

*Full Length Research Paper*

# University intellectual image impact on satisfaction and loyalty of students (Tehran selected universities)

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Today, increasing need, boosting quality of services in each two sectors (state-run and private) at higher education centers has caused researchers to study the influence of quality of services on satisfaction of students. Here, the problem is that positive and negative emotions are formed in mind of customers and satisfaction of customer is a subjective affair. If experience of two customers on the same and equal services is studied, one may be satisfied and the other may be dissatisfied and consequently, his/her selection will be based on his/her contemplation in this respect. The image of university means one positive attitude with regard to the place where there exists a very good and intimate relation among students, where the graduated take pride to the university where they have graduated from that university, where there is a national image towards it, where it is known as a research center, where there exists cultural cooperation, the place that student parties are active there and finally, the place that deserving facilities and amenities are offered. Hence, existence of a positive image on a university can bring about loyalty and satisfaction of students. The present study includes 3 hypotheses and methodology of the study which is based on descriptive-survey nature. Questionnaire is the main tool of the present study which was distributed randomly among 989 students. Partial least squares (PLS) were used for analysis of data and hypotheses test. The results show that image of university has meaningful effect on satisfaction and loyalty of students but brand image of the university has no meaningful and positive influence on expectations of students. Moreover, at this study, it was specified that quality of services, comprehended by the students, has direct and meaningful effect on satisfaction and value as comprehended by them. But it was clarified that expectations of students have no any meaningful influence on comprehended satisfaction and quality and also value comprehended by them. For preserving and safeguarding loyalty of students, marketing managers of the universities should take their utmost efforts to bring about special value for their brand. Loyalty is not created easily, but when it is created, it will last for a long time. Hence, result of the present study will have a very significant effect in concentrating on relations between students and brand for bringing about subjective value and image.

**Key words:** University intellectual image, expectations, perceived value, students' satisfaction, students' loyalty.

## INTRODUCTION

Any organization, as provider of goods and services, is duty bound to take views of its customers as feedback continuously with the aim of specifying shortfalls and bottlenecks, based on which all activities of the organization will be developed and optimized rapidly. Today, view of customer provides a basis for measuring

processes and a method for empowering personnel and staff of organization involved in presenting quality services and contributing in very important decisions. Generally, view of customer plays a very important role in materialization of most objectives of organization. In knowledge-based organizations, being informed of

rendering services is of the most fundamental mechanisms of management, details of which are of paramount significance. Gaining customers' satisfaction at these organizations will cause dynamicity of management bureau and will materialize most objective of the organization (Mohammadian and Khanbabazadeh, 2009). Complementary education has a similar behavior to business market and university, as a business unit, presents various types of educational products and services to a great number of users through training and educational centers. According to Keller and Staelin (1987), quality and quantity of information from university affects selection of students. Students and their families study various educational brands and institutes and give score to each one of them. Trade names and brands will create a bright situation in mind of consumers. In the same direction, well-known and reliable training institutes will have more chance to attract top university students and lecturers (Curtis et al., 2009). Although some managers of universities avoid introducing themselves as a marketer or university brand management, today, most universities, with identifying opportunities and involving in marketing activities, are pioneer for recognizing and creating brand of university. These institutes are trying actively in promotion of fame and brand (Alves and Raposo, 2009). Naming or selecting an appropriate brand is considered as one of the most important assets of an institute which plays a vital role in formation of positive approaches towards educational institute. Intangibility and inseparability of educational services will signify role of brand. Hence, comprehension of significance of development and management of differentiated brand will contribute safeguarding competitive advantage in educational sector (Alves and Raposo, 2009). According to Kotler and Fox (1985), image of an institute and its fame is much more importance than quality of services which it presents, because, this image is effective in selection of students (Landrum et al., 1998; James et al., 1999). Generally, this image is affected severely on satisfaction and loyalty of students (Clow et al., 1997; Eskildsen et al., 1999). For this reason, universities make hefty investment for recognizing their rivals (McPherson and Shapiro, 1998). According to Feller (1982), this effort and evaluation should not be carried out only in foreign section of the university; rather, such evaluation should be carried out by students, university lecturers and staff. That is to say that management strategy approach should include efforts for identification of image of university and also the way of improvement and revision of this image.

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**Abbreviations:** **PLS**, Partial least squares; **CSI**, customer satisfaction indexes; **CFA**, confirmatory factor analysis; **CR**, composite reliability; **AVE**, average variance extracted.

