, entertainment and facilities, opportunities and requirements, worth and financial



## MEASURING THE CRITICAL INFLUENCING FACTORS FOR STUDENT DECISION MAKING ON HIGHER STUDIES TO STUDY ABROAD

issues out of these institution quality & reputation got high preference from student perception to select abroad study. Student choice for higher studies for abroad study was measured based on responses received from participants. Moreover, factor analysis provided support for the reliability of the questionnaire with Cronbach's Alpha value 0.980.

Results of MANOVA proved that there was a statistically significant difference between two groups female and male (David 2003, Dickson, 2010) on the combined dependent variables, Wilk's  $\lambda = 0.548$ ,  $F(64,2872) = 15.769 < 0.01$  partial  $\eta^2 = 0.260$ , Observed power = 1.00. Based on these results, evidence was there was no difference on decision on abroad study between male and female participants. The effect size was large. The observed power was 1.00 indicating that there was a 100% chance that results could have come out significant. Female and male aspirants who wants to take abroad study decision choice no difference found.

### 4 Conclusions

Through this study an attempt was made to understand student decision making process for higher education at Abroad. Questionnaire was prepared with 32 items of different aspects to cover student intension and motivations to abroad study. Present study focus on south Indian student choices and motivations for selecting abroad education. Questionnaire consists of 32 items with five point Likert scale used to collect data from perspective students. A total of 1476 responses were finalized for the study. Meanwhile, descriptive analysis on the student choice and motivations were revealed high mean scores came from Teaching Reputation, High academic standards of this institution, English communication and Clean Environment which shows south Indian students intention for selecting Abroad Study. Exploratory Factor Analysis was used to extract factors, principle component analysis with varimax rotation technique was adopted. A four-factor structure accounted for 79.07 per cent of total variance was observed between the items. Four Key parameters were Institution quality and reputation, Entertainment and facilities, Opportunities and Requirements, worth of study and financial issues identified from Exploratory Factor Analysis. This confirms the validity and reliability which supports further use of the Questionnaire to the study. Factor analysis provided support for the reliability of the questionnaire by evaluating Cronbach's Alpha value 0.980. Female and male group student choice there was no difference found to select study abroad. Present study results will to policy makers and educational consultancy to know influencing factors of student choices and motivations for abroad studies.

Limitations of the present study small number of questionnaire items (only 32) with four factors were retained in present study, and further research would cover more questionnaire related to in depth characteristics of perspective students. The survey was conducted online, which may difficult to response to all students next in offline questionnaire and interviews will be collected.

### References

1. Ahmad Bayiz Ahmad & Mahsood Shah. International students' choice to study in China: an exploratory study, *Tertiary Education and Management*, 24:4, 325337(2018).
2. Bhatia, A. and Anderson, R. 'Factors influencing Indian student's choice of overseas study destination', *Procedia - Social and Behavioral Sciences*, Vol. 46, pp.1706–1713(2012).
3. Cubillo, J. M., Sánchez, J., & Cerviño, J. International students' decision-making process. *International Journal of Educational Management*, 20(2), 101-115 (2006).

4. David, M.E., S.J. Ball, J. Davies, and D. Reay. Gender issues in parental involvement in student choices of higher education. *Gender and Education* 15, no. 1: 21-36. (2003).
5. Dickson, L. Race and gender differences in college major choice. *Annals of the American Academy of Political and Social Science* 627, no. 1: 108-24(2010).
6. Haldorai, K., Pillai, S.G. and Kazako, K. 'Determinants of study abroad decisions among Indian students: a PLS approach', *Int. J. Management in Education*, Vol. 11, No. 1, pp.1-24(2017).
7. I.M.S. Weerasinghe, R. Lalitha S. Fernando, "University facilities and student satisfaction in Sri Lanka", *International Journal of Educational Management*, Vol. 32 Issue: 5, pp.866-880, (2018).
8. Knight, J. Internationalization Remodeled: Definitions, Rationales, and Approaches, *Journal of Studies in International Education*, Vol. 8, No.1, pp. 27-37(2004).
9. Mazzarol, T., & Soutar, G. "Push-pull" factors influencing international student destination choice. *The International Journal of Educational Management*. 16(2), 82-90 (2002).
10. Mercy Mpinganjira. Comparative analysis of factors influencing the decision to study abroad. *African Journal of Business Management* Vol. 3 (8), pp. 358-365 (2009).
11. Poonam Kakkad., A Study On The Factors Influencing Students' Decision to Study abroad *BVIMSR's Journal of Management Research* Vol. 7 Issue - 2 :(October : 2015).
12. Soutar, G. N., & Turner, J. P. Students' preferences for universities: A conjoint analysis. *The International Journal of Educational Management*, 16(1), 40-45 (2002).
13. Varghese, N.V. Internationalization and Cross-border Mobility in Higher Education, in Egetenmeyer, Regina; Guimaraes, Paula; and Nemeth, Balazs (eds) *Jopint modules and internationalization in Higher Education*, Frankfurt, Peter Lang, 2017, pp. 21-38(2017).
14. Wadhwa, R., Students on Move: Understanding Decision-making Process and Destination Choice of Indian Students. *Higher Education for the Future* 3(1) 54-75(2016).
15. Wilkins, S., Shams, F. and Huisman, J. The decision-making and changing behavioural dynamics of potential higher education students: the impacts of increasing tuition fees in England. *Educational Studies*, 39(2), 125-141(2012).
16. Wilkins, S, Balakrishnan, MS & Huisman, J, 'Student choice in higher education: Motivations for choosing to study at an international branch campus', *Journal of Studies in International Education*, vol. 16, no. 5, pp. 413-433(2012).
17. Yi (Leaf) Zhang, Jie Sun, Linda Serra Hagedorn Studying Overseas: Factors Impacting Intention of Female Students in Mainland China. *Journal of International Students*. 3 (2), 140-154(2013).