Reflections on the Perceptions and Experience of International Students in the University of Delhi, India - A Primary Data-Based Analysis

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Abstract

The study takes the University of Delhi, India, as a case study to understand how to achieve internationalisation of higher education in India. Through a focus group discussion, it first attempts to understand the perceptions of International Students (ISs) regarding diverse aspects of the university in detail. By employing exploratory factor analysis on the data collected from 99 ISs, it then tries to identify and explain the factors that could have had a bearing on the student's overall satisfaction with the university experience. Lastly, it segments the respondents into two clusters, differentiating them on varying satisfaction parameters using cluster analysis. Through the study, we have been able to identify the various challenges faced by ISs and suggest ways to make their experience more satisfactory. The results underline a substantial need for the university to emphasise the socio-cultural integration of ISs and streamline the admission process to attract them because satisfied ISs are more likely to recommend their institution to prospective students.

1. Introduction

The United Nations Educational, Scientific, and Cultural Organization (UNESCO) define an International Student (IS) as somebody who has crossed a territorial border for education purpose and have enrolled outside their original country. Many factors can have led to the surge of interest in ISs. One, they become wonderful ambassadors of the host country's culture when they return to their home countries. Secondly, the global competency of national students increases as they interact and learn with ISs. Their presence enriches class discussions and helps build a university's international knowledge capacity[1].

To attract ISs to India, the government of India embarked on the initiative of 'Study in India' in 2018. The aim was to bring diversity to Indian classrooms,


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given the widespread evidence of benefits that the Internationalisation of Higher Education (IoHE) brings. It has made efforts to ease the visa process, provided sizable fee waivers, and introduced a benchmark exam, 'Ind-SAT' (Scholastic Assessment Exam), along with the centralization of the web portal for admissions and granting of a limited work permit, amongst others. The scheme marks a collective effort to boost India's inbound mobility ratio, which currently stands at 0.1%, compared to its outbound mobility ratio of 1.1%. An inbound mobility ratio of 0.1% means the number of students from abroad studying in India is 0.1% of the total tertiary enrollment in India.

The purpose behind such government initiatives will not materialize unless universities reflect and work in tandem with the efforts taken by the government. This study has chosen the University of Delhi (DU) as a case in point. The Association of Indian Universities report[2] also mentions that DU was among the top ten favorite destinations of ISs in India as per a 2015 survey. With the countries like the USA, Australia, and the United Kingdom experiencing rising costs of tertiary education, DU can emerge as a suitable option for many ISs in terms of affordable quality education and availability of preferred courses.

DU has also been presented the 'Institution of Eminence' (IoE) status by the University Grants Commission (UGC) of late and has also featured in the top six ranked universities in the latest university ranking by the National Institute of Ranking Framework (NIRF), Ministry of Education, India. Under this honorary badge, an IoE would be provided with resources and requisite autonomy to undertake policy changes, enabling it to compete with the world's top hundred ranked institutions. Increased absorption of ISs into the varsity can serve as one of the glaring achievements to mark this badge.

In the past few years, the enrolment of ISs at DU has grown modestly. The Foreign Students Registry (FSR), a dedicated institutional set-up for all the foreign nationals wanting to be admitted to DU in different courses, mentions that approximately 1500 international students enrolled in undergraduate courses for 2019-2020. Furthermore,
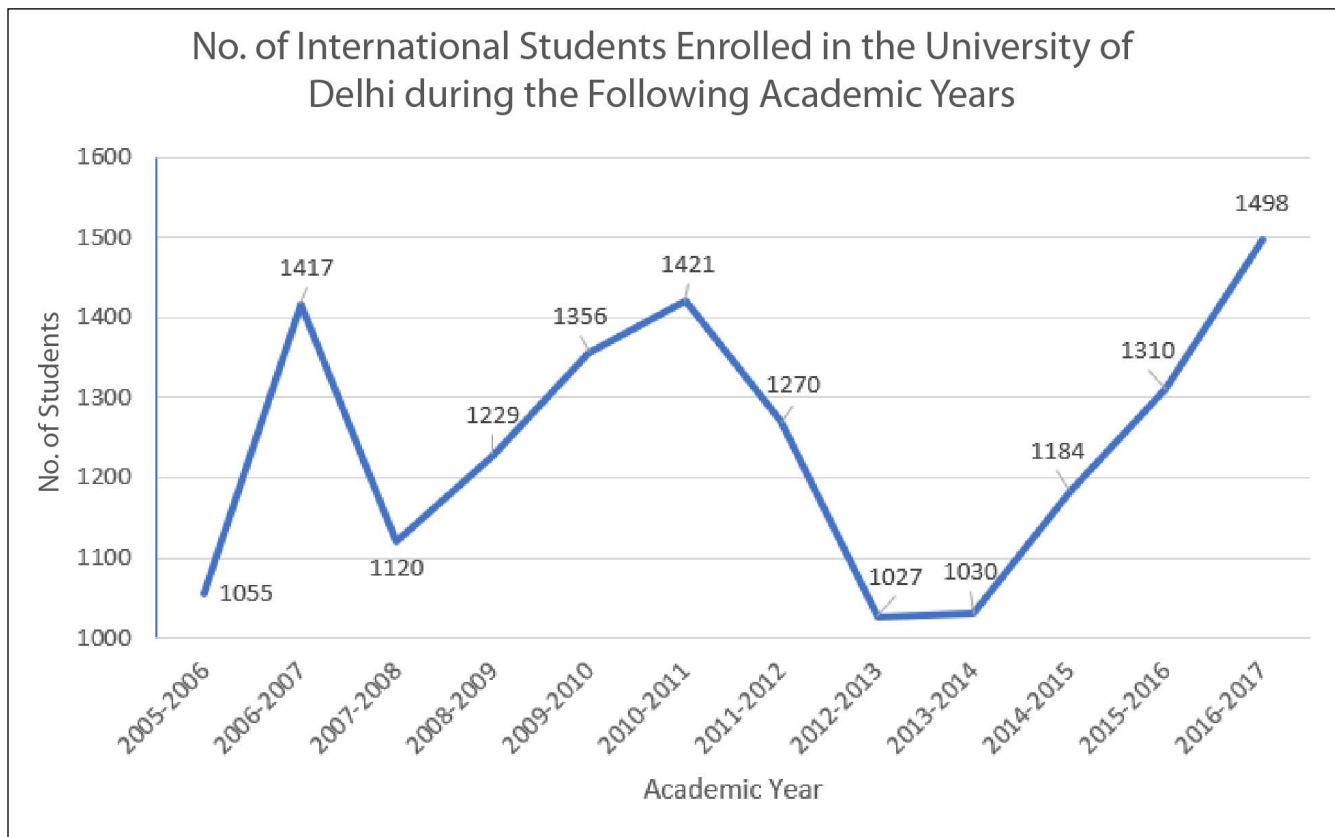
Source: Foreign Students Registry (FSR). The figure is based on the authors' calculations

