

## **Determinants of Working International Students' Life Satisfaction: The Mediating Role of Sense of Belonging**

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### **Abstract**

*South Korea is in the limelight in the past decades as Korean universities races for internationalization. As the number of students studying abroad tremendously increasing, there has been a growing need for higher education institutions to understand international working students' life satisfaction and sense of belonging. The aim of this research is to outline which determinants affects life satisfaction as mediated by sense of belonging. With the samples size of 102 respondents, the proposed research model was examined using structural equation modeling (SEM) and SPSS. Results show that all determinants (Recognition, Quality of Education, Experienced Difficulties in Public Service and Understanding Korean Language) were positively significant toward Sense of Belonging. Likewise sense of belonging holds the positive indirect significant effects of the four determinants to life satisfaction.*

**Keywords:** *Higher Education Institution, Life Satisfaction, Sense of Belonging, Recognition, Quality of Education, Understanding Korean Language, International*

## **1. INTRODUCTION**

For the past decades, Korean universities have been expanding their educational program offered to international students. According to Statista, an online statistics publication, from 2010 to 2021, international students have gone up from 83 thousand from the previous year to approximately 152 thousand international students currently studying in different Korean universities [20]. From undergraduate study programs, master's, doctorate, and Korean language programs, international students are flocking into Korean universities for the best education Korea can offer. Undergraduate programs were the most popular study program among international students in South Korean higher education institutes, followed by language programs (Ministry of Education). One of the key reasons international students choose Korean universities is scholarship, easier visa process, geographical proximity, and safety [21]. Although, until 2011, there was a steady incline in the number of international students enrolled in Korean universities, between 2012 to 2014, this trend was reversed.

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Nevertheless, as the Korean government has introduced a diversity of funding and policy initiatives aiming for the growth of the number of international students studying in Korea, including adjusting the visa restrictions, increasing scholarships, and extending the English-taught courses, the trend of international students' study in Korea has begun to shift upwards. Specifically, the government had funded 18.8 billion won (US\$16 million) in 2015 to support the marketing and recruitment purposes of Korean universities.

According to the Ministry of Education, Korean universities have been funded through GKS (Global Korea Scholarship) to invite international students to Korea. Aside from the Korean government's effort to further increase international student mobility in Korea, universities themselves also tried to increase their international students' population. By way of an international exchange program. Likewise, some Korean universities offer a work and study program for international students. Although, the Korean Ministry of Education reported that international students felt very satisfied with the Korean education system (Source: Ministry of Education, 2016). Yet, there has been rarely discussed about the international students' satisfaction, while the sense of belonging of students in the community would highly impact student retention and recruitment.

Student satisfaction has often been linked with various academic and social integration dimensions, resulting in student retention and recruitment. Still, some research findings criticize the many satisfaction measurements possess a deficiency of validity due to disproportionate variables contaminating the result (e.g., students more likely to value the educational success as their satisfaction) [5, 10]. According to [10], the university should identify their students' satisfaction and the significant factors in student life and, simultaneously, successfully meet students' demands and needs.

Nonetheless, there is a lack of research on students' satisfaction focusing on international students enrolled in a study and work program in Korean universities. Only uses linear analysis, lacking structural analysis, and conceptual model. Only studies on Korea focus on general international students. The needs of study and work programs differ from the exchange program or the government-funded programs. First, we argue that these student categories vary (scholars, exchange, study, and work). Korean universities must understand these particular international students' satisfaction rates within a variety of determinants. Secondly, we argue that if the students feel a sense of belonging, it is pervasive that students' satisfaction arises as to the outcome of the university's program. With this research (contributes to knowledge in that), we will make the inference that other universities may effectively enhance students' sense of belonging, resulting in student satisfaction is noteworthy. This study aims to outline which determinants would suit students' life satisfaction who belong to study and work programs in Korean universities. Secondly, this study will provide universities with a framework to enhance their existing international students' study and work programs. In doing so, this study empirically examines this research question:

1. What are the key determinants of international students' satisfaction who are enrolled in Korean universities' study and work programs mediated by a sense of belonging?

## **2. LITERATURE REVIEW**

### **2.1 Definition of Students' Life Satisfaction**

The meaning of students' life satisfaction would vary on the purpose of the research. This study refers to [11]'s definition of student satisfaction, which is "a short-term attitude resulting from an evaluation of a student's educational experience when the actual performance exceeds or meets the student's expectations" [11]. Indeed, they enumerate the combination of a "student's academic, social, physical, and even spiritual

experiences” [11, 34]. Yet, some research findings criticize the preceding satisfaction measurements possess a scarcity of validity due to disproportionate variables contaminating the result (e.g., students more likely to value the educational success as their satisfaction) [5, 10]. Notwithstanding, with the trend of increasing higher education globally and regionally, universities bring their attention to students’ satisfaction in terms of student recruitment and retention [1]. Although there is a scarcity of data that focuses on students who both study and work in Korean universities, this research was modified by referencing College Student Satisfaction Questionnaire (CSSQ), which was introduced by [34] and a few additional research on international students’ satisfaction [10, 21, 22].

