The study of student satisfaction with university services in Iran

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Abstract

This study examines one of the most important factors due to organizations' efficiency. The purpose of this paper: To explain significant relationship between university services and students' satisfaction and to explain significant relationship between sex, age and students' satisfaction of university services. Research method is survey. Ratio and multi-stage random sampling was used as a technique. Findings showed most students are satisfied with welfare services, although students' dissatisfaction of educational services is obvious. The relation of four factors including management-educational-cultural and welfare with students' satisfaction was significant and robust (r=84%) but it wasn't correlation between age and sex with students' satisfaction. The result indicates the students' satisfactions with the services are ranked lower.

Keywords: Satisfaction of university, management services, educational services, welfare services, cultural services

1. Introduction

Juvenile population of Iran caused the authorities put special effort into providing youth satisfaction. University receives considerable attention and is viewed increasingly as an institution which gives services to youth according to their needs. Higher education has a strategic (Morgan 1994) and inevitable role to bring up ingenious, creative and aware persons so that the society as well as organizations makes progress (Baron 2000). Furthermore, university is considered to develop skills, proficiency and innovation in every country (Alagheband 1985, Golshani Foomani 2003; Saboori 2004; Sharepour 2007). Accordingly, it is important to provide university services in such a way that students feel quite safe so that they become mentally ready to learn more. This study centralized Payame Noor University (PNU) to study students' satisfaction of its services. Along with other universities, PNU aim at providing a secure atmosphere to develop specialties and skills of students. The classes are run the distance and semi presence based learning. In recent years, the arrangements lead to enhance the interaction of student, professor as well as student, university. The main difference between PNU and other universities is its book priority. Its services are different. In this respect, there is no difference with other universities. Students have expectations. Fulfillment of their expectations may provide students' satisfaction of the university. Satisfaction means the difference between the amount of award one receives and what one expects to receive (Robbins 1993; Hooman 2002, p. 8). Some results show, students rated their satisfaction with university services much lower (Joorabchi 2002; Siadat et al. 2003; Kebriaie 2005).

Knowing the rate of students' satisfaction, will help the authorities to consider strength & weak points of university regarding customers of educational services point of view & according to Max Weber "as a doer not as an observes". (Aron 1991; Ritzer 1995). Moreover, the authorities consider some factors affecting students' satisfaction to make decisions. Therefore, the main problem is: What are fundamental factors of the university services? How well programs met students' satisfaction of services?

1.1. Research objectives

The specific objects of the study include:

- Factor analysis of PNU
- Explaining significant relation between university services & student satisfaction of their own university.
- Evaluating student satisfaction of their university services.
- Clarifying significant relation between students' sex, age & their satisfaction with the university.
- Offering suggestions to increase the rate of students' satisfaction with Payame Noor universities.
1.2. Research questions

RQ1: What kind of services has the university offered to the students?
RQ2: Is there any significant relation between the university services & students' satisfaction?
RQ3: How well the university services met students' satisfaction?
RQ4: What kinds of services make students so happy & satisfied?
RQ5: Is there any significant relation between students' sex, age & their satisfaction of university services?
RQ6: Is there any suggestion to increase students' satisfaction?

2. Research literature

“Few researches related to students' satisfaction with university are aggregated in Iran & foreign countries pointed here. A study named "students & Masters of higher education satisfaction with academic staff services at Medical science of Isfahan was conducted by Siadat & et al. (2003). The writer's intention was to determine the rate of their satisfaction of academic staff services based on four dimensions (educational, administrative, responding quality, supervision & guidance). 78 M.A & PhD students & 65 Masters of MA & PhD degrees have been questioned using statistic method from 2001 to 2002 The results showed the masters & students' dissatisfaction towards services rendered by academic staffs. Researchers believed dissatisfaction of students & masters is a weakness point that high ranked managers should take an action to improve the quality of educational services.

Kebriaee(2005, p. 56-61) studies on Medical science university of Zahedan showed there was no significant relation between currant & favourable situation regarding five dimensions of educational services include guaranty, responding, empathy, assurance & physical. The majority (81%) believed on exiting a crack between students & negative responding quality.