Figure 1. Trend of foreign students' enrolment in the University of Delhi

as per the latest available data of enrolment given for the years 2005-2017, growth has been increasing for the past four years. We depict this in Figure 1 below. The average IS intake of 1,243 is not impressive. It constitutes 2.6% of India's total international student intake, i.e., 47,427[3]. Therefore, it warrants a need to uncover the underlying reasons behind this low intake and how the varsity can achieve higher enrollment for international students. Our study tries to reflect on the latter by emphasizing the satisfactory experience of an international student.

Although many ISs in DUhail from Nepal, Tibet, and Afghanistan, the list of countries from which international students arrive has expanded. There has been an increase in enrolment from countries such as Vietnam, the United States, Bangladesh, Maldives, Sri Lanka, various countries in Africa, and a few European countries[3].

Upon admission, the ISs entering the university face a paradigm shift adhering to their opted course's cultural and social facets. This altered environment here makes them feel alienated, reflecting upon their performance academically and otherwise. The review discussed in the next section identifies their challenges as language barriers, adjustment difficulties in a new academic culture, problems in communicating with peers and faculty, financial issues, and social adjustment. As a result, it leads to stress, anxiety, the feeling of isolation, and dissatisfaction resulting from the nonfulfillment of certain expectations from the university, amongst others.

Therefore, the principal objective of the study is to understand students' experiences and their perceptions towards various aspects of the university. The challenges identified from the above exercise would help us identify the key areas that need attention so that students can receive support and have a more satisfactory experience. The rest of the paper has been organized as follows. The following section provides a thorough review of the literature and presents a case for why this study is relevant. It is then followed by methodology, findings, discussion, and conclusion.

2. Literature Review

Integration of International Students (ISs) in the classrooms through teaching expertise and quality education is increasingly prioritized at many institutions globally. IoHE in India remains lopsided as India is poorly prepared to host students[5]. Therefore, India must prepare to host more ISs as the mobility of ISs acts like a "soft power" tool, i.e., a country's ability to influence the collective attitude of the other country[6]. The promotion of IoHE in India is vital to achieving the following objectives: reaping its demographic dividend, improving its image or soft power, enhancing its global visibility, and thereby emerging as an education hub in the region[5]. There is, therefore, a strong case for why India as a country must strive to promote IoHE.

In a survey-based study[7], it was demonstrated that for an IS, the choice of a particular country and the institution there comes foremost. This study found that other important aspects for students were the quality of education, the institution's ranking and reputation, security and safety, and the affordability of the study program. The above discussion reinforces that the host country and institution selection is a crucial decision made by an IS.

Therefore, a question arises: What would motivate students to enroll abroad? A study has tried to examine the motivations of ISs enrolled in universities in Australia[8]. This study presents such motivational influences as 'pull' and 'push' motivation factors, with the pull factors being alumni referrals, the host country's reputation, and the institution's quality. Such aspects influence the decision-making involved in selecting a host country and the institution. Likewise, numerous studies have attempted to study host country and institution selection factors. However, those studies remain restricted to the west and predominantly to Canada[9], the UK[10], and the USA[11], which are English-speaking nations.

The journey of an IS is not all about euphoria and good times, instead involves challenges. In a similar strand of literature, a study[12] identifies these challenges as: inter-student interactions in group participation work, formal and informal interactions with teachers, and other communication and language hindrances. Furthermore, ISs face challenges emanating from different food and living conditions, monetary problems, and finding a work-study balance. They have to adjust their language, culture, and learning styles to fight these personal barriers. The challenges mark a transitional period from everyday life situations to cultural adaptation. Academic setting too has some challenges- the most significant being use of a different language which impedes seamless orientation

for ISs[13]. Such challenges at times lead to anxiety amongst them too.

The ISs worldwide make Indian universities one of the most culturally rich destinations for higher education. However, this amalgamation of different cultures imposes challenges similar to those mentioned earlier. Thus, the Indian culture confuses the ISs, who are oftentimes limited by their own cultures. The scholars in a study[14] also find that ISs are likely to experience academic, socio-cultural, and psychological adjustment issues. Despite this wealth of knowledge and Indian diversity, what is missing from research studies is a discussion concerning the relationship between ISs and the domestic students, that is, a discussion on their social integration issues. As is well acknowledged, students may be vulnerable to exploitation or social exclusion when they lack adequate social, cultural, or economic support. There is a pressing need to bring attention to such challenges to provide a satisfactory experience to ISs[15]. Therefore, it is essential that the institutions actively identify these challenges and provide the various types and levels of support to the ISs in their overall adjustment.

Still, most studies discussing the challenges mentioned above are focused on universities in the USA, United Kingdom, Europe, Australia, and other destinations popular to ISs. Studies related to ISs in emerging economies such as India are often under-researched as it is not of particular interest to the general population. As a result, the published empirical literature on such issues in Indian education remains very little. However, we must highlight the importance of ISs in DU as it has been absorbing a large and increasing number of ISs each year. The study of challenges faced by ISs in the Indian context would serve to strike a dialogue on the emergence of developing countries as global education destinations.