## **2.2 Definition of Sense of Belonging**

[1] defined a sense of belonging as a perceiving sense of unity in their community with significant commitment and contribution to the institution [1]. The previous research evident in the sense of belonging is one of the most significant factors contributing to students’ satisfaction. [19] found students’ sense of belonging might be triggered by the “quality of students’ social interactions, students’ selection of academic programs, and their use of support services” [19]. Overall, research has confirmed that a sense of belonging is significantly related to students’ overall satisfaction. Hence, this paper postulates on the ten factors of sense of belonging that mediate international students’ satisfaction, especially those who study and work in a Korean university.

### **2.2.1 Factors of Sense of Belonging**

Several findings have endorsed the strong impact of a sense of belonging on students’ satisfaction. Still, there is little research on the level of satisfaction in international students studying and working in Korean universities [1]. Therefore, a sense of belonging is a less investigated criterion that examines international students’ satisfaction attending Korean universities for studying and working. A few research on international students with cultural similarities to Korea, but valuable to include in their findings, argues that students from culturally like Korea feel more attached than other Western international students [1]. Thus, we researched several associated factors (known as the second factor) that cause and affect a sense of belonging (a.k.a., the first factor). Those second factors are 1) recognition, 2) working condition, 3) treatment experienced as an international student, 4) understanding Korean language, 5) quality of education, 6) socializing with Korean and international students, 7) student compensation, 8) experiencing difficulties at public services, 9) being in the East Asian cultural sphere, and 10) satisfaction in academic and education quality, in further.

## **2.3 Recognition**

Regarding CSSQ, recognition is “attitudes and behaviors of faculty and students indicating acceptance of the student as a worthwhile individual,” which plays a significant role in the sense of belonging, resulting in students’ satisfaction. By examining the “student-centeredness,” the considerable number of students’ responses demonstrated high rates of “having an enjoyable experience,” “feeling a sense of belonging, ... staff that is caring and helpful.” [10]. The “instructional effectiveness” was found crucial in students’ satisfaction by asking accessibility to various courses and the effectiveness of the university’s support [10]. International students in Korean universities reported the “appreciation of the university’s unique culture of strong camaraderie among students” led them to study in Korean universities [21]. In detail, [22] enumerates the condition of scholarships, low living costs, and unique programs that are mediating factors towards feeling a

sense of belonging [22]. According to [7], they are immensely dependent on the host government and host universities' scholarships. From the psychological perspective of students feeling being recognized and compensated is whether the amount of study (input) and academic outcomes (output) relatively fulfill students' needs and goals [34].

#### **2.4 Understanding Korean Language**

Considerable amounts of research on international students' overall satisfaction tend to, unsurprisingly, signify language proficiency positively correlates to better adaptation in that community [26]. [22] identified the different engagement levels towards international students depending on their Korean language proficiency. Then, power differentials and discrimination would occur between domestic and international students [22]. Most international students have been reported as came from Asian countries because they favored Korean universities to learn the Korean language and culture. While they rarely have Korean-taught classes, the academic courses are taught in English according to the Korean government approach of English-medium instruction (EMI). [22] found that EMI makes the Korean case as unique as her national language, nor the first language of the international students is English. While EMI in Korean universities aims for better communication inside and outside of the class between colleges and faculty members, the overemphasizing atmosphere of EMI often ruins the efficacy of learning and domestic language attrition [8]. Consequently, the EMI environment stimulates the difficulties of international students getting along with domestic students. In a similar vein, English proficiency might cause the power dynamics of international students who are merely capable of English or Korean, and they would feel isolated and less valued [21].

#### **2.5 Quality of Education**

The satisfaction in educational quality has been explored positively and positively, impacting international students' satisfaction [1]. Refer to CSSQ, Quality of education regards as "competence and helpfulness of faculty and staff, including advisors and counselors, and the adequacy of curriculum requirements, teaching methods, and assignments" [34]. A study by [11] defined student satisfaction as "a short-term attitude resulting from an evaluation of a student's educational experience resulting when actual performance meets or exceeds the student's expectations" [11]. The leading factor in choosing Korean institutions and universities of international students from Asia is the high quality of educational programs and satisfaction with their academic involvement [21]. A few examples would be "academic advising" and "instructional effectiveness" for the two most crucial dimensions of students' educational experience [11].