Joorabchi research on Medical science of Qazvin indicated, the services provided for midwifery students were not desirable (2002, p. 44-47). In this respect, the managers' responsibilities have been classified in six groups, including: educational program and teaching, learner affairs, staff affairs, educational organization interactions with society, facilities and educational equipments, administrative and financial affairs (Alagheband 1998). Johnson in South Africa studied fair satisfaction of students in the field of university educational services. He reported student's main problem was tuition and welfare services of university (Johnson 1995, p. 42-223). University services consist of different fields such as cultural and welfare services, but most papers consider students’ satisfaction towards educational and management services.

2.1. Theoretical basis & concept definitions

To explain theoretical basis the paper has used social psychologist along with sociologist theories.

This study provides the cognition of satisfaction theories using data on luck grouping (1976 as Azkia & Tavakoli cited 2006, p.7). In each class is then used a theory. For example, content theories of job satisfaction, Herzberg & Kelton Alderfer dual factor theory (1973) & also, process or discrepancy theories on job satisfaction. Some measures are taken from Ports expectation theory & Laler (1968). The paper summarizes the theories aggregated from relative deprivation theory (Iain & Heather 2001) and also Goor (2000) thesis. There is another related literature that shows persons social system theory & Merton Functional theory. This research explains the discourse using functional approach since satisfaction is the outcome of an individual presence in social milieu & the interactions based on benefits in the form of expectations. People, who are entering organizations, have many different needs. If the needs haven’t been fulfilled reasonably, all the actions & thoughts will be gathered to satisfy (Mohseni & Salehi 2003, p.11; cited Moedifar & Zahani 2004, p.139). In his book named social system, Parsons believes constructive elements of a society tend to cooperate in order to build a dynamic balance (Parsons 1951, Ritter 1995, p.119). & also, he considers social system as a whole which has solidarity. It results from interactional effects of structures & helps to protect its generality.

Merton believes in exiting disparity between different functions of a system (visible or invisible) which is important in functional analysis. It’s not necessary to interpret visible function. Invisible functions have unexpected results &
effects. However, both of them always exist since the effects & results are clear. It’s possible the university does not pay attention with the university are ranked lower. If students & masters are not satisfied of their own university (management & going services) it may affect students’ efficiency. With regard to this, some problems may arise. For instance, students won’t pay much attention to their lessons & as a result, they may waste their time (Tavasoli 1991, p. 220-222).

According to Herzberg satisfaction has two distinct dimensions. Hygienious factors include conditions of employment & external aspects such as supervision, rights & interpersonal relations & job opportunities. Motivating factor is the second dimension related to tasks. It also consists of aspects such as importance of making progress, responsibility & growth.

Therefore, they refer to two kinds of job satisfaction as follows:

1. Inner satisfaction yield. Two sources firstly, the pleasure results from employment & activity. Secondly, improvement brings about enormous enjoyment or takes place because of assuming social responsibilities.

2. External satisfaction which related to employment opportunities & conditions. It changes a lot. Inner satisfaction is more permanent than external one.

Immense satisfaction derived from interaction between inner & external satisfaction (Shafeeabadi 1996, p. 125). Herzberg’s dual factor theory has an important role in order to help managers realizing staffs motivation. Klayton Aldefer(1973, p. 409) believes human being has three basic needs : biological, dependence & growth. Subsist needs related to physical like food, clothes, salary or wage and job security. Dependence needs are interpersonal relations in employment condition & out of it. Growth needs refer to the tendency of achievement & accomplishment. Having no suitable relations with the colleagues, an individual may use a (regression) mechanism & attend to primary needs. It is obvious that one evaluates consequences of his (or her) own activity. If it worth, someone will take an action. Expectation & probability theories mainly based on this logic. According to ports & Laler model (1968), the intention of a person & his satisfaction affect some factors such as; the cost and desirable reward, expectancy & probability of idealistic result, understanding his own role in organization and also getting fair reward. Goor cited sudden and increasing gap between expectations & enjoyment, either real or unreal, results in relation deprivation (2000, p. 150 quoted Moeedfar & Zahani 2005, p. 142). Having no suitable relations with the colleagues, an individual may use a (regression) mechanism & attend to primary needs (Alderfer 1973 quoted Saatchi 1991, p. 409). It is obvious that one evaluates consequences of his (or her) own activity. If it worthy, someone will take an action. Expectation & probability theories mainly based on this logic. According to ports & Laler model (1968), the intention of a person & his satisfaction affects some factors such as; the cost & desirable reward, expectancy & probability of idealistic result, understanding his own role in organization and also getting fair reward.