Going ahead, we find that the research studies-both qualitative and quantitative on the perceptions and experience of ISs in Indian HE have been rare. A qualitative study[16] attempts to understand and comment on IS perceptions in an Indian university. Their main question was what attracts ISs to India. Their findings demonstrated those factors as - the quality of HE, Indian cultural diversity, growth of the Indian economy, and affordable cost of education. Thus, a primary component of HE in India is the cultural diversity of the student population on campus, which presents an opportunity for both international and domestic students to interact with peers from different cultural, social, and linguistic backgrounds. A quantitative study[17] by the same scholars also analyses the factors influencing IS destination choice, presenting a case of Indian HE. Their results from exploratory factor analysis indicate the quality of education, conducive structural elements, the cultural appeal of India, job prospects in the destination country, and the opportunity to learn English as the essential factors in host country selection.

However, their study sees ISs as 'consumers' and emphasizes identifying factors that can help achieve 'marketization' of the education sector for the ISs. Their study also ignores aspects closely impacting student experience, i.e., social integration, fair treatment by the administration and other personnel with students, and accommodation issues, amongst others. Another quantitative study[18] improves over the former study[17] as it widens the range of factors incorporated by including factors like safety on campus and in the local area, self-development opportunity, and influence of social networks. Theirs is a good marketing perspective, but we hold a closer social science lens in our study. In doing so, we look at an IS not as a prospective 'consumer' but as an aspirational student seeking solutions to his/her challenges in pursuit of HE outside his home country. Most other studies have focused on "what a student looks for in an institution," but our study is different. It focuses on "what the student looked for in an institution and how the institution performed". So, our study offers reflection and, thereafter, thoughts on strategizing for future. Our study also identifies challenges in an unexplored area of the admission process. The admission procedure is the first interaction of a student with a university. An admission procedure makes a first impression of the university on the student's mind, to a large extent. This research, therefore, tries to fill the gap by trying to answer the following questions -

1. What are the perceptions of ISs towards diverse aspects of their experience at the University of Delhi?
2. What are the factors which determine the overall satisfaction of the student with the university experience?
3. What areas must the university reflect upon and focus on expanding the satisfied group of international students?

Therefore, the study investigates the experiences of ISs at DU to understand the challenges they face and

suggest areas for improvement, thereby helping make their experience better and more satisfactory. That shall also help the university attract more ISs in the university.

3. Methodology

The study followed a mixed-methods approach- i.e., a procedure involving both quantitative and qualitative research methods.

Qualitative research was undertaken to investigate students' comprehensive university and college experience, enabling us to identify the challenges involving, inter alia, administrative requirements, lifestyle, and socio-cultural adjustment of ISs. Through a Focus Group Discussion (FGD), we have tried to understand the perceptions of International Students (ISs) regarding diverse aspects of the university in detail. The FGD was conducted with ten ISs in Sri Guru Gobind Singh College of Commerce. Answers by the participants were audiotaped and transcribed.

After gaining considerable insights from the previous qualitative research, a questionnaire was designed to proceed with the quantitative research, which involved a survey of ISs undergoing full-time tertiary education at Delhi University. All the potential respondents were contacted through the help of international student groups such as NSADU (Nepalese Students Association Delhi University), Foreign Students Association Delhi University Students Union, and other college student groups. The questionnaire designed for this study consisted of 111 questions (mostly closed-ended questions) measuring 149 variables. The questionnaire had six sections: Personal Profile; Personal Concerns; Social Concerns; Academic Concerns; Health and Safety Concerns; and Admission into Undergraduate Program. To test the questionnaire, a pilot study on ten students was conducted. Finally, data were collected through a self-administered questionnaire-based survey, wherein questionnaires were sent to the students via email. In order to identify the sample of ISs across 77 colleges affiliated with the University of Delhi, indirect channels like various cultural societies and foreign student societies of different colleges were utilized. IBM's SPSS software was used to perform quantitative analysis involving the Factor and Cluster analysis on the collected data.

An Exploratory Factor Analysis (EFA) works on reducing dimensionality that is, reducing the observable and measurable variables to fewer latent variables that share a common variance[19]. Using EFA, 16 Likert scale-type questions were grouped into four components or factors. These factors explain the emerging themes around the university's student experience, which reflect the outlook of ISs towards the university's several aspects. The aim was to elucidate the factors that could have had a bearing on the student's overall satisfaction with the university. Lastly, we segmented the respondents into two clusters, differentiating the students on varying satisfaction parameters using cluster analysis. We used cluster analysis to classify the respondents or subjects into groups or clusters such that subjects in a group are more similar to each other than they are to subjects outside the group. Cluster analysis, therefore, provides a concise and understandable description of the respondents by classifying data into two or more groups[20]. We employed a two-step cluster analysis suitable when clusters need to be produced based on a combination of both categorical and continuous variables. A hierarchical and k-means clustering technique works only with the continuous data type. The next session describes the sample data used in quantitative analysis, followed by findings.

4. Data

The study received 99 responses from international undergraduate students across 12 different countries and 25 colleges at DU. As depicted in Figure 2, over 80% of the respondents in our sample were from Nepal, 4% from Sri Lanka, 3% were from Tibet, and 1% each from a few other countries.

Further, approximately 93% of the students aged between 18 and 22, 70% of the respondents were males, while 30% were female. Approximately 64% of the respondents were enrolled in Commerce courses, 28% in Arts and Management courses, and 8% in Science and IT courses.