#### **2.6 Experiencing Difficulties at Public Services**

Universities are heavily relying on public policies, which embrace the interaction of student-educational institutions - as subsidiary content of education. Beyond the core quality of studying abroad might be service quality, such as student visas, educational funding, and labor [30]. Furthermore, another study by [36] proposed that the quality of service defined by students is the "ability to create career opportunities, issues of the program, cost/time, physical aspects, and location. The combination of student support services and student satisfaction plays a significant role in college students' success. Their success might predict successful college completion and enhanced employability [3]. Specifically, the service-associated concerns in Korean universities, [1] reported that more than half of their sample of international students in Korean universities identified they were treated fairly and respectfully in Korea according to the public issues. In other words, the

public services provided by the host universities and the nation would associate with the international students' satisfaction with overall university life when their needs are met with their expectations [2]. Hence, there is a scarcity of information about interactions between the struggles of adaptation and student satisfaction at Korean universities. This research would focus on the difficulties of staying in the nation and university while maintaining their status and other additional issues of being students in Korean universities.

### **2.7 Relationship between a Sense of Belonging and Students' Life Satisfaction**

[18] contend that discerning students' sense of belonging may be key to understanding how certain forms of social and academic experiences influence students. Further, student satisfaction (attitude) that would be mediated by having satisfying experiences in the previous dimensions to stay in the university (intentions), eventually positive effects on student retention and recruitment [1, 37]. Accordingly, the university should identify their students' level of satisfaction and the significant attributing factors in student life and, at the same time, successfully meet students' demands and needs [11]. Therefore, we postulate that the association between student satisfaction and a sense of belonging is pervasive and noteworthy.

## **3. METHODOLOGY**

This study was targeted and limited to international students studying at Hanil University, Republic of Korea, and working in Korea. The whole sample was comprised of 102 students' responses. However, there were missing data by a few students for identifying their sex (biological), education level, and country of origin. Those demographics had been defined by the university administrator who has the demographic information of the students. Since the survey was attempted to investigate the sources of providing a better environment for study and experiences in the university, and there were no significant issues associated with the survey responses, we have not discarded any students' responses for analysis. The questionnaire was formulated based on the CSSQ manual with two dimensions and the previous literature review for additional measurements to achieve the study's objectives. The questionnaire was first piloted on a smaller sample of international graduate students enrolled in Hanil University, Korea. There was a minor modification on Five-point Likert Scale, rather than labeling whole answers as 1) Strongly disagree, 2) Disagree, 3) Neutral, 4) Agree, and 5) Strongly agree, we added 1) Strongly dissatisfied, 2) Dissatisfied, 3) Neutral, 4) Satisfied, and 5) Strongly satisfied for the relevance to the questions. The instructor emailed all international undergraduates and graduates within his classes at Hanil University.

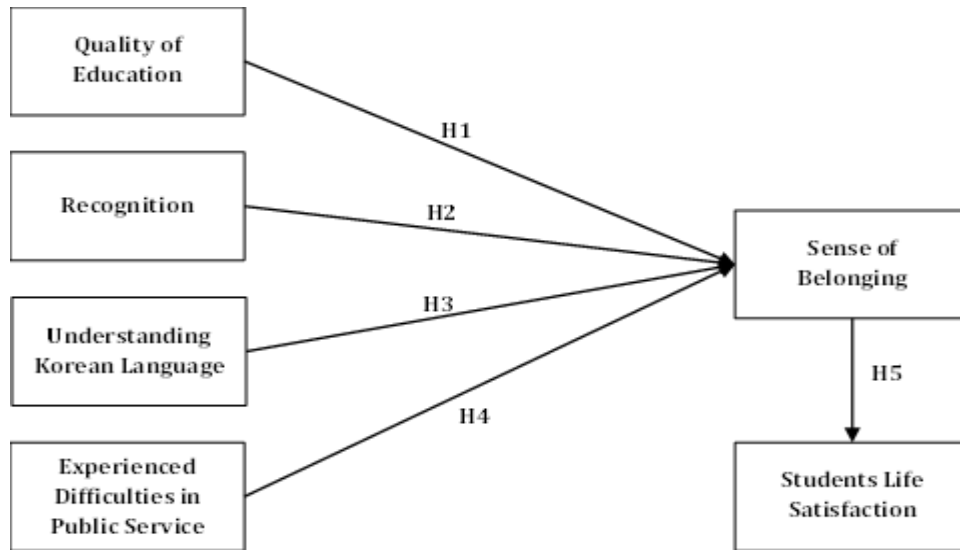
The survey was requested to complete online via the Google Survey form, around 10 to 15 minutes. It was administered over four weeks, starting on the 2nd of July 2021 and closing on the 30th of July. Participants of this study were included with multiple ethnicities. Based on the data gathered from the responding students' demographic, about 90 or 88.2 % of the respondents were male, while 12 or 11.8% of respondents were female. Among the 102 respondents, 55 students were identified as in the range of 18-25 years old (53.92%), 37 students were aged between 26-35 years old (36.27%), and 10 students were aged between 36-45 years old (9.80%). For the educational levels of the respondents, 40.2% percent composed of 41 undergraduates, while 59.8% consisted of 61 graduate students. For ethnicity, most of the respondents were from Pakistan, which comprises 73 or 71.6%, while 14 or 13.7% were from Vietnam, another 14 or 13.7% were from Uzbekistan, and lastly 1 or 1% from Kenya. Details of the demographic are shown in **Table 1**. As shown below in **Figure 1**, describes the structural presentation of our research model which comprises of Quality of Education, Recognition, Understanding Korean Language, and Experience Difficulties in Public Service as independent variables while Sense of Belong as dependent and mediator, Life Satisfaction as overall dependent.

