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THE RELATIONSHIP BETWEEN THE FACTORS THAT FORM STUDENTS' LOYALTY TO THE UNIVERSITY

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Abstract. *The key objectives of this study were to study the links between the perceived value of students, the image of the university and student satisfaction with student loyalty and to describe the relationship between the influence of intermediary variables in the student loyalty model. The model was tested using the methodology of finding the average value of loyalty. Empirical data were obtained from 100 students from five top universities in Kazakhstan. During the collection of information with an error of 1%, the questionnaire method and multi-stage sampling methods were used. Data analysis with descriptive statistics was used to test the hypothesis of the model. The results of this study showed that student satisfaction and two other variables: the image of the university and the perceived value of students have a positive impact on student loyalty. Moreover, the results also show that the perceived value of students was what most affects the image of the university, and strongly indirectly affects student satisfaction. The influence of perceived value also has a connection of student loyalty through student satisfaction. The main issue is the influence of the student satisfaction variable, which has the greatest direct impact and conveys the relationship of relative influence between the preceding variables and the dependent variable. In conclusion, student satisfaction was a mediating variable, and this implied that student satisfaction was a major factor in student loyalty.*

Keywords: *Student loyalty, Student satisfaction, University Image, Student Perceived Value, Commitment.*

I. INTRODUCTION

Currently, there is a sharp leap in the world in the field of higher education. This is explained by a multi-level system and the need for narrow knowledge in certain areas. As of 2023, there are 128 universities in Kazakhstan, and for example in Ukraine, their number has already reached 657. The most interesting thing is that the need for education will only grow; therefore, the number of universities will increase.

Consequently, competition is becoming more and more intense in the market among universities. Attracting and retaining students can help higher education administrator's better make decisions regarding the allocation of limited resources [1]. Therefore, understanding student retention and student satisfaction should be the most important issues to determine the most appropriate strategic management to ensure the long-term success of both public and private institutions.

Based on the literature review data, it is emphasized that student satisfaction was the dominant variable for student loyalty, and both of them interact positively. In short, this means that when students were satisfied with the university, they showed a positive attitude and behavior towards the educational institution.

It was clear and expressed by word of mouth and fashionable words about the good reputation of the university, which was a positive indicator that students would continue their studies at the university. The most important task is to increase student satisfaction and loyalty, especially for private educational institutions [2].

Several reasons for student loyalty have been found as a key goal that many higher education institutions strive for, including :

1) Tuition money is the main source of income for most private universities. Retaining students means creating a strong and a predictable financial basis for the future activities of the university.

2) The theory of marketing services based on the participation of buyers, indicates that a student who is loyal to his educational institution can positively influence the quality of teaching through active participation and interested behavior.

3) After graduation, a student who shows loyalty can continue to support his/her educational institution(s) financially; (b) by distributing information to other potential, current or former students; and (c) through some form of cooperation.

As mentioned above, it is shown that high competition in private higher education would greatly affect the stability of private higher education institutions, which prompted and provoked the researcher's interest in conducting this study. In this regard, the purpose of this study was to find a correlation and attachment between four latent variables, namely: student loyalty, student satisfaction, university image, and perceived value of students. Using simulation of multi-stage random sampling to find the interrelationships and influences of the preceding variables on student loyalty, and also examines the influence of student satisfaction as a constraining variable that mediates the relationship linking the perceived value of the institution, the image of the institution with student loyalty.

II. LITERATURE ANALYSIS

2.1. Customer loyalty

Loyalty in the field of education is becoming one of the priority factors for the growth of competitive advantage and, therefore, it is necessary to direct efforts to create and retain competitive advantages based on loyalty to the educational services provided in this institution. Loyalty reflects loyalty to the goals, ideas and values of the institution, the direction of its activities.

Competitiveness of educational institutions is given by such aspects of the organization as popularity, prestige, and demand for graduates in the labor market after graduation from an educational institution, compliance of the training of graduates with modern requirements of the economy and society and the conditions of globalization of the educational space. Factors such as a sense of the importance of learning, the friendly attitude of the management, the developed technological and household infrastructure of the institution, confidence in the positive prospects of their future employment play an important role for the student.