5. Findings

We discuss the study's findings in two parts:

1. Findings from the focus group discussion as a part of the qualitative research method.
2. Findings from the EFA and cluster analysis as a part of the quantitative research method.
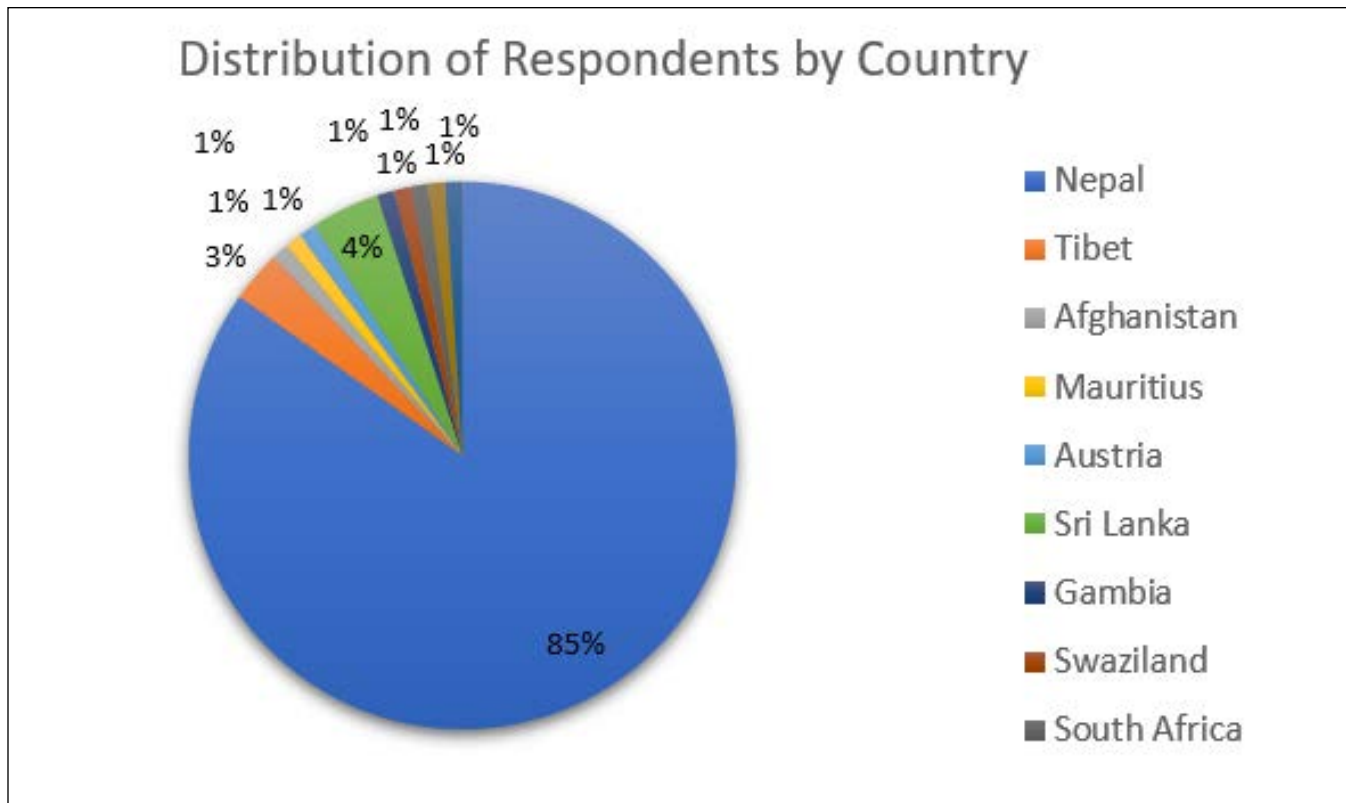
Source: Authors' calculation

Figure 2. Distribution of foreign student respondents in the University of Delhi, by country

5.1 Qualitative Research Findings- Focus Group Discussion

The FGD aimed to discuss students' perceptions, ideas, attitudes, and opinions about their experience while securing admission into the university, during their study time at college, and during their overall experience of staying in India. We conducted it using a semi-structured questionnaire wherein questions were asked sequentially to initiate discussions on them. It revealed that the ISs face various challenges, broadly categorized into the following themes- Administrative issues, University and College experience, Accommodation/Living, Language Barriers, and Social Isolation.

5.1.1 Administrative Issues at Three Levels: FSR, ICCR, College

When ISs first arrive in Delhi, the FSR being a single window for IS admissions, must confirm their admission into the university and allot a college to the student. Likewise, the ICCR (Indian Council for Cultural Relations) is an organization of the Government of India

which provides scholarship opportunities for ISs studying in different universities in India. International students applying to study at DU can apply either through the FSR or ICCR.

Participants, while seeking admission, felt that both the university and college administration were not quite supportive and that often caused delays in several admission procedures. Participants expressed that the university needs to streamline the admissions procedures further. For example, students of certain nationalities encountered problems paying their fees online. When they tried to pay their fees in cash, the need to receive permission from different university departments made the process unnecessarily time-consuming.

Participants who graduated from a different board, such as A-Levels (Advanced Level - school-leaving examination conducted by Cambridge International Examinations) or IBDP (International Baccalaureate Diploma Programme, internationally accepted qualification for entry into higher education), faced problems while securing admission. Their results came out much later than the students from Indian boards such

as the CBSE (Central Board of Secondary Education). This delay reduced the probability of securing admission to their desired college. Participants also complained about the lack of transparency in the college allotment process through the FSR. There is no clarity in the admission criteria being followed, resulting in a mismatch like a student with a lower score assigned a better-ranked college and vice versa.

When the students looked for help, the administration kept redirecting them in circles from one department to another without resolving their problems. The participants felt misguided and developed a lack of trust in the administration and its workings. One participant shared that, although the administrative department is the primary department for admissions-related procedures, some of the associated staff members and teachers were unaware of the presence and concerns of ISs. A few instances that troubled the participants were a participant not made fully aware of the insurance policy requirements and later asked to pay an extraordinarily higher amount; second, a participant complained that a miscommunication between ICCR and FSR led him to get a passport made on an urgent basis wherein he had to face regulatory barriers and pay a considerable sum of money. Some nationalities felt discriminated against by the ICCR because their monthly stipend was delayed for a few months, while other nationalities continued to receive their payments promptly. Overall, several administrative issues were brought to light through the discussion.