**Table 1. Demographic**

Gender	Frequency	Percent	Education Level	Frequency	Percent
Female	12	11.8	Undergrad	41	40.2
Male	90	88.2	Graduate	61	59.8
Total	102	100	Total	102	100

Age	Frequency	Percent	Country of Origin	Frequency	Percent
18-25 years	55	53.92	Kenya	1	1.0
26-35 years	37	36.27	Pakistan	73	71.6
36-45 years	13	9.80	Uzbekistan	14	13.7
45-55 years	0	0	Vietnam	14	13.7
Total	102	100	Total	102	100



**Figure 1. Research model**

**3.1 Hypothesis**

- H1. Sense of belonging meditates the relationship between quality of education and Students' life satisfaction.
- H1A. Quality of Education has a significant effect on student's sense of belonging.
- H2. Sense of belonging meditates the relationship between recognition and Students' life satisfaction.
- H2A. Recognition has a significant effect on student's sense of belonging.
- H3. Sense of belonging meditates the relationship between understanding the Korean language and Students' life satisfaction.
- H3A. Understanding the Korean language has a significant effect on student's sense of belonging.
- H4. Sense of belonging meditates the relationship between experience difficulties in public service and Students' life satisfaction.
- H4A. Experience difficulties in public service have a significant effect on student's sense of belonging.
- H5. Sense of belonging has a significant effect on student's life satisfaction.

### 3.2 Adequacy and Reliability

**Table 2. KMO and Bartlett's test**

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.810
	Approx. Chi-Square	1989.793
Bartlett's Test of Sphericity	df	300
	Sig.	.000

**Tabel 3. Construct Pattern Matrix<sup>a</sup>**

	Factor					
	QE	SOB	RGT	SATF	UKL	EDPS
QE1	.944					
QE6	.938					
QE4	.855					
QE3	.832					
QE2	.782					
QE5	.771					
SOB3		.951				
SOB1		.890				
SOB2		.884				
SOB4		.879				
SOB5		.753				
RGT2			.912			
RGT3			.904			
RGT1			.707			
RGT4			.661			
SATF4				.837		
SATF5				.831		
SATF3				.796		
SATF2				.691		
UKL1					.902	
UKL4					.792	
UKL3					.774	
EDPS3						.873
EDPS4						.755
EDPS2						.734

Extraction Method: Maximum Likelihood.

Rotation Method: Promax with Kaiser Normalization.<sup>a</sup>

. Rotation converged in 6 iterations.

Note: SOB = Sense of Belonging, UKL = Understanding Korean Language, RGT = Recognition, QE = Quality of Education, EDPS = Experience Difficulties in Public Space, SATF = Student Life Satisfaction

The variables of this study were adopted from previous research, but the items were constructed and adjusted to fit the need of the study. With this in mind, in order to identify if the data adequately qualifies for further analysis, a KMO and Bartlett's test for sampling adequacy was obtained. [24] recommended that obtaining Kaiser-Mayer-Olkin (KMO) and Bartlett's test of Sphericity would solidify the adequacy of the dataset. This

study obtained a KMO of .810, roughly above the recommended value of .70, as shown in **Table 2** [23]. Since the items of the variables were self-constructed to fit the need for the research. As part of the exploratory factor analysis (EFA), a pattern matrix was obtained to check for the adequacy and the importance of intercorrelations between the variables being studied. **Table 3** has shown that all items loaded together in their expected variables except for two items in following each variable of SATF, UKL and EDPS have shown low loading in and therefore eliminated in the process. Thus, the final pattern matrix has shown no cross-loadings with a total variance explained (TVE) of 71.015 %, which is an indication that the construct is adequate for further analysis. **Table 4** shows the Cronbach's Alpha ranging from .821 to .948, indicating adequate reliability and demonstrating sufficient convergent validity. There were no cross-loading and all loading in the pattern matrix were all above 0.60, as recommended by [17, 35].