Merton defines relative deprivation as a mental state & deficiency which an individual shows towards a group or a standard model. When such an individual compares himself with the favourite person or group having same situation and then, comes to a conclusion that they are not the same, this results in relative deprivation. If such dissatisfaction continues, it may cause deviation & revolt (Mariin 1985, p. 123 quoted Moeedfar & Zahani 2005, p. 142).

2.2. Research framework & Model

According to research’s literature & presented theories, its framework & hypothesis are as follows:

Research hypothesis: there is a significant relation between university services and students’ satisfaction with the university. If a student is satisfied with his own university, he will gain enormous pleasure & take part in occasions as well as extra activities. In this way, he feels that the university services provided for him can meet his future expectations like educational success, skill acquisition & prosperous employment.

The research model based on theoretical framework is presented Figure 1.

3. Materials and Methods

3.1. Research design

Research project: considering subject’s nature & extend range of population & also the limitation of statistical population (Babi 2002), the research method is survey. Applied type is adjusted in this study. Unit analysis is an individual since questions from students are included. This paper uses cross sectional method. Sampling method is
related to simple random multi-stage & relative.
Sample size is determined according to Cochran’s Test regarding (70%) of female & (30%) male.
The data consist of observations on 319 students at Payame Noor universities in Hamadan province (25794 people), using relative random sampling. Province (25794 people), and using relative random sampling.

\[
\frac{N \times t^2 \times p \times q}{(N - 1) d^2 + t^2 \times p \times q} = \frac{25794 \times (1.96)^2 \times .70 \times .30}{25793 \times (.50)^2 + (1.96)^2 \times .70 \times .30} = 319 \text{ the number of total students}
\]

319 × .70 = 223 the number of female students & 319 × .30 = 96 the number of male students

In next phase, 3 universities in Hamadan, Tuyserkan & Razan have been selected randomly. Then, regarding the whole number & the ratio between females & males, 319 students have been chosen & then studied according to simple random method; the whole number was 14743 people over 3 universities. Sample size includes:

\[
\frac{9382 \times 3000 + 2361}{14743} = 14743 \text{ the whole number was 14743 people over 3 universities}
\]

319 × 9382 = 203 (Hamadan) & (319 × 2361) = 52 (Rasan)

3.2. Information gathering method
Firstly, the researcher carried out face to face interview with 30 students. Then, some questions provided by the university, many of which asked about the quality of student’s services. A questionnaire based on theories and research literature and also, students’ viewpoints has been constructed by the researcher. Some questions have been changed and revised. Questionnaire’s validity was determined based on face validity. It’s consistency with (0.886) Cronbach's Alpha has been shown remarkably well through high validity of variables to evaluate students’ satisfaction. Part A indicates demographic information while Part B consists of main questions due to 40 items.

Administrative method: The researcher with the help of four professional interviewers carried out oral and written forms of interviews.
This paper studies students’ satisfaction, not job satisfaction. However, one can make use of job satisfaction theories to build the model.

3.3. The level of evaluating variables
Main indexes have been arranged based on Likert 5 degree spectrum in the form of dummy internal. The responses are all coded as: 5 = very much , 4 = much , 3 = somewhat , 2 = little, 1= very little

Sex variable is measured nominal planner. Age variable deals with internal. Data are collected during one month.

3.4. Variable instrumentation
This study used descriptive statistic such as frequency & percentage to obtain satisfaction rate & population variables. Inferential statistics such as factor analysis used to build index & designed to limit variables.

