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## Factors and Predictors of International Student's Satisfaction in Turkey

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### Abstract

Satisfaction of student has been viewed as a vital factor regarding quality of learning approach and a key factor in the success of learning programs. The purpose of this paper is to investigate how students perceive the environment, quality, and services they are offered at a Turkish university and how satisfied they are with them. The analysis utilized structured questionnaire and use SPSS for determining correlation among different factors of satisfaction. Also it applied step wise multiple regression to manifest the degree of factors that satisfied international students of Turkish universities. The study concentrated on the insight into how international students perceive and experienced about environment, quality and services they offered and how they satisfied are. The research consider eight factors as satisfied with academic and education quality, image and prestige of the university, administrative support, future career and retention reason, personal influence, financial and economic consideration, and environment and safety. Among the factors five factors as students self preparation, academic and education quality, administrative and staff support, personal influence, and environment and safety had found significant from the analysis. The findings are expected to provide useful guidelines to the academic institution while improving students satisfaction.

**Keywords:** student satisfaction, education quality, self preparation, safety.



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## Introduction

Education institution worldwide has concern about satisfaction of students because students are prime stake holder of the education institution. Today students are moving to the institution that ensure quality education and help students to achieve their goals. In modern organization education service is equally important as like other commercial and non commercial organization. International students experience more adjustment problems than local students and have limited resources to cope with their problems (Lee *et al.*, 2004; Poyrazli *et al.*, 2004). This statement is also true for Turkey. It is revealed that life satisfaction, integration to social life, length of stay, and Turkish language proficiency were significant predictors of psychological distress levels of international students studying in Turkey (Cetinkaya-Yildiz *et al.*, 2011). Several other authors also stated that international students face problems (Devos, 2003; Tseng & Newton, 2002; Ultsch & Rust, 2001) mainly because of dissimilar aspect of daily life. Therefore, it is also expected that different factors will play role in international students' satisfaction in Turkey also.

Understanding satisfaction of students with services and facilities from the university and their department help the respective organization to identify their strength and opportunities that could be improved. Determination of student satisfaction is not a simple issue that only to measure students' perception. It should be an in depth investigation about the student experience.

For understanding students' satisfaction and experience it is necessary to know the perception of students about the service provided by their organization. Knowing the factors that affect student satisfaction, student expectation about department service is vital for the academic organization. Student affairs professionals must be colleagues with "shared values, goals, language, and committed to creating a single cohesive educational environment and experience for each student." a cohesive and seamless environment is what significantly contributes to student success. In order to have student satisfaction a strong, collaborative relationship between academic and student services should exist (Colwell, 2006). Personal relevance, instructor support, active learning, and authentic learning were significantly and positively related to student satisfaction in distance education program in Turkey (Sahin, 2007). These results provide valuable feedback to institutions offering online classes and to educators evaluating satisfaction of their students.

Therefore the purpose of this study is the determination of factors and predictors affecting international students' satisfaction of Turkish Universities. To complete this purpose, the research question regarding the factor structure for the international students' satisfaction will be answered: Which factors have more affective impact on student satisfaction in Turkish universities.

Student satisfaction is an important fact when choosing academic organization in abroad. Services product bundle, commitment to teaching quality and improving the student experience are reflected through student satisfaction always. The service-product bundle refers to the inseparable offering of many goods and services. For a university the facilitating goods include the lectures and tutorials, presentation slides, supplementary handout documents/materials and the recommended module text. Performance of faculty members, support service like staff advising, and class facilities are influential to student's satisfaction (DeShields, *et al.*, 2005). It also includes the physical facilities such as the lecture theatres

and tutorial rooms and their level of furnishing, decoration, lighting and layout as well as ancillary services such as catering and recreational amenities. Not only the student service but also other factors influence the satisfaction.

Some factors are internal that depends on student themselves ("*preparation*") and some factors are external ("*culture*" and "*technical teaching*") that are not controlled by the students but controlled by the institution (wang, *et al.*, 2011). The explicit service includes the knowledge levels of staff, staff teaching ability, the consistency of teaching quality irrespective of personnel, ease of making appointments with staff, the level of difficulty of the subject content and the workload. The implicit service includes the treatment of students by staff, including friendliness and approachability, concern shown if the student has a problem, respect for feelings and opinions, availability of staff, capability and competence of staff. Education quality, social environment, scholarship facility, accommodation and safety, prestige and image are significant predictors of satisfaction (Arambewela and Hall, 2009). It also includes the ability of the university's environment to make the student feel comfortable, the sense of competence, confidence and professionalism conveyed by the ambience in lectures and tutorials, feeling that the student's best interest is being served and a feeling that rewards are consistent with the effort put into coursework/examinations. Price *et al.*, (2003) recently reported on the impact of facilities on undergraduate student choice of university. They surveyed a number of universities over two years in order to determine students' reasons for selecting a particular university.