**Table 4. Variable Names and Cronbach's Alpha**

Items	Cronbach's Alpha	Variable Name
SOB1 - I feel a sense of belonging in my university SOB2 - I feel my opinion is considered as valuable SOB3 - I feel my classmates and school staffs care about me as a person SOB4 - I see myself as a part of the college community	.948	Sense of Belonging
UKL1 - The university provides experiences" [11];[34]. Yet, essential Korean class UKL3 - Korean language classes at Hanil University improve my Korean language skill UKL4 - The Korean language helps me in my daily communication with the Korean people.	.861	Understanding Korean Language
RGT1- I feel the feedback and evaluation regarding my performance is fair RGT2 - I feel the supervision and opportunities are fair RGT3 - I feel strong relationship with my supervisor RGT4 - I feel recognized by my supervisor for my accomplishments	.889	Recognition
QE1 - I feel the contents taught in class fairly make sense QE2 - I believe that the courses in this school will be useful in the future QE3 - I feel that my academic advisors and faculty members are helpful QE4 - I feel that the assignments are relevant to my subjects QE5 - I feel that the professors are dedicated to their teaching professions QE6 – I feel the quality of teaching outstanding	.994	Quality of Education
EDPS2 - My university is located in a convenient location EDPS3 - Korean public transportations are convenient to access EDPS4 - Easy way of maintaining student status	.821	Experience Difficulties in Public Service
SATF3 - If I could live my life over, I would change many things SATF4 - I am content with my life SATF5 - Those around me seem to be living better lives than my own	.868	Student Life Satisfaction

To further test the dataset, a confirmatory factor analysis (CFA) was conducted to analyze the measurement scales' reliability and assess the internal consistencies using the structural equation modeling (SEM) in SPSS-



AMOS ver.24, based on the factors obtained from the pattern matrix. The test for the measurement model was conducted as shown in **Figure 2**, with the outcome revealed the measurement model fit with the following measurement after modification indices was taken into account and filter items by covarying items and remove items with low loadings does the following result reveals as underscored by [4], the degrees of freedom (cmin/df) = 1.233, Goodness of Fit Index (GFI) = .826, Comparative Fit Index (CFI) = 0.969, Tucker-Lewis Index (TLI) = .963, Root Mean Squared (RMR) = 0.073, Root Mean Squared Error of Approximation Index (RMSEA) = 0.048, Normed Fit Index (NFI) = .858, Incremental Fit Index IFI = .970, SRMR = 0.056 and Pclose = 0.559. In this study, the cutoff criteria recommended by [18] were used as a guide for cutoff criteria shown in **Table 5**.