Pearson correlation coefficient has been used to study the relation & correlation of independent & dependent variables. Single variable, a few conversional and Anova regression analysis are then used to predict effectivenes & significant relation among variables. Estimation the relationship between sex variable & satisfaction are also of interest. Thus, Phi non-parametric coefficient statistic is calculated. The satisfaction scores of university services were evaluated related to 27 indexes. Using Cronbach's Alpha formula, reliability was measured through analyzes /scale and also correlated with coefficients 0.890. For instance, management services include variables related to providing students’ security & also, the students’ supervision. Educational services cover variables Such as
registration process, holding midterm & final exam, access to lab & its possibilities library & book availability, problem solving classes, access to master, the volume of the books, the quality of books, curriculum, omitted & added method. Variables dealing with cultural services are listed as: scientific, pilgrimage & tourism camps & also celebrating in different occasions, Quran competitions and prayer room. Welfare services include variables like tuition fees, transportation system, food service, cleaning classroom, corridors, stairs & yard, copy, landscaping, site possibilities and gym.

Consistency of whole variable is studied (45 variables) using Cronbach’s Alpha and also correlated with coefficient 0.890. it has been shown remarkably well (sig=0.000) & proved desirable variables. The data are analyzed regarding statistical package for social science (SPSS) related to 16 version. Using factor analysis in analytical & inferential phases, indexes are built. Reliability & validity of variables are calculated. 84.3% with regard to 351 liberty degree & 0.000 significant levels using KMO and Bartlett’s. Variable consistency shows that it is appropriate for factor analysis (84.3% > 0.50). Various variables have been distinguished through students’ interviews as well as their scientific backgrounds. Using factor analysis technique, the variables are relatively restricted & then, the significant relations between such factors and students’ satisfaction have been studied. Furthermore, it makes use of regression analysis to predict the rate of students’ satisfaction changing through providing alternative services.

4. Results

4.1 Descriptive findings

1. Demographic findings have been summarized as follows:

   The students ranging in age from 19 to 39 & 71.05% of respondents age reported from 20 to 24.

2. Descriptive findings have been shown in table number 1.

3. Table number: students’ satisfaction rate of PNU regarding place of study (n=319)

To examine critical factors referring very much & based on the table number 1, 19.4% of students were satisfied of management services while 11.9% showed their satisfaction with educational services & also 29.35% of students assessed the satisfaction of PNU welfare services. 19.75% of students’ derived general satisfaction from evaluating cultural services. Generally, 22.34% of students were satisfied with the university services. Regarding welfare services, highest satisfaction exists in yard, corridors & stairs cleaning. Considering educational services; holding final exam, omitted & added method & registration expressed great satisfaction. The highest level of satisfaction related to cultural services deal with prayer room & also holding special programs. 34.8% of students cooperate fully with the university in different fields. 12.95% enjoyed continuing their study at PNU.

4.2 Inferential statistics findings

Research hypothesis: there is a significant relation (HO $\neq$ H1) between providing university services & Payame Noor students’ satisfaction.

Many variables (here 27) changed to limited ones (4 factors) in factor analysis. To determine the number of factors, Eigenvalue criterion is used. It means load factor more than 50% (Kim & Muler 1999 & Kalantari 2003) has been chosen. Variables SPSS summarized according to following table in 4 factors using varimax order. According to factor analysis 20 appropriate variables have been selected from 27 variables & then, they summarized based on 4 factors. The first group of total factor analysis named educational services, second group called management services. Cultural services considered as third group, while fourth group classified welfare services & cleaning. Calculating & saving factorial scores, 4 factors considered as new independent variables instead of 20 former variables. Four above mentioned factors enter regression equation regarding students’ satisfaction with university services. First, Pearson correlation coefficient simply calculated to be sure that the variables are appropriate & then, regression analysis is used to estimate the measures based on significant level.