5.1.2 University and College Experience

In this section, the discussion evolved as questions were asked about several aspects of the university and college experience, respectively. The participants felt that the university could improve the curriculum by offering modules on emerging subject areas and skill-development courses like Statistics, Research, and Data Analysis, to name a few. Presently, such modules are offered only to a few select programs in the varsity.

Differences in the syllabus taught before college in different countries can lead to differences in how well students perform in graduate college. The current university curriculum does not consider these differences. Therefore, this has led to an unfair weightage of a student's academic performance, thereby affecting their self-esteem and placement opportunities upon the completion of the course.

5.1.3 Accommodation, Living and Career Opportunities

The ICCR office had informed the participants that they would be allotted hostel accommodation by the particular college they got admitted into. However, they were shocked to learn that there was no hostel in the respective college. That is so because not every college in the university has a hostel facility. They felt stranded and had no idea about their stay or transportation and were not aware of any official or formal system that would help them.

Participants felt that accommodation is an issue of substantial concern. Although different accommodations are available at different prices, they faced a certain degree of price discrimination while looking for rented accommodations. Furthermore, communicating with local accommodation providers who cannot converse in English becomes problematic.

Participants also stated that navigating their way around the city was a challenge. Many students occasionally felt uncomfortable using public transport because local people unusually stared at them. However, regarding financial expenses, the participants did not feel any significant difference in the cost of living between Delhi and their home country.

Participants felt the need for a bank account for the ease in online payments and electronic money transfers, but they faced many challenges in creating one in India. Documents such as 'verified rent agreement' are not easy to obtain for a foreign student as they are not aware of the legal procedures. Opening an account through the college also involves plenteous paperwork and is troublesome because of the administration's lack of guidance and clarity.

To access e-payment services, they must have an 'Aadhar Card' (Indian Resident Card), which they cannot obtain because they cannot secure a legal rent agreement. When the participants tried to find a way, several authorities misguided them to adopt specific illegal methods.

Participants mentioned a lack of internship and job opportunities for ISs because of their regional differences. Unlike most other countries where students have the opportunity to earn a living alongside education, they have no such opportunities here and have to rely on their guardian or some scholarship. If they do find an opportunity, they are often asked for different kinds of

identification documents that they are unable to provide due to legal restrictions. The participants also mentioned that companies do not prefer to employ ISs because they believe ISs will not adapt to the "Indian way of working" and hence might not be able to handle the work. That is why they get turned away from these opportunities often.

5.1.4 Language Barriers and Social Isolation

The language emerged to be a significant barrier for the participants while communicating with people outside and inside the college. Often, professors speak in regional languages during lectures, excluding certain ISs from the discussion. The participants mentioned that they had friends from African countries and Russia who could neither understand the lectures nor find anyone to converse with because of the lingual barriers. In this respect, they felt the need to connect with their local community after they arrived in India as it would give them a sense of comfort and belonging.

Participants also noted some discrimination in social settings, as many of their classmates did not seem to understand their backgrounds. These barriers limited the number of social interactions ISs had with other students, which led to a feeling of isolation, anxiety, and depression. Participants stated that they were confused about the variety and functions of the college societies and clubs due to the lack of guidance provided. The reason is that most of the societal orientations had taken place before many of the ISs got admitted. If and when the participants could obtain a place in college societies, they felt some degree of bias. They felt socially discriminated against, and their peers did not mingle with them very much. They expected some initiatives from the faculty to tackle this issue but to little avail. All of this, thus, aggravates the problem of social isolation as the participants start to feel that the society comprising the peers, faculty, and local community has rejected them altogether. In the above context, the participants also highlighted the importance of IS groups comprising all ISs in a college. Such a group enables them to seek guidance from the senior ISs on dealing with specific issues common to them all.

5.2 Quantitative Findings- Exploratory Factor Analysis and Cluster Analysis

This section discusses the findings from quantitative analysis comprising the EFA and Cluster Analysis. It elucidates the factors that could have had a bearing on the student's overall satisfaction with the university and then segments the students into clusters based on these factors.

5.2.1 Exploratory Factor Analysis

An exploratory factor analysis was conducted to achieve two objectives. The first objective was data summarization- identifying the underlying themes explaining the contentedness of ISs towards the university's several aspects. The second objective was data reduction, i.e., identifying representative variables from the set of more extensive variables for use in subsequent cluster analysis. Guided by the literature review, 16 variables were chosen to perform EFA. Going by the sampling adequacy rule of thumb, one must ensure the sample size such that there are at least five cases per factoring variable[20]. So, given that 16 variables times 5 cases are 80 cases, our analysis based on a sample of 99 students conforms very well to this rule. These 16 variables were checked for the presence of outliers using a confidence interval approach. In the process, any standardized Z score or the standard normal variate outside the range of ±2.5 standard deviations qualifies as an outlier. The data on 16 variables was free from outliers, so one of the crucial assumptions of no significant outliers in the data to perform factor analysis was satisfied.

The factor rotation method aims to achieve more straightforward and meaningful factor solutions. So, to select the rotation method in factor analysis, at first, a factor analysis with the Direct Oblimin method, i.e., an oblique method of rotation, was conducted. The component correlation matrix was then adjudged to look for significant correlations (any correlation higher than 0.32). Since none of the components depicted such a high correlation, it was concluded that an orthogonal method of extraction could be used. Later, all three orthogonal methods (Varimax, Quartimax, and Equamax) were employed to finalize the Varimax method. It gave an adequate interpretation of the obtained components, and the results were statistically sound.

Next, to assume factorability for the data, a few important assumptions must be satisfied: the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy being the first. Additionally, Bartlett's Test of Sphericity required that there are adequate correlations between the variables to make the data suitable for dimension reduction. The null hypothesis of Bartlett's test is that the correlation matrix is an identity matrix. If we reject

the null hypothesis, we can say that data is suitable for reduction into components.