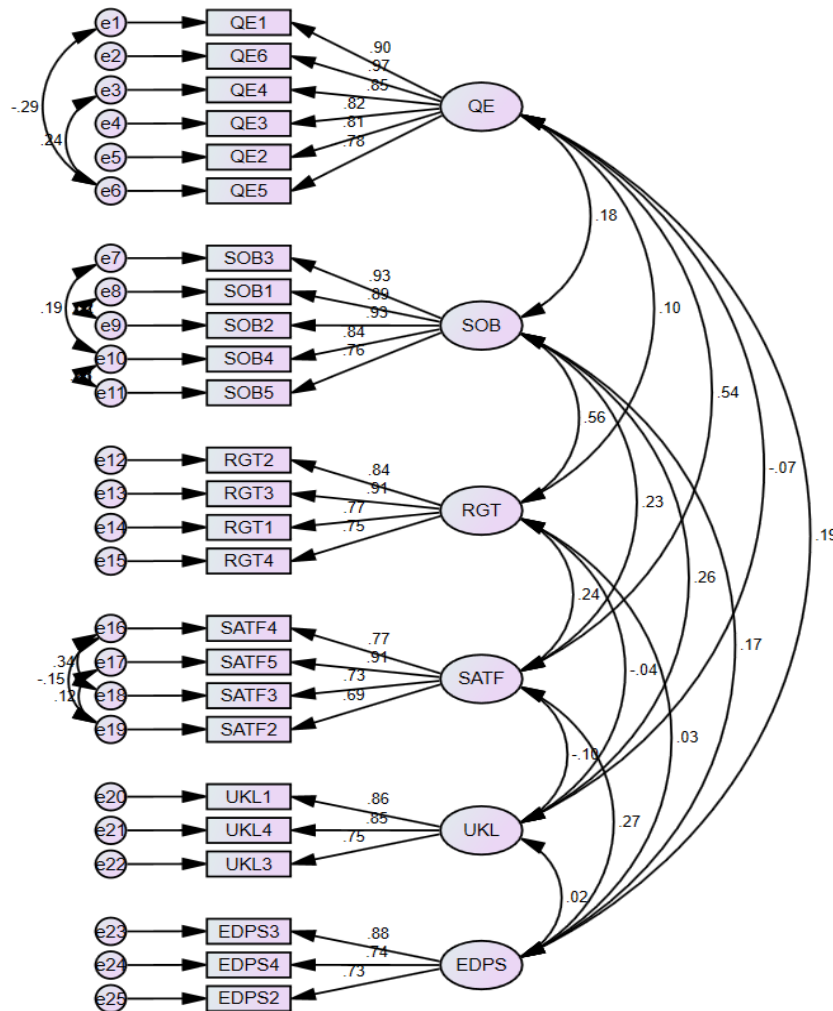


Figure 2. Measurement model

Table 5. Measurement model fit

Metric	cmin/df	GFI	CFI	TLI	RMR	RMSEA	NFI	IFI	SRMR	Pclose
<b>Recommended</b>	Between 1 and 3	>0.90	>0.90	>0.90	>0.90	<0.06	>0.90	>0.90	<0.08	>0.50
<b>Observe Value</b>	<b>1.233</b>	<b>0.826</b>	<b>0.969</b>	<b>0.963</b>	<b>0.073</b>	<b>0.048</b>	<b>0.858</b>	<b>0.970</b>	<b>0.056</b>	<b>0.559</b>

### 3.3 Reliability and Validity

To assess for convergent validity and reliability in CFA, the AVE was calculated in all factors. The AVE of all factors was above 0.50; the discriminant validity was measured by comparing the square root of the AVE (on the diagonal in the matrix below) to all inter-factor correlations. As shown in **Table 6**, all factors demonstrated adequate discriminant validity because the diagonal values are greater than the correlations. We also computed the composite reliability for each factor. All variables were bearing CR above the minimum threshold of 0.70, indicating reliability in factors [6, 14].

**Table 6. Reliability and Validity**

	CR	AVE	QE	SOB	RGT	SATF	UKL	EDPS
<b>QE</b>	0.943	0.737	<b>0.858</b>					
<b>SOB</b>	0.941	0.763	0.185†	<b>0.873</b>				
<b>RGT</b>	0.891	0.672	0.104	0.562***	<b>0.820</b>			
<b>SATF</b>	0.859	0.607	0.541***	0.228*	0.244*	<b>0.779</b>		
<b>UKL</b>	0.862	0.677	-0.068	0.255*	-0.043	-0.100	<b>0.823</b>	
<b>EDPS</b>	0.828	0.617	0.189†	0.169	0.030	0.266*	0.023	<b>0.786</b>

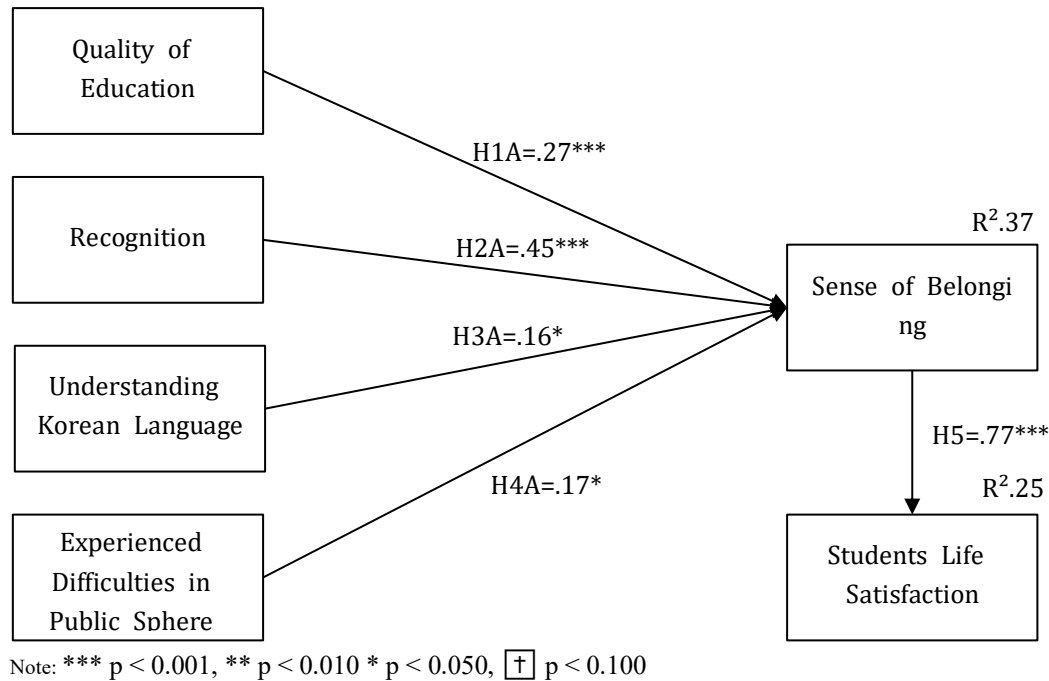
Note: SOB = Sense of Belonging, UKL = Understanding Korean Language, RGT = Recognition, QE = Quality of Education, EDPS = Experience Difficulties in Public Space, SATF = Student Life Satisfaction

## 4. RESULT AND HYPOTHESIS TESTING

The hypothesis was evaluated through the parameters provided by the analysis result of the structural model using AMOS (Ver. 24). To check for predictive measures of the proposed model between the independent and dependent variables, we checked the R<sup>2</sup> value and should be considered. According to [12], the R<sup>2</sup> value of the dependent variable should be at least 10 percent so that it would have a meaningful interpretation and demonstrate explanatory power. In this case, the proposed model base on the path diagram in Figure 3 has shown a substantive explanatory power with the Sense of Belonging obtained an R<sup>2</sup> of .37. While the student life satisfaction obtained an R<sup>2</sup> of .25, which strongly suggests that the variable construct's data sets have a strong explanatory power as it passes the criterion proposed by [12].