The average results for the two years were fairly similar – the top eight reasons being; it had the right course, availability of computers, quality of library facilities, good teaching reputation, availability of "quiet" areas, availability of areas for self-study, quality of public transport in the town/city and a friendly attitude towards students. Clearly, students' perceptions of a university's facilities are one of the main influences on their decision to enroll. Student satisfaction is decreased when class sizes are larger in earlier cohorts, and when students are taking compulsory core modules rather than optional modules (Coles 2002). Students' satisfaction is the result of subjective evolution of the various outcomes and experience associate with education. It is being shaped gradually by repeated experience a student had in campus life. Students' satisfaction has impact on different aspect like fundraising and student motivation (Elliott and Shin, 2002). Satisfied students will catch the attention of new students by appealing in positive word-of-mouth communication to inform acquaintances and friends, and they may return to the university to take other courses (Wiers-Jenssen *et al.*, 2002; Mavondo *et al.*, 2004). Same to the point Devinder and Datta (2003) said that satisfied customers are loyal, and that satisfied students are also being loyal. They likely to attend another lecture delivered by the same lecturer or opt for another module or course taught by her/him.

## Methodology

This study form a framework based on literature review and previous studies. The research considers total eight factors as independent variable consisting of 34 items. Factors are divided into internal and external factor. External factors are academic and education quality, image and prestige of the university, administrative and staff support, future career and retention reason, personal influence, financial and economic consideration, and safety.

The internal factor named as self preparation before coming to Turkey. Among eight factors seven factors considered as external factor that have very limited influence by the student and consider one factor as internal factor that influenced by student effort. Finally overall foreign students' satisfaction considered as dependent variable. Based on concept the research consider the following hypothesis:

*H1: Both internal and external factors will have a positive relationship with overall student satisfaction.*

*H2: Both external and internal factors will be the significant predictors of overall student satisfaction.*

Data collected from foreign student studied in different universities of Turkey. Structured questionnaire was prepared and distributed to the student thorough online. Survey monkey dot com was used for collecting data through online. We select ten major cities in Turkey. More than 500 questionnaires send to the 18 university students are of 15 different departments. Student that are studying Turkey more than one year are selected for response. Both undergraduate and post graduate students are encouraged to express their opinion. Contact addresses of the students are collected through respective international office the universities and students association. In total, 340 international students of fifteen different countries participate in this study. Among the participant 25 percent were female and 75 percent were male. Overall thirty one percent Bachelors, thirty six percent Masters and thirty three percent PhD students participate in the study.

Students' satisfaction measured by applying five point Likert Scale ranging from highly unsatisfied (5) to highly satisfied (1). Respondent had rated their satisfaction level with their program of study in the university they studied. Questionnaire consists of question about demographic status, student overall satisfaction and different factors relating to students' satisfaction. SPSS 20 used to analyze the data. The score of Cronbach's Alpha 0.94 indicate the data are reliable. The measurement instrument was designed especially for measuring international students' satisfaction that studied in different Turkish Universities. Total nine variables considered here to fix the measurement tool. Among the variable "overall satisfaction" containing three items considered as a dependent variable and from remaining variable seven of the variables considered as external independent and other variable considered as internal independent variable. External variables are academic and education quality, image and prestige of the university, administrative support, future career and retention reason, personal influence, financial and economic consideration, and safety. Self preparation considered as internal variable.

The study used descriptive statistics to gain demographic characteristics of the respondents, their level of satisfaction and preparation. For the testing of hypothesis, Pearson's correlation, and stepwise regression analysis were performed in order to identify the relationships between dependent and independent variables, and to examine which factors have the predictive power on the overall satisfaction. From the sample of 340 foreign students who are studying in different public and private universities of Turkey. The research findings were concluded and categorized into the following parts are as follows:

## Results

The ratio of male and female respondent is 3:1. Largest group of students belong to the age group of 25-29. Majority of respondent are from Asian and African countries. Large portion of respondent responded from public universities. The largest group of students' response from different department likes business administration, agriculture, electrical engineering and computer science. (Table 1)

**Table 1.** Demographic feature

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	245	72.1	72.1	72.1
	Female	95	27.9	27.9	100.0
	Total	340	100.0	100.0	