Effective management of university image can help university through the following ways:

- 1) Compiling and formulating effective relations with students.
- 2) Boosting market share.
- 3) Increasing and improving competitive situation (Wilson, 1999).

Yavas and Shemwell (1996); Landrum et al. (1998); Para Meswaranan in their studies on image of university found that higher education institutes need safeguarding or setting up a differentiated and different image as a competitive advantage in competitive markets. One of these reasons is its effect on inclination of students for applying enrolment and its other reason can be attributed to the selection of reliable educational institutes for fulfilling researches (Alves and Raposo, 2009). However, in literature, image of university has been studied as image comprehended by students and the way of effect of this image on behavior. That is to say that this study and research places special emphasis on collecting information which studies significance of intellectual image of university on students and its effect on satisfaction and degree of their loyalty.

## INTELLECTUAL IMAGE AND ITS EFFECT

### Concept of image

Effect of image of companies has been studied by many researchers. This effect can be divided into some sections: name, general value of promotion, pleasant behavior with regard to a company, its effect on product sale, production differentiation, attraction of staff and shareholders, establishing relation with society and government, influence on behavior, familiarity and utility. According to Kotler and Fox (1985), an image is a general feeling or perception that a person contemplates on a subject and can result from incomplete information and/or due to the difference in different individuals of an institute. Since organizations establish direct contact with different individuals, one company has not an image; rather, it has complex of images. (Dowling, 1988) Evaluation of image specifies what the weak points of an institute? And what tool is needed for establishing relation?

Kennedy (1977) studied image in two perspectives. According to him, cognitive and emotional variables are two dimensions of image. As a matter of fact, image is a conceptual phenomenon which is interpreted by logic and feeling. Cognitive variables are credence and beliefs and emotional variables are feelings (Alves and Raposo, 2009). As a cognitive and relational process, image of university is known like production perception. Consequently, image of an institute received information

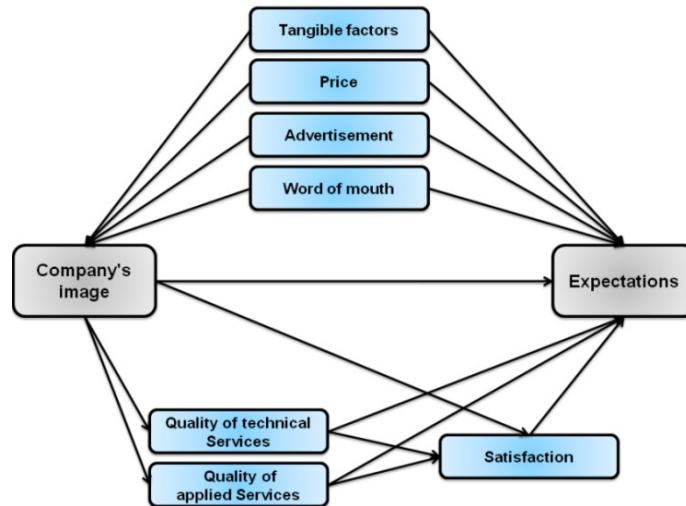


Figure 1. Company's image model proposed by Clow (1997).

from that institute which is affected by tangible and intangible elements of organization, relations and social and personal values. According to PhRMA (1982), image of university is combination of ideas with relation to university, curricula, quality of teaching and also quality of communications.

### Impact of intellectual image

During 1980s and 1990s, there was principle and belief growth that those universities that were not faced with severely business and competitive environments, moved towards strategy of studying quality of presenting services and pertinent factors. This method was very controversial for obtaining competitive advantage at this environment (Poole et al., 2000). However, it seems that relatively less official research activities have been carried out to concentrate on stimulus of satisfaction of customers among students (Mazzarol and Soutar, 1999). Beyond economic vastness, university section will present interesting environment for research study in the field of marketing services. For example, in 2004 to 2005, income rate of this section was reduced up by 41% as a result of direct role of Federal Government of Australia and the rest of income was provided by tuition fees and various costs paid by students (Nelson et al., 2005).

In contemporary world of today where higher education introduces it as a very important service commodity and students are its customers (Australian Senate, 2001; Meek and Wood, 1998; Moodie, 2001), it seems that factors, which motivate satisfaction of customers, are worthy of being studied. Since nature of western economies, ranging from mass production and consumption of goods to production of goods and different services, are changing, development of customer new

strategies, entitled "customer satisfaction indexes (CSI)," seems rational and logical for evaluation and increase of performance of economies of national economic, industrial sectors in delivery of goods and services to consuming customers (Fornell et al., 1996).