Literature advises that if the KMO measure is greater than 0.5[21]; Bartlett's Test of Sphericity is significant, and the value of the determinant is not equal to 0, then we can assume the factorability of the data and proceed with factor analysis[22].

Here, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was 0.835, greater than 0.5; therefore, the sampling adequacy condition was met. Moreover, a KMO above 0.8 is considered meritorious and indicates an adequate sample size. Further, the anti-image matrix reveals Measures of Sampling Adequacy (MSA) for the overall sample. The diagonal of the anti-image matrix showed that each value was above 0.7, and most of them were above 0.8. That was satisfying and indicated

that the sample overall was adequate, and there was no need to remove any factoring variable from those included. The result for Bartlett's Test of Sphericity was also significant (p = 0.000 i.e., p < 0.05). The value of the determinant as observed from the correlation matrix was 0.001, i.e., was not equal to 0, and greater than 0.0001 is recommended. The factor model was also appropriate as the commonalities were above 0.6, with only three nearing 0.5. That is because a communality below 0.4 means that the variable is not well represented in the factor space.

Further, the four factors so extracted could explain 63.77 percent of the variance in the data. A solution that accounts for 60 percent of the total variance is satisfactory in social sciences[20]. The Scree plot criterion also confirmed the four factors as the final solution since the curve flattened beyond the fourth factor.

Table 1. Rotated Component Matrix

Variable Notation/Name	Variable Meaning	Component/Factor			
		1	2	3	4
Social Integration as Expected	Extent to which expectations concerning the social integration were fulfilled	.817			
Personal Development as Expected	Extent to which expectations concerning the personal development were fulfilled	.813			
Make You Industry Ready as Expected	Extent to which expectations concerning the industry preparedness were fulfilled	.793			
Quality of Course as Expected	Extent to which expectations concerning the quality of course was fulfilled	.764			
Student Competition as Expected	Extent to which expectations concerning the competition between students were fulfilled	.735			
Comparison to Int Standards as Expected	Extent to which expectations from the course in comparison to international standards were fulfilled	.674			
International Standard of Course as Expected	Extent to which expectations concerning international orientation of the course were fulfilled	.658			
Easy to Understand Lectures	Level of agreement with the statement - Easy to understand classroom lectures	.451			
Admission Process_College	Level of ease concerning the fulfilment of admission process in the college		.811		
Ease Finding Accomodation	Level of ease in finding an accomodation		.647		
Admission Process_FSR	Level of ease concerning the fulfilment of admission process in the FSR		.575		
Navigate Website	Level of ease in navigating the university website to find desired information about the admission process*			.792	
Understand Info_Admission	Level of ease in understanding the information about the admission process*			.635	

Fairness_Hostel	Degree of fairness of the admissions process on the aspect obtaining a seat in the college hostel				.866
Fairness_Nationality	Degree of fairness of the admissions process on the aspect of coming from a particular nationality				.732
Fairness_Charged Appropriately	Degree of fairness of the admissions process on the aspect of being charged appropriately while securing admission				.539
*admission process refers to the application procedure, eligibility for admissions, documents to be submitted and deadlines related to applications					

Source: Authors' calculations

Four new components or factors were successfully constructed after performing the Varimax Rotation Method with Kaiser Normalisation. Next, each variable's factor loadings were evaluated to identify the latent theme underlying each component and a variable's contribution in determining the factor structure obtained. Factor loading is the correlation between each variable and the factor, and thus a higher loading makes the variable representative of that factor. Rotated Component Matrix summarises the factors in a simple structure. It has been reproduced in Table 1. For data summarization in EFA, each factor has been identified with a particular name and then explained in detail as below:

1. Fulfilment of expectations of foreign students with regards to enrolment abroad - It comprises variables highlighting whether the student's expectations were fulfilled concerning various aspects of their enrollment abroad. The aspects are social integration, personal development, making a student industry ready, quality of course curriculum, competition between students, course expectations compared to international standards, international orientation of course, and ease of understanding classroom lectures. The variable 'Easy To Understand Lectures' loaded weakly on this factor with a factor loading below 0.5. However, it was still meaningful as factor loadings in the range of ±.30 to ±.40 are considered to meet the minimal level for interpretation of the structure[20].
2. Ease in fulfilment of admission and accommodation procedures - This component comprises three variables that depict the ease with which a student can fulfill the admission process at college, at the FSR, and can find an accommodation.

3. Ease of understanding admission process - This factor underlines the ease with which a student can understand the information about the admission process in general and navigate the university's website providing information online. That specifically refers to the information on the application procedure, eligibility for admissions, documents to be submitted, and deadlines related to applications.
4. Degree of fairness of admission process - This brings out two main concerns of fairness - one, with regards to being fairly admitted irrespective of one's nationality, and second, fairly obtaining accommodation in a college hostel.

With the understanding of the results above, meaningfully and highly significantly loading variables were identified to become clustering variables in the subsequent analysis. That is the part where we achieve the data reduction objective of EFA.

5.2.2 Cluster Analysis

The results from EFA were utilized to arrive at a few comprehensive variables to proceed further with cluster analysis of the sample data. Highly significantly loading variables, i.e., variables with factor loading greater than 0.75, were considered to be representative of the characteristics of that particular factor as a whole and hence were chosen as a clustering variable for obtaining student profiles in the form of clusters. These seven variables so chosen were:

1. The variables 'Social Integration as Expected', 'Personal Development as Expected', 'Make You Industry Ready as Expected', and, 'Quality of Course as Expected' were chosen to represent the first factor depicting the

fulfilment of expectations of foreign students with regards to enrolment abroad.

2. The next variable chosen was 'Admission Process_ College' to represent the factor showing the level of ease in fulfilment of admission and accommodation procedures.

3. The variable 'Navigate Website' being representative of the factor showing the level of ease in seeking relevant information and assistance, explains how easy it was for students to navigate around their college website to find the required information.

4. The representative of the fourth factor whose underlying theme is the fairness level of different admission related procedures, is the variable 'Fairness_ Hostel' which indicates how fair was the admission process for getting a seat in the college hostel.