Regression has been used to test research hypothesis following the evaluation. Analyze/descriptive statistics & Analyze/correlate variant route have been used to evaluate & determine the rate of correlation. Findings summarized in table number 3 & 4. Pearson correlation coefficient values show that factor scores from 1 to 4 are appropriate for regression analysis. Since their correlation coefficient with dependent variable (satisfaction) is very high & positive
(R=0.990). One can predict the changes occurred in satisfaction variable based on management, educational, cultural & welfare variables changing through obtainable regression coefficient Determination coefficient indicated that 88.4% changes occurred in students’ satisfaction rate, can be related to providing management, educational, cultural & welfare services. It means if 1 unit increases to each factor of services, it may grow students’ satisfaction level up to 88.4% with university. ANOVA table shows that there is a significant relation between providing university services and students’ satisfaction regarding 95% confidence level (sig=0.000). It confirms research hypothesis. Mean squares show that a large number of variances are explained through 4 factors (17488.010) & also a little bit part of remained variances (29.398) are not studied in this research. F test related to regression coefficient in this table shows that the coefficient is significant & it also affects Ý (dependent variable=satisfaction with university).

According to table number 6 multiple regression equation is as follows. This equation has been calculated referring B column (factor coefficient). Regression equation indicates satisfaction be predicted based on fixed amount and sum of coefficient of predictor variables based on university services multiplied to the amount of those variables.

\[ Ý = a + B1 \times F1 + B2 \times F2 + B3 \times F3 + B4 \times F4 \]
\[ Ý = 81.964 + 9.507 \times (management\ services) + 8.115 \times (educational\ services) + 8.180 \times (cultural\ services) + 2.908 \times (welfare\ services) \]

The next part evaluated the relationship between students’ age, sex and their satisfaction of university.

Second hypothesis:
There is a significant relation between students’ satisfaction and PNU. Age variable is an internal one & there has been used Pearson statistic and multi variant regression.

Findings prove there is no significant relation between students’ age variable & satisfaction index & also Null hypotheses has been confirmed (Sig = 0.399>0.05). According to amount of Pearson correlation coefficient, there is a weak relation between age & students’ satisfaction (r=0.048).

Third hypothesis: there is a significant relation between sex and students’ satisfaction of their university.
Phi option has been selected which is appropriate to nominal planner variables. A finding indicates that there is no significant relation between students’ sex and their satisfaction of university. (Phi=0.495 & sig =0.694>0.5).

5. Conclusions & Discussion

Findings shows that student’s satisfaction with university services including management, educational, welfare & cultural are 23.36%. The student responses show remarkably high levels of satisfaction according to welfare services(29.35%) & this likely contrasts with the educational services which indicate 11.9% satisfaction in lowest level.

Moreover, 34.8% students collaborate the university programs running programs & occasions. It is estimated to positive but specifically, the students don’t tend to continue their studies in higher education at PNU. Surprisingly, students are estimated to be less likely to enjoy studying there. Only 12.95% prefer PNU to others. The overall conclusions from results show 22.34% students are satisfied with the university. Satisfaction score is rather low.

This study indicates students’ dissatisfaction of management & educational services given by Payame Noor universities. As Siadat et al (2003) studies found that Isfahan medical science university masters & under graduated students’ dissatisfaction of educational, administrative, supervision, and guidance & also, Kebriaee’s study (2005) at Zahedan University & Joorabchi results (2002) at Qazvin Medical science have confirmed students’ dissatisfaction of educational services.

Therefore, the research findings highly coordinate with those findings regarding educational& management services & confirm them.

Meanwhile, the research findings indicate Payame Noor students’ satisfaction with welfare services, as Johnson’s study (1995) shows dissatisfaction towards financial & welfare services in South Africa. Generally, this study proves the above mentioned results & harmonizes with them.

Finding shows that the services provided by PNU have not met students’ expectations. According to their remarks in
face to face interview, managers & principals ignore their educational, financial & administrative affairs.1

In this paper cultural service, as a new variable has been studied. It explains research ingenuity and innovation that the paper tries to enlarge its range. The results indicate students’ dissatisfaction of the university cultural services. These services reinforce national & religious measures to make firm students’ Islamic-Iranian identity.