The confirmation of the hypothesis can be seen accordingly in the structural path diagram. As shown in **Table 7**, all hypotheses H1 to H4 on indirect effects of sense of belonging were all supported with the indirect path measures of standardized estimates ranging from .135 to .379 with the p-value of 0.002 to 0.027, respectively. Likewise, **Table 8** has shown that all hypotheses on direct effects from the quality of education, recognition, understanding of Korean language and experienced difficulties in public space were all significant therefore suggest a supported result, as shown in the path diagram **Figure 3**. The variable 'sense of belonging' shows the highest beta coefficient with ( $\beta = .77$ ;  $p < 0.001$ ), indicating a significant effect on students' life satisfaction and therefore support our hypothesis H5. The variable recognition shows the second-highest beta coefficient with ( $\beta = .45$ ;  $p < 0.001$ ), indicating a significant effect on the sense of belonging and therefore supporting our hypothesis H2A. Followed by the variable 'quality of education with beta coefficients of ( $\beta = .27$ ;  $p < 0.001$ ), indicating a significant effect on the sense of belonging and therefore supporting our hypothesis H1A. The variable 'experienced difficulties in the public sphere is the third highest with a beta coefficient of ( $\beta = .17$ ;  $p < 0.050$ ), indicating a significant effect on the sense of belonging and therefore supporting our

hypothesis H4A. And lastly, ‘understanding the Korean language’ shows a significant beta coefficient with ( $\beta = .16$ ;  $p < 0.050$ ), indicating a significant effect on the sense of belonging and therefore supporting our hypothesis H3A.



**Figure 3. Structural measurement of model**

**Table 7. Indirect Effects**

Indirect Path	Unstandardized Estimate	Lower	Upper	P-Value	Standardized Estimate	Result
QE --> SOB --> SATF	0.167	0.038	0.334	0.014	0.243*	Supported
RGT --> SOB --> SATF	0.280	0.190	0.363	0.002	0.379**	Supported
EDPS --> SOB --> SATF	0.115	0.035	0.222	0.010	0.135**	Supported
UKL --> SOB --> SATF	0.127	0.047	0.211	0.027	0.135*	Supported

**Table 8. Structural Measurement and Result**

Construct	Standardized $\beta$ Estimate	t-value	p – value	Result
QE $\rightarrow$ SOB	.27	3.601	0.001	Supported
RGT $\rightarrow$ SOB	.45	5.143	0.001	Supported
UKL $\rightarrow$ SOB	.16	2.125	0.034	Supported
EDPS $\rightarrow$ SOB	.17	2.163	0.031	Supported
SATF $\leftarrow$ SOB	.77	3.100	0.002	Supported

## 5. DISCUSSION

This research introduces a new model for understanding what factors influence international student satisfaction and sense of belonging. The novelty of the model lies in the fact that all university-related factors influencing international working students' sense of belonging were significant and therefore increases their life satisfaction. The model was tested with SPSS and AMOS path analysis, which are widely accepted methods. Moreover, the study uncovered that international working students highly give importance in recognition (H2A). The results show that student expectations to be recognized by their peers, university staffs and professors is the influencing factor to feel the sense of belonging which in turned increases their life satisfaction. The result solidifies the work of [10, 22, 23, 34] that recognizing a student as a worthwhile individual affects their sense of belonging resulting in student life satisfaction. Sense of belonging is defined in several ways, many scholars agree that having quality of education is critical to students' academic motivation, success, well-being, and the sense of belonging [16, 29]. Result show that quality of education (H1A) influences international student life satisfaction, as prior studies showed significant effect of quality of education to students' satisfaction [1]. The relationship between experience difficulties in public service (H4A) and sense of belonging (H5) showed significantly positive, notably our parameters in this factor were address in the positive manner. This can only mean that when Korean universities meet the needs of international working student's such as part-time job opportunities, visa concerns, career counseling, assisting in public service concerns, and treated as part of the community; with this kind of experience increases their sense of belonging [2, 3, 29]. With regards to understanding Korean language (H3A) the result shows a positively significant which indicate that when students given the opportunity to engage in language learning their sense of belonging increases. According to [26] the competence in oral communication especially in speaking and listening is actually a prerequisite to students' personal being, academic and success in career life". The lack of language skills proficiency poses a significant barrier to the amalgamation of international students into study room and public places in a foreign university as such in South Korea. International working students in Korea communicate with Koreans in their daily routine as they work while studying. Thus, communication in Korean language is of highly important aspect not just inside the school but also in their workplaces. Additionally, having strong oral communication skills can boost individuals to adjust socially and enjoy satisfying interpersonal relationships with others which in turned increases their sense of belonging [27].