Additionally, as per the findings from a study[7], the reputation and ranking of the institution and academic department, and the cost and affordability of the program of study are important factors. So, we incorporated these factors in addition to the six continuous variables explained above. So, two categorical variables were chosen to represent the aforementioned two critical factors influencing an international student while considering admission into the university. These are – 'Affordability of Education' and 'Academic Reputation,' where the former refers to the economic affordability of the education programs and the latter refers to the university's academic reputation. The variables are categorical as they take a value of '1' if a student opted for 'Affordability of Education' or 'Academic Reputation' as a response to the question "why did you choose to study in DU?" and a value of '0' if the student did not opt for this as a reason, respectively. A two-step cluster analysis technique is used since our eight variables described so far consisted of two nominal, i.e., categorical, and six scales, i.e., continuous data types. Also, for this reason, the log-likelihood option for distance measure is chosen in a two-step cluster analysis. If the data are a mixture of categorical and continuous variables, one can use only the log-likelihood criterion. There are two criteria for automatically determining the number of clusters: BIC (Schwarz's Bayesian Information Criterion) and AIC (Akaike's Information Criterion). It is seen that the results do not vary across the two criteria, so the results are shown for just the BIC criteria. The auto clustering statistics show that the BIC coefficient is the lowest for the two clusters. The ratio of distance measure also confirms this as the ratio is the largest at a value of 1.774, which indicates a two clusters solution. Resultantly, two clusters were obtained as shown in Table 2 below.

Furthermore, the goodness of a cluster solution can be quantified by some measures. A good cluster solution is one where the elements within a cluster are similar (cohesion or homogeneity within a cluster), and the clusters are relatively different (separation or heterogeneity between them). A popular measure is the silhouette coefficient, which measures both cohesion and separation. For each element in a cluster, the silhouette measure is the difference between the smallest average cluster distance and the average within-cluster distance, divided by the larger of the two distances. The silhouette measure for a cluster is just the average of the silhouette measures for the cases within the cluster. It ranges from −1 to +1. Our Silhouette measure is 0.2, greater than 0, indicating that the obtained cluster solution is good[23].

As shown in Table 2, the sizes of the first and second cluster are 42 and 57 respectively. The ratio of cluster sizes (largest to smallest) is 1.36 which indicates appropriate cluster sizes. That is so because a solution with a small number of larger clusters is better instead of obtaining many small clusters[23].

Further observing the importance of each variable in determining the formation of the two clusters, it is quite clear that the categorical variable 'Academic Reputation' is like a swamping variable and hence the most important factor, followed by the variable SocialIntegration as Expected, Affordability of Education, Personal Development as Expected, Fairness_Hostel, NavigateWebsite, Make You Industry Ready As Expected, AdmissionProcess_College, and Quality Of Course As Expected. The Cluster Chart is as shown in Table 2 below.

The inferences from cluster comparison are explained as follows. The first cluster (as shown on the right in Table 2) contains no student (0% of the students in cluster 1 are the ones whose responses are coded '1' for the variable 'Academic Reputation') for whom academic reputation is a reason to join the university. Only a few of the students in this cluster (33.3% of the students in cluster 1 are the ones whose responses are coded '1' for the variable 'Affordability of Education') consider the affordability of education in the university as a compelling reason in one's consideration of the university. The second cluster is just the opposite. It comprises all (100% of the students in cluster 2 are the ones whose responses are coded '1' for the variable 'Academic Reputation') those for whom academic

Table 2. Cluster Chart

Cluster 1 (Size = 42)	Cluster 2 (Size = 57)
Academic Reputation 1 (0%)*	Academic Reputation 1 (100%)*
Affordability of Education 1 (33.3%)*	Affordability of Education 1 (49.1%)*
SocialIntegration as Expected (3.10)**	SocialIntegration as Expected (3.47)**
Personal Development as Expected (3.0)**	Personal Development as Expected (3.35)**
Fairness_Hostel (2.76)**	Fairness_Hostel (3.05)**
Make You Industry Ready as Expected (2.81)**	Make You Industry Ready as Expected (2.98)**
Quality of Course as Expected (2.90)**	Quality of Course as Expected (3.05)**
Admission Process_College (3.36)**	Admission Process_College (3.19)**
Navigate Website (3.10)**	Navigate Website (2.82)**
Note: *Values in parenthesis indicate frequency of respondents whose responses are coded 1 on the variable **Values in parenthesis indicate the average score on the variable	

Source: Authors' calculation

reputation is a reason to join the university. Further, it has a comparatively larger percentage of students (49.1% of the students in cluster 2 are the ones whose responses are coded '1' for the variable 'Affordability of Education') agreeing to the affordability of education as a reason to join the university.

Moreover, students in the second cluster felt that their expectations regarding social integration, personal development, quality of course curriculum, fair allotment of a hostel, and college enabling them to become industry-ready were better fulfilled than the students in the first cluster. That can be understood as reflected by higher average scores on these variables in comparison to clustering 1 - the variables 'Social Integration as Expected', 'Personal Development as Expected,' 'Quality of Course as Expected,' 'Make You Industry Ready as Expected', 'Fairness_Hostel' have scores 3.47, 3.35, 3.05, 2.98, 3.05 respectively in cluster 2. In contrast, the scores are 3.10, 3.0, 2.9, 2.81, 2.76 respectively in cluster 1.

However, two more aspects make the cluster comparison even more intriguing. Firstly, students in cluster 1 found it easier to navigate the university's website than the respondents in cluster 2 on average. That means that the students in cluster 1 found the university's website more effective in finding information on the application procedure, eligibility for admissions, documents to be submitted, and deadlines related to applications. Secondly, students in cluster 1 found it easier to complete the admission process (including the attestation of transcripts and/or submission of online and offline documents) than the respondents in cluster 2. That is evident from a higher average score in cluster1 of 3.36 over a 3.19 score in cluster 2 on the variable 'Admission Process_College'.

The qualitative and quantitative analysis findings have been discussed in light of the literature in the next section.