According to the research findings, Payame Noor universities are in a weak position culturally. Therefore, they need to rethink of their performances. The results indicate regression analysis is used to estimate scores between sex, age of the students & their satisfaction are rather weak & also, there is no significant relation among variables. Considering Herzberg et al (1956) hygiene- motivation theory, the students find no pleasure of studying since they are not satisfied with the services provided by university & also, it has not reinforced their motivations.

The health conditions of university could not lead to students' satisfaction of university.

According to Parter & Laler expectancy theory (1968) & relative deprivation (Iran& Heather, 2001), students compare their own conditions at university with other universities & then, they evaluate differences. As a result, they feel deprivation & dissatisfied because their expectations have not been fulfilled. As Parsonz cited (1951), constructive elements of society tend to cooperation so that a dynamic balance has been built. To increase students’ satisfaction requires effort. As a result, it may reinforce students’ cooperation with university & make a balance.

It is also necessary to solve students’ inter organization problems like providing their satisfaction with university services along with extra organization problems and then make it possible to enter social-economic cycle. With regard to promotion of students’ satisfaction level due to inter organization process, organization output will be affected. Therefore, skilled & professional people enter economic, social, cultural & political fields. Fulfilling such needs, it is necessary to consider the quality of management, educational, welfare & cultural services.

A remarkable increase in students' satisfaction rate, giving students plenty of positive reinforcement such as taking great pleasure in studying and also preferring PNU to other ones.

This helps to promote university growth. The university authorities attempt to fulfill their goals regarding educational management, cultural & welfare dimensions.

The result indicates the students’ satisfactions with the services are ranked lower in the Payame Noor universities of Iran.

To perform this study, it is important to set up a proposal fund, develop specific site, conduct a periodic satisfaction survey (for example, yearly) related to running programs & also, to control staffs & masters behavior.

Considering crucial factors such as curriculum development, using advance copies of printed books, providing possibilities & standard equipment, enriching the library through buying new books & also, establishing up-to-date & well-equipped laboratory; decreasing mandatory units & masters’ lessons; increasing research & study time to update with new information; organizing registration time & omitted, added units the same as other universities; giving needed respite for weak students to pay tuition, building self-service & recreation ground for students to use in their leisure time; holding scientific, pilgrimage & tourism visits for all the students get involved in different courses.

Supporting hard working and genius students to publish scientific issues, holding conferences, etc…. If the researchers make use of this topic regarding comparative method in other universities (governmental, Azad, nonprofit universities), the full scheme will appear & then one can generalize the yield results.

Acknowledgment

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1 Johnson research considers limited welfare services. It refers to tuition & financial problems. In Recoena’s study, social capital is classified as a welfare dimension.


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Table 1: students’ satisfaction rate of PNU regarding place of study (n=319)

<table>
<thead>
<tr>
<th>Row</th>
<th>variables: satisfaction with</th>
<th>% very much &amp; much</th>
<th>% very much /much /moderate</th>
<th>% little &amp; very little</th>
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<tbody>
<tr>
<td>1</td>
<td>Programs &amp; student affairs supervisions</td>
<td>21.6</td>
<td>63.6</td>
<td>46.2</td>
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<tr>
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<td>Holding midterm exam</td>
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<td>64.3</td>
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<td>70.3</td>
<td>38.9</td>
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<td>4</td>
<td>Access to master</td>
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<td>64.4</td>
<td>30.6</td>
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<td>5</td>
<td>Omitted &amp; added method</td>
<td>28.2</td>
<td>69</td>
<td>31</td>
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<td>Registration process</td>
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<td>33.2</td>
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<td>7</td>
<td>Holding problem solving classes</td>
<td>15.7</td>
<td>37.3</td>
<td>53.3</td>
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<td>8</td>
<td>Access to library</td>
<td>25.7</td>
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<td>46.4</td>
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<td>Access to their own professional book</td>
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<td>41.4</td>
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<td>15</td>
<td>37.9</td>
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<td>Prayer room condition</td>
<td>40.4</td>
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<td>Gym</td>
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<td>31</td>
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<td>Corridor &amp; stair cleaning</td>
<td>44.5</td>
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<td>Satisfaction of yard cleaning</td>
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<td>Food service</td>
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<td>Pilgrimage programs &amp; camps</td>
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<td>40.7</td>
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<td>9.6</td>
<td>41.7</td>
<td>58.7</td>
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<td>Continuing the study in the other universities</td>
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<td>87.3</td>
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<td>Cultural services</td>
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<td>48.98</td>
</tr>
<tr>
<td>4</td>
<td>Welfare services</td>
<td>29.35</td>
<td>59.02</td>
<td>40.98</td>
</tr>
</tbody>
</table>