All in all, to answer our research question above all four determinants have positive indirect effect on sense of belonging as discuss above and therefore carry out by saying that our determinants are viable for future framework. Sense of belonging (H5) as expected shows significant positive effect on international students' life satisfaction. Previous studies have linked perceptions of school and campus belonging to positive psychological outcomes, positive emotions, feelings of self-worth and including social acceptance [31, 39]. According to previous researched, sense of belonging is positively associated with academic success and motivation [13]. [37] has stated that students who feel they belong are more likely to see the value of required work and have higher self-belief in their chances to succeed on their course. [24] found that appropriate, satisfactory, and timely satisfaction of the need for belonging leads to physical, emotional, behavioral, and mental well-being which in this case international students. At such when a university has the ability to create a sense of belonging for international students, it becomes the critical aspect of student's decision making for choosing one university above the other [40]. These findings could specifically be useful for the chosen university and might inspire other higher education institutions to examine their international student sense of belonging and life satisfaction deeper.

## 6. CONCLUSION AND IMPLICATION

This research was commenced to find what determinants influence related to international working student's life satisfaction and whether international student's sense of belonging has a mediating indirect effect on student's life satisfaction. The second aim of this paper was to lay a framework to enhance international students' study and work program. Going back to the aims declared at the beginning of this study. We identified that Recognition, Quality of Education, Experienced Difficulties in Public Service and Understanding Korean Language were significantly positive determinants that affect sense of belonging which in turns booster students' life satisfaction. We found that "Sense of Belonging" have an effect on international working students Life Satisfaction. The second major finding we found was that all four determinants have positive indirect effect to international student life satisfaction. We believed that these findings have significant implications for the understanding of how international working students' expectations can be measured and defined in universities. If use as a basis for subjective comparison or a forecasting factor, unbiased expectations could be asked from freshmen so that the measurement of foreign student expectations prior to or upon student arrival in the target country as suggested by [9, 15, 28]. Nevertheless, we found that international working students' life satisfaction in Korea relates to four determinants as both studies abroad experience and university's appraisal to international students' needs. We find this research provide insights for higher education institutions with regards to international student's determinants on their sense of belonging and life satisfaction.

We are confident that the examined variables in this research provides powerful evidence of the importance of student-institution engagement strengthens' student sense of belonging and satisfaction which would improve student retention and success for higher education institutions [42].

The primary implication of this study for higher education institutions in Korea is that the measurement of these determinants must be supplemented with specific study program potentially examining different levels of studies in undergraduate, masters, and doctorate separately. Analyzing international working students in one of Korean universities was proven to be meaningful and provides foundation for further studies and has raised several issues to be examine. Finally, several important limitations need to be considered. First, the research was conducted in an online questionnaire. Second, limitation lies in the fact that the survey samples were only international working students from one Korean university. Third, limitations were in fact majority of the respondents were international working students coming from Asian countries which suggest that cultural implication may somewhat bias. Lastly, the results of this research may solely apply to Korean universities. Therefore, additional studies are recommended to test the applicability of the research framework model in more depth and in multiple Korean universities. Even though the current study was based on a small group of samples, it offers insight into international working student life satisfaction and sense of belonging. The quantitative framework and model for the measurement of the determinant constructs prove to be useful in expanding our understanding of international working students' life satisfaction and their sense of belonging.

The main strength of this study is that it represents a new idea of enhancing international working students' life satisfaction and sense of belonging. However, as mentioned above, this research has also raised many issues that needs further investigation. Firstly, the study of an international working students from different parts of the world is needed in the case of sense of belonging and life satisfaction, surveying respondents from one or two specific country in the same region, may have similar backgrounds and interests and thus may result in cultural bias. Stated in the demographic, the respondents of the current study were only from 4 countries with the majority from Pakistan. Secondly, to really test the applicability of the research model samples size must be increase from different Korean universities who are offering study and work program to determine any differences that might arise from these determinants used. Thirdly, as Korean universities may have different of study program, additional determinants and measurement indicators must be added to fill in the gaps in the survey questions. Therefore, the research model tested in this current research can be the basis for

further studies in specific university, and it would enable Korean universities enhance their service quality and possibly satisfy international working students' needs to a better extent and therefore retain them in the future, [33] has stated, that retaining a customer may be less expensive than attracting new ones.

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