As a tool for boosting performance, effective efforts have been carried out in Iranian universities for improvement of presenting services to the students. However, there are little research evidences to support concentration on improvement in satisfaction of customer as a method for providing competitive advantage at Iran higher education market. Providing transparent advices on the most powerful stimulus of satisfaction of customer in a university situation is the main objective of the research project and also whether concentrating on elements like improvement of image, provision of hardware and customer-oriented services, etc are justified with probability of increasing loyalty of customer or not. Some studies have proved that image of university has high impact on loyalty of students.

According to Oliver (1997), loyalty of customer will cause increasing request of service or goods and his/her repurchase in future. Although impact of situational factors and marketing efforts can also result in behavior change, inclination of students to mentioning positive points about a training institute and their advices to other students and friends and/their recurrence to the same institute for continuation of studies indicates their loyalty to a university or a training institute. After graduation, loyal students may prove their loyalty with their support from institute both in scientific and financial terms and in terms of advising the institute to present, past, and future students. Under general condition, satisfaction can be observed as a process and/or a result. With due observance to its nature, satisfaction can be studied as cognition or feeling forms. The model proposed by Clow

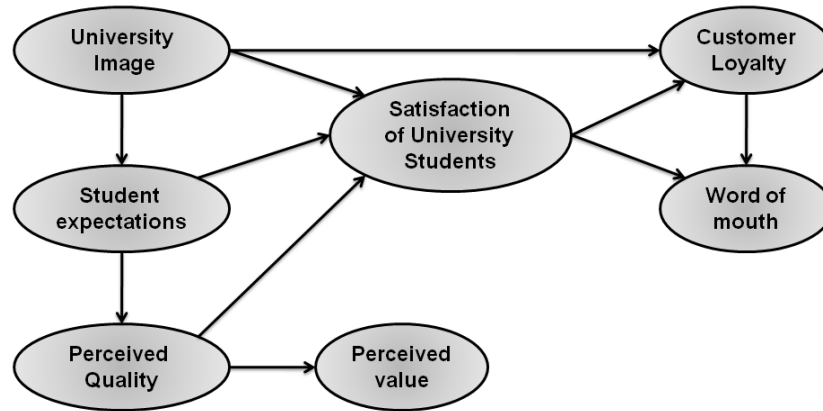


Figure 2. Conceptual model proposed by Alves and Raposo (2009).

(1997) in Figure 1 of company's image is affected with tangible factors, price, advertisement and publicity and this image is studied directly and indirectly on satisfaction of individuals thanks to the comprehended quality. Clow et al. (1997) in their studies concluded that impact of intellectual image on satisfaction can be confirmed only in some service industries (Alves and Raposo, 2009).

Andreessen and Lindestad (1998) approved that image of company is effective on satisfaction of customer especially if customer had partial information on services of company. Hence, with due observance to the significance of the subject and lack of studies carried out in the field of higher education in the country, the following hypotheses are presented with the aim of making effort for development of knowledge in complementary studies.

### Research hypotheses

**H<sub>1</sub>:** Image of university has meaningful impact on satisfaction of students.

**H<sub>2</sub>:** Image of university has meaningful impact on loyalty of students.

**H<sub>3</sub>:** Image of university has meaningful impact on expectations of students.

### RESEARCH METHODS

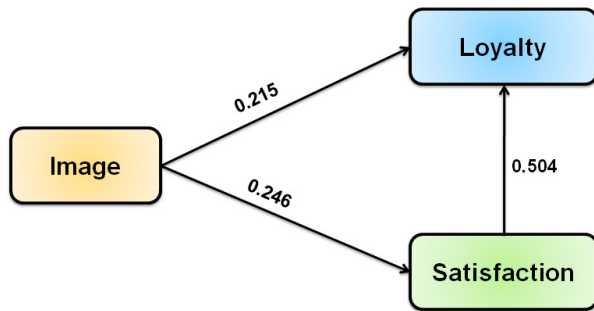
The scientific studies are classified based on two basis of: objective and method of collecting information. Studies based on objective include three groups: fundamental, applied and scientific. (Hafeznia, 2003) The methodology of the present study is based on applied objective, because, it enjoys applied results and its results can be applied as well. These studies apply theories, principles, criteria and techniques, which are compiled in fundamental researches, for solving realistic and executive problems. (Khaki, 2008) Also, the present study is a descriptive-survey study in terms of nature and method. Students of selected universities in Tehran constitute subject of the present study. For selection of

statistical subject of the present study, a number of eight universities, from among other universities in Tehran, were selected. With the aim of materialization of objectives of the present plan, national satisfaction index, according to literature of study (for example Fornell, 1992) and with the aim of measurement of satisfaction and loyalty, it seems that this study should be carried out with considering background and adapting it with the results and model as applied in Figure 2.