In the current result the minimum tolerance value is 0.266 for the variable "academic and education quality" which is more than 0.10. Therefore, we have not violated the multicollinearity assumption. This also supported by the Variance Inflation Factor (VIF) value, which show that maximum value is 3.758 for the same variable, which bellow the cut-off of 10. (Table 2)

**Table 2.** Collinearity statistics

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Self Preparation	.656	1.524
	Academic & Education Quality	.266	3.758
	Image & Prestige of the University	.326	3.066
	Administrative & Staff support	.324	3.082
	Future career & Retention reason	.378	2.646
	Personal influence	.533	1.875
	Financial & Economic Consideration	.719	1.390
	safety	.583	1.715
	a. Dependent Variable: Overall satisfaction		

In this study, the results of descriptive analysis showed that the average satisfaction level of the international students studying in Turkey. From the table we see, student's overall preparation was good (Mean = 3.5, SD = 0.62). The results also demonstrate that overall satisfaction level of the respondents toward international program in Turkish universities was in satisfied level (Mean = 3.7, SD = 0.61). If we come across more in details toward each aspect we see, the highest satisfied factor was environment and safety with satisfied level (Mean = 3.688, SD = 0.42). The second highest satisfied factor was financial and economic consideration with satisfied level (Mean = 3.682, SD = 0.41) as well. The least satisfied factor was personal influence (Mean = 3.42, SD = 0.50), but it was still in satisfied level. More details are shown in Table 3.

**Table 3.** Summary of Descriptive Statistics

Descriptive Statistics				
	Mean	Std. Deviation	N	Meaning
Overall satisfaction	3.7039	.61227	340	Satisfied
Self Preparation	3.5397	.62657	340	Good
Academic & Education Quality	3.6714	.68223	340	Satisfied
Image & Prestige of the University	3.5333	.91414	340	Satisfied
Administrative & Staff support	3.6559	.77238	340	Satisfied
Future career & Retention reason	3.4574	.62284	340	Satisfied
Personal influence	3.4250	.50430	340	Satisfied
Financial & Economic Consideration	3.6824	.41831	340	Satisfied
Environment & safety	3.6882	.42229	340	Satisfied

*Analysis of Factors Influencing Foreign Students' Satisfaction (Hypothesis Testing)*

Pearson's product correlation was applied to identify the relationship between dependent and independent variable. This correlation used to test hypothesis 1. Details of the test shown below.

H1: Both internal and external factors will have a positive relationship with overall student satisfaction.

From the table 4 it is revealed the relationship between dependent and independent variable. All independent variables except financial and economic condition variable had significant positive relationship with the dependent variable (overall student satisfaction), ranged from  $r = 0.044$  to  $r = 0.659$ . In details, the factor that has the highest positive relationship with overall student satisfaction was students' satisfaction with academic and education quality ( $r = 0.659$ ,  $p = 0.000$ ), followed by administrative and staff support ( $r = 0.645$ ,  $p = 0.000$ ), future career and retention reasons ( $r = 0.587$ ,  $p = 0.000$ ), image and prestige of the university ( $r = 0.541$ ,  $p = 0.000$ ), personal influences ( $r = 0.499$ ,  $p = 0.000$ ), students' self-preparation ( $r = 0.322$ ,  $p = 0.000$ ), environment and safety ( $r = 0.117$ ,  $p = 0.031$ ), and finally the lowest positive relationship was financial and economic consideration ( $r = 0.044$ ,  $p = 0.414$ ) with the student satisfaction which is insignificant. Hence, the Hypothesis 1 is partially true but not fully.

**Table 4.** Persons correlation

		Correlations								
		1	2	3	4	5	6	7	8	9
1	Overall satisfaction	1								
2	Self Preparation	.322**	1							
3	Academic & Education Quality	.659**	.539**	1						
4	Image & Prestige of the University	.541**	.350**	.680*	1					
5	Administrative & Staff support	.645**	.432**	.741*	.744**	1				
6	Future career & Retention reason	.587**	.258**	.696*	.635**	.610*	1			

7	Personal influence	.499**	.224**	.485*	.611**	.467*	.613*	1
8	Financial & Economic Consideration	.044	.127*	.217*	.028	.134*	.007	.010
9	Environment & safety	.117*	.147**	.449*	.405**	.470*	.298*	.201*
								.456*
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Step-wise multiple regression analysis was applied to test hypothesis 2. The following details are given about test and analysis.

H2: Both external and internal factors will be the significant predictors of overall student satisfaction.