Table 2: component rotation matrix of varimax & factor naming

<table>
<thead>
<tr>
<th>Factor1: Educational services</th>
<th>Factor2: management services</th>
<th>Factor3: Cultural services</th>
<th>Factor4: welfare-cleaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable //load factor</td>
<td>Variable//load factor</td>
<td>Variable//load factor</td>
<td>Variable//load factor</td>
</tr>
<tr>
<td>Classroom affairs</td>
<td>Security</td>
<td>Student mobilization</td>
<td>Cleaning classroom</td>
</tr>
<tr>
<td>Holding class</td>
<td>Supervision</td>
<td>Special programs</td>
<td>Cleaning corridor</td>
</tr>
<tr>
<td>Access to master</td>
<td>Response to complaints</td>
<td>Scientific associations</td>
<td>Cleaning yard</td>
</tr>
<tr>
<td>Exams</td>
<td>Cooperation</td>
<td>Conferences</td>
<td>Landscaping</td>
</tr>
<tr>
<td>Library</td>
<td>Supply of advance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional book</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gym</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total percent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3: Correlation between factors scores (University Services) and student satisfaction (319)

<table>
<thead>
<tr>
<th>Factor score regression analysis</th>
<th>Pearson correlation coefficient</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>A score of 1 (managerial)</td>
<td>0.597</td>
<td>0.000</td>
</tr>
<tr>
<td>2 score of 1 (Training)</td>
<td>0.472</td>
<td>0.000</td>
</tr>
<tr>
<td>Third score of 1 (cultural)</td>
<td>0.518</td>
<td>0.000</td>
</tr>
<tr>
<td>4 score of 1 (welfare)</td>
<td>0.185</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Table 4: model summary regression factor scores Services (University Services) with the consent of the University (318)

<table>
<thead>
<tr>
<th>Model at All variables in the equation</th>
<th>Regression coefficient</th>
<th>Squared coefficient of determination</th>
<th>Coefficient of determination</th>
<th>Squared standardized coefficients</th>
<th>Estimated standard error</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.940</td>
<td></td>
<td></td>
<td>0.884</td>
<td>0.883</td>
<td>5.42201</td>
</tr>
</tbody>
</table>

Table 5: ANOVA of factor scores and the satisfaction of the University

<table>
<thead>
<tr>
<th>The model</th>
<th>Regression</th>
<th>The remaining</th>
<th>Total</th>
<th>Sum of squares</th>
<th>Degrees of freedom</th>
<th>Mean squares</th>
<th>Test F (Fisher)</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6952.040</td>
<td>4</td>
<td>17488.010</td>
<td>594.866</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9172.250</td>
<td>312</td>
<td>29.398</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>79124.290</td>
<td>316</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Multiple regression of coefficient (factors) of students’ satisfaction

<table>
<thead>
<tr>
<th>Inter-factor model, coefficients are not standardized</th>
<th>standardized coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>81.964</td>
<td>0.305</td>
<td></td>
</tr>
<tr>
<td>Score of 1 on 1</td>
<td>9.507</td>
<td>0.306</td>
<td>31.078</td>
</tr>
<tr>
<td>score of 2 on 1</td>
<td>8.115</td>
<td>0.304</td>
<td>24.579</td>
</tr>
<tr>
<td>Score of 3 on 1</td>
<td>8.180</td>
<td>0.304</td>
<td>26.895</td>
</tr>
<tr>
<td>Grade of 4 on 1 analysis</td>
<td>2.908</td>
<td>0.304</td>
<td>9.557</td>
</tr>
</tbody>
</table>

Figure 1: Research Model for students’ satisfaction
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