### Data collection method

With due observance to lack of technical possibility for selection of all students from higher education centers in Tehran, some universities, out of total universities based in Tehran, were selected as sample. As mentioned earlier, students of selected universities, based in Tehran, were considered as subject of the present study. Four universities from Islamic Azad University and four universities from other university were selected as sample and selected universities of Tehran. The sample group was selected randomly from among students of various faculties of the selected universities. Finally, 989 students were selected as sample from all selected universities for reaching total 100,000 students. Thanks to the combination of gender of sample, 60.6 and 39.4% constituted female and male students respectively. At this study, random sampling method has been used. Morgan sampling table was also used for estimation of sample volume. According to Morgan sampling table, at least 381 sample should be selected in a way that 989 sample were selected at this sample.

With due observance to the objectives considered for this study, questionnaire was used for measurement of data. The used indicators at this study were of the indicators that had been tested in various previous studies. Mostly, these indicators were in compatible with realities of higher education. Hence, some scales are carried out all over the questionnaire for reducing standard error and size of required sample with the aim of fulfilling more validity and reliability. For measurement of intellectual image, indicators and specifications used in studies, carried out by Martensen (1997) and Jagun et al. (1999), and national indicator of customer satisfaction was applied. For designing questionnaires at the present study, some articles have been used in the field of impact of university image on satisfaction and loyalty of students. The questionnaire of the present study includes two parts. The first part is related to personal and individual information of students while the second part includes questions which have been considered for measurement of research model. The initial distribution with 50



**Figure 3.** Conceptual model of present study.

questionnaires was carried out randomly among students attended at Tehran international book fair. In the beginning, 50 questionnaires were distributed among students participated at Tehran international book fair. After collecting questionnaires, gathered information, viewpoints, and proposals were studied and finally, its reliability was calculated. It should be noted that changes were made in questionnaire for many times and eventually, final distribution of questionnaire was carried out.

#### Data analysis

After extraction of information at the present study, summarizing and classifying statistics data were carried out. This work was carried out with setting up redundancy tables and through using advanced statistical package for the social sciences (SPSS) software package. Bar diagram has also been used for displaying the way of distribution of characteristic in sample. Then, Mann-Whitney and Kruskal tests were used for studying situation of research variables between sample individuals. Route coefficient test was used for ranking structures of research. At the present study, structural equation modeling has been used for processing data. It should be noted that structural equation modeling is a general and powerful multivariate analysis technique of multivariate regression family. In other words, structural equation modeling is extension of general linear model which empowers researcher to test complex of regression equation simultaneously. Structural equation modeling is a comprehensive statistics approach for testing hypotheses on relation between observed variables. Sometime, covariance structural analysis is called causal modeling and sometime as Lisrel (Hooman, 2008). Structural equation modeling is a multivariate method with the aim of showing causality and based on analysis of route with latent variables. Recently, structural equation modeling has applied numerously in behavioral and social sciences for multivariate data processing (McDonald and Ringo, 2002). In this study, methods based on Lisrel will not be responsive practically. On the other hand, this method is not dependant on normalization of subject and researcher can design his model easily without being worried from subject distribution situation. The estimated model has been presented in Figure 3. In this figure, more details have been presented as standardized regression weight form.

According to the fore-mentioned model, structural equations can be clarified according to the following form which is obtained based on direct relation of studied structures on each other:

$0.50 \times \text{satisfaction} + 0.21 \times \text{image} = \text{loyalty}$ . The results of variables analysis is in the Table 1.

With due observance to Table 1, it is specified that all amounts enjoy "t" amount above 2. Therefore, all selected questions enjoy

high accuracy for measurement of structures and their validity and reliability are approved as well. Accordingly, it is specified that selected indicators enjoy appropriate correlation with factorial basic of research plan. Therefore, with due observance to the necessary precision for measurement of research structures, causal relation between structures of study is discussed at this stage. Firstly, route coefficient amounts are judged through the application of "t" indicator between studied variables. Research hypotheses test has been shown in Table 2 which hypotheses of study are analyzed based on results of this table. After studying study measurement model and refining pointers of study, hypotheses test can be discussed. Hence, correlation coefficients were calculated before this activity with regard to the relation between structures in model within framework of a correlation matrix as follows, based on which, saturation of research model can be explored.