The overall student satisfaction was defined as criterion or dependent variable. After stepwise multiple regressions was applied, the result shown that with all eight variables, only five independent variables were found to be the significant predictors of the overall student satisfaction. These five factors were: satisfaction with: self preparation, academic and education quality, administrative and staff support, Personal influence, and environment and safety of the university. The stepwise multiple regression model for these five variables also shown that these factors could account for 58% of the variance in the overall student satisfaction (Adjusted R<sup>2</sup> = 0.579)(table 5). From the five factors, satisfaction with academic and education quality has the largest Beta coefficient ( $\beta = 0.465$ ,  $p = 0.000$ ), followed by, administrative and staff support ( $\beta = 0.407$ ,  $p = 0.000$ ), personal influence ( $\beta = 0.166$ ,  $p = 0.000$ ), environment and safety ( $\beta = 0.302$ ,  $p = 0.000$ ), and self preparation ( $\beta = 0.098$ ,  $p = 0.022$ ), and keeping all other variables constant. Hence hypothesis 2 was partially confirmed because only five factors were shown to be significantly influenced on the overall student satisfaction (Table 5).

**Table 5.** Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.765 <sup>a</sup>	.586	.579	.39712

a. Predictors: (Constant), safety, Self Preparation, Personal influence, Administrative & Staff support, Academic & Education Quality

b. Dependent Variable: Overall satisfaction

**Table 6.** Result of step wise regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.254	.244		9.233	.000
	Self Preparation	.096	.041	.098	2.309	.022
	Academic & Education Quality	.418	.053	.465	7.829	.000



Administrative & Staff support	.323	.044	.407	7.366	.000
Personal influence	.202	.050	.166	4.034	.000
Environment & safety	.438	.060	.302	7.359	.000

## Conclusion

The analysis reveals that academic & education quality has highly significant influence on students' satisfaction. Among other factors international student mostly considered education quality before choosing academic organization in abroad. It is also observed that perceived quality as a predecessor to satisfaction (Farrell et al., 2001). Same way Browne et al. (1998) and Guolla (1999) confirm that students' perceived service quality is an ancestor to student satisfaction. The second factor that has significance prediction power for satisfaction is administrative and staff support. It is the combination of different service from the administrative wings of the university like helping student in their application and registration process, counseling services, willingness to support, understanding and solving the administrative problem of students. The front-line staff in their turn had a direct impact on students, potential students and other clients (Galloway, 1998). Expedient registration procedures, instructor quality, course variety, and scheduling convenience had the most impact on adult student satisfaction (Mangano and Corrado., 1979). Sadiq and Shaikh (2004) found that "contact personnel" was the most influencing factor in student's evaluation of service quality. Among other factor personal influence was also significant factor that contribute to student satisfaction. Personal influence as advises from supervisor, parents/guardians, friends, job prospect and friends who are still studying in Turkey have significant influence on student satisfaction. Advices from supervisor not only regarding research but also personal mater in some cases increase the students' satisfaction. Along with services and advice international students also concern about safety. Safety issue is now vital factor in today's world. It is same for international students studying in Turkey also. Safety around campus, the recreation facilities, issues concerning racial and reputation has considered as elements of environment and safety. International students' opined environment and safety have significance contribution regarding their satisfaction. Especially for international students they were highly concern about safety. It is also an indicator of quality education. Safe environment plays in creating safe schools (Duke, 2002; Mulvey & Cauffman, 2001). Our analysis also found significance of safety and environment issue. The final issue that found significant for students satisfaction was students' self preparation before coming Turkey. Student mostly face language barrier in Turkey as English language is not so used for communication. Instead living in Turkey, study and research potential also considered by international students before coming to Turkey. Our analysis proves that students' self preparation is significant predictor for international students' satisfaction. It is also found same for Chinese students' satisfaction. Chinese students consider self preparation before going abroad to study is important. In addition, the students who felt they were better prepared for study abroad showed higher satisfaction (wang, *et al.*, 2011).

This paper has aimed at outlining insights on the expectations and motivations of the international students studying in Turkey. The results highlight some important aspects of student satisfaction to be investigated in more detail, which the university management should take into consideration. According to the analysis and findings, several needed

improvements can be identified. There were five factors as academic and education quality, Personal influence, safety, administrative and staff support of the university, and students' Self Preparation had significant positive influence on overall international students' satisfaction toward Turkish universities. International students are satisfied currently regarding the factor found significant in our study. But there is chance to improve it more so that prospective international students attracted through current students "word of mouth" referrals. As well as concern about above factor also increase current level of satisfaction.

## Notes

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