6. Discussion

While the findings generally support what challenges have been identified in the existing literature, this study provides a reflective understanding of the international student experience and their perceptions. The study, therefore, provides policy suggestions to the Indian

universities and policymakers to build strategies on how to enhance the satisfactory experience of students. This section discusses the findings in light of the literature and the authors' own interpretations.

The FGD revealed that the most of the participants expressed dissatisfaction with admission procedures done through FSR, ICCR, and the university administrative offices. EFA also pointed out ease in fulfilling the admission process as an important factor. From CA, too, it can be seen that students in the larger cluster were not very satisfied with the admission process compared to the other cluster. Interestingly, the 'ease of admission procedures' was also one of the factors that influenced the choice of university for scholars in a UK-based study[10].

Next, our findings corroborate with those of a study[14] that has found that an unfamiliarity with the university's evaluation methods can also lead to anxiety for ISs, hindering their confidence. Our study too finds through the FGD that an unfair weightage of their student's academic performance affected their self-esteem. Students mentioned in the FGD that they also faced several challenges in creating a bank account. College was of little help in getting the bank account made smoothly. A study[24] also mentions that assistance in setting up bank accounts can influence first impressions of the institution.

It has been established that work opportunities are limited to financial issues, but meaningful work can also help these students adjust to their surroundings and the local environment[14]. Therefore, a lack of such opportunities hampered their professional exposure. The variables of personal development, quality, course, industry preparedness, and international course standards were all highly significant in the first factor identified in the EFA. Additionally, the participants in the FGD discussed the challenge of not being able to get meaningful internships and job opportunities and to study skill-enhancement courses as a part of the curriculum. This is, therefore, a matter of concern.

Further, the pain points in cluster 1 students are those factors that hold relevance in the student experience after admission into the college. In other words, these admissions-related and online assistance processes occur before the ISs arrive at the college. However, after fulfilling the admission formalities and arriving at the college, it can be said that they are not able to integrate well socially, nor do they find specific admission processes fair, primarily

securing hostel accommodation. Further, they do not feel considerably confident that the university curriculum can impart the course quality as expected and that the college contributes to their personal development and industry preparedness. For these students, the looming concerns are beyond academic reputation and affordability of education. Even in the FGD, issues of social isolation arising out of language barriers and other concerns were extensively brought to the fore, thus highlighting the seriousness of this challenge. We could connect this to what other research studies found too. For instance, the feeling of social connectedness is an essential factor that affects the success of an ISs[15], which was missing for the participants. In a similar strand of work[14], the scholars also found that establishing a social network was a significant predictor of social adjustment to college for ISs. Also, a welcoming university and community environment has been fount to influence the mental health of ISs greatly[25].

About cluster 2, while their college experience was overall satisfactory, they found the admission processes and website navigation challenging. When students find the information about a course/college less clear or transparent, they are likely to develop unrealistic expectations. When these expectations are not met, students may experience anxiety too[14].

Finally, our study suffers from some limitations. Firstly, the research studies on the experiences of ISs at the DU are non-existent. This paper's attempt to contribute new knowledge on student perceptions suffers from the following limitations, which must be considered while concluding research outcomes. As the sample of students surveyed belongs to just one particular albeit huge varsity in India, the findings are not generalizable to India. They can be, however, generalized to universities with similar characteristics.

Additionally, students had a disturbed mindset at the initial stages of the pandemic. Their altered mindset at that time might have been reflected in their responses. Finally, future research in this study would try to model the decision of an international student to study in India. That is possible by selecting a sample that comprises students who had considered India an option to study but did not choose it, along with those who did consider and chose India only. That kind of study would enrich the understanding of India as a desirable place to study for any mobile student.

7. Conclusion

In a scenario wherein the countries, including India, are trying to promote IoHE, it is imperative for the policymakers and stakeholders involved to undertake steps that can help make the experience of an IS satisfactory and, at the same time, attract more ISs through recommendations. This study helps identify the challenges by gaining an in-depth understanding through an FGD. The challenges highlighted here also intersect with the factors found through quantitative analysis. These challenges are primarily administrative issues, quality curriculum deficiencies, accommodation search challenges, language barriers, lack of internship and job opportunities, and social isolation. These are, therefore, the key factors that affect the satisfactory experience of an IS.

From the segmentation of ISs into two clusters, the study offers a reflection for the university on how well it has performed on specific aspects of the ISs. The findings from our study are comparable to the existing studies, and they are discussed in detail in the discussion section. As our study is a 'reflective' study, it offers the following policy suggestions which should be undertaken to expand the satisfied group of international students.

1. The university must streamline the admission procedures with better coordination between the FSR, ICCR, university administrative offices, and the college administration. The university must ensure a fair and transparent college and hostel allocation process for ISs. There is also an urgent need to fill the vacuum of necessary assistance and services provided by the FSR in addressing the issues of ISs. Preferably, there should be a dedicated ISs office in each college to facilitate coordination and undertake other roles like the orientation of ISs, counseling services, and grievance handling. Findings from the study[14] also suggest that universities should appoint culturally sensitive advisors to guide international students through their academic adjustment process. Given that cluster 2 in our study is a relatively larger cluster and expressed dissatisfaction over the admission process, streamlining these admissions-related issues on a priority basis could help the university in providing a satisfactory experience to the ISs.
2. Greater attention at the local level, i.e., college-level, should help enhance their satisfactory experience at the university. Steps to enhance social integration should be undertaken. These could include cross-nationality events educating students about different cultures, starting from class group activities to college-level events like an international students' week, which celebrates different cultures. In summary, there is a substantial need for the university to emphasise on social, cultural, and academic integration of ISs. To create an affirmative experience for the ISs, the domestic students, faculty, and the host city populations need to become proactive in welcoming and communicating with ISs[16].

Finally, IoHE needs to be guided by national governments and not merely neoliberal economic principles of trade for economic gains. It needs to aim at socio-cultural integration and not just commercial and market integration[5].

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