## RESULTS AND DISCUSSION

According to Table 3, it is specified that correlation of each structure with other structures is less than average second root amount of its variance. Therefore, results show that clarified variance average amount inside pointers of each structure is more than correlation amount of the same structure with other structures. It shows that pointers of each structure have the highest correlation with its structure and also the least correlation with other structures. In the same direction, discernible validity has also been approved within the framework of convergent validity and pointers have tested precisely the thing which researcher has expected. With obtaining information based on validity of each one of structures and also winning assurance of their reliability within framework of CR indicator, research hypotheses test of structural section of studied model can be discussed.

**H<sub>1</sub>:** Image of university has direct and positive effect on satisfaction of students. According to Table 4, the amount of 0.246 route coefficient enjoys "t" amount above (3.534) 2. Hence, null hypothesis in area of one percent error is rejected and opposite hypothesis is accepted. It clarifies that image of university has direct and positive effect on satisfaction of students. In other words, with due observance to existing positive coefficient, any type of improvement in image of university will increase satisfaction of students.

**H<sub>2</sub>:** Image of university has direct and positive effect on loyalty of students. According to Table 4, the amount of 0.215 route coefficient enjoys "t" amount between 1.64 and 2 (1.79). Therefore, null hypothesis in 0.5 error area is rejected and opposite hypothesis is accepted. It clarifies that image of university has direct and positive effect on loyalty of students. In other words, with due observance to the existing positive coefficient, any type of improvement in image of university will increase loyalty among students.

**H<sub>3</sub>:** Satisfaction of students from university has direct and positive effect on their loyalty. Based on Table 4, 0.504

**Table 1.** The results of variables analysis.

<b>University image</b>	Q <sub>13</sub>	0.649	6.493	0.076	0.84	0.62
	Q <sub>14</sub>	0.727	7.156	0.122		
	Q <sub>15</sub>	0.776	12.582	0.078		
	Q <sub>39</sub>	0.541	4.258	0.511		
	Q <sub>41</sub>	0.438	3.683	0.323		
<b>Satisfaction of university students</b>	Q <sub>1</sub>	0.718	11.837	0.035	0.78	0.74
	Q <sub>7</sub>	0.419	2.326	0.127		
	Q <sub>11</sub>	0.638	7.231	0.086		
	Q <sub>16</sub>	0.865	12.559	0.049		
	Q <sub>26</sub>	0.665	7.172	0.091		
<b>Students loyalty</b>	Q <sub>31</sub>	0.728	2.375	0.196	0.77	0.63
	Q <sub>2</sub>	0.912	20.439	0.0212		
	Q <sub>5</sub>	0.495	3.657	0.187		
	Q <sub>6</sub>	0.640	8.698	0.087		
	Q <sub>8</sub>	0.698	9.342	0.072		

**Table 2.** Correlation matrix of variables studied.

	1	2	3
University image	1.000		
Satisfaction of university students	0.69	1.000	
Students loyalty	0.59	0.68	1.000

**Table 3.** Correlation matrix between the variables studied correlated with the amount of square root of variance.

	1	2	3
University image	0.72		
Satisfaction of university students	0.69	0.81	
Students loyalty	0.59	0.68	0.806

**Table 4.** Path analysis of variables studied the effects of their significance.

University image	Students loyalty	0.215	1.79	0.04	0.425
Satisfaction of university students	Students loyalty	0.504	5.277	0.02	0.436
University Image	Satisfaction of university students	0.246	3.534	0.01	0.628

route coefficient amount enjoys "t" amount above 2 (5.227). Hence, null hypothesis in one percent error area is rejected and opposite hypothesis is accepted. It clarifies that satisfaction of students from university has direct and positive impact on their loyalty. In other words, with due observance to the existing positive coefficient, any kind of increase on satisfaction of students from

university will increase their loyalty.

These studies in higher education show that intellectual and mental image of university can affect on satisfaction and loyalty of students tremendously. In the same direction, higher education institutes should compete with each other through this image. The first step is measurement of intellectual image from university by

students. Proving the way of formed image should be exercised by the students at the second step with the aim of better reflection of positive image of university. Generally, the present study will help deepening knowledge on university and its image and importance for higher education institutes in safeguarding current students as well as attraction of new students. Suggestions for future studies would be:

- 1) Study of university intellectual image impact on eyeing new markets,
- 2) Since costs increase or decrease quality has not been considered in implementation of marketing and its effect at university in the present study, it is proposed that future researchers study more on affectivity of implementation of this strategy on university costs rate.

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