Customer loyalty still attracts the attention of scientists because of its deserved importance. Consequently, this term has a wide range of meanings. For example, R.

Oliver believed that loyalty is a stable purchase of goods or services from the same brand, despite the presence of various obstacles and competitors in the market [3].

Jiang and Zhang, on the contrary, defined loyalty as an intangible emotional connection between a company and customers. This sympathy and connection make people purchase goods and services [4].

Customer loyalty can also be classified by type. Candampulli believed there are two types of customer loyalty: a) active loyalty and b) passive loyalty. The company can have active and passive loyal customers. Both types are valuable, but active loyalty has become more important due to the widespread use of the Internet and social networks [5].

Unlike Candampulli, Dick and Basu divided customer loyalty into 4 types based on two dimensions of relative attitude and constant patronage; these types or groups include, namely: a) lack of loyalty, b) loyalty, c) hidden loyalty and d) false loyalty. Marketing specialists and companies should take this kind of loyalty into account in their research because of its important impact and consequences [6]. Recognizing these concepts allows to delve into the topics of loyalty in the field of higher education.

2.2. Student Loyalty

After analyzing the definitions from the literature of Helgesen & Neseti and Thomas, it can be concluded that student loyalty refers to the loyalty of a student after his or her stay at an educational institution [7]. This type of loyalty has both a short-term and long-term impact on the educational institution.

According to Henning-Turau, the student loyalty is a mixture between the willingness of students to express positive feedback about an educational institution and recommendations about an educational institution to family, friends, relatives and companies at any opportunity [8].

Students who show loyalty have a positive impact on the quality of teaching through active participation and purposeful behavior. Rodie and Klien substantiated this idea in their writings [9].

Consequently, university administrators, by maintaining long-term loyalty and student satisfaction, directly increase the stability of academic institutions. So loyal students are ready to pay tuition fees, participate in scientific activities and recommend an educational institution to friends and relatives.

According to Kend, perceived quality of service and student commitment are the main factors driving student loyalty [10]. The quality of service, trust and emotional commitment are consistently positive, strong and meaningful.

Helgesen Eyvind and Nettet Erik attentively studied the relationship between the quality of service, amenities, student satisfaction, image and student loyalty. They reported that satisfaction directly affects loyalty [11].

Rojas-Mendes et al. reported that students' trust and satisfaction have some indirect effect on loyalty. The authors established relationships in the following direct order: perceived quality of service, satisfaction, trust and commitment [12].

Orozco Encinas and Cavazos Arroyo also reported that the loyalty of graduate students to their alma mater can be explained by commitment and participation in the joint creation of the service [13].

2.3. Student Satisfaction

Satisfaction is the general attitude of a customer to a supplier's service or an emotional reaction to the difference between what customers expect and what they receive, in this case in relation to meeting some needs, goals or desires. The importance of meeting the needs of students for their retention in commercial institutions meeting the needs of accepted students is also important for retention. It could be argued that dissatisfied students can reduce the number of courses or drop out of college completely. Consequently, the student's satisfaction or dissatisfaction leads to the intention to stay or quit, which in turn leads to the retention or retirement of students according to Kara and De Shields [14].

Moreover, according to Douglas, there is a positive correlation and a significantly strong effect between student satisfaction and their loyalty. It was also found that where students have a choice, the relationship between satisfaction and loyalty is linear, as satisfaction increases, loyalty also increases [15].

Hypothesis 1: Student Satisfaction has a linearly equal positive effect on Student Loyalty to an educational institution

2.4. University Image

An image is a complex impression that a person has about an object. It is based on partial information and differs from various institutions, a definition according to Kotler and Fox [16].

Gronroos found that Image influences consumers' perception of companies' communications and operations in many aspects [17]. These aspects include communication between students, in other words, word of mouth.

Organizations would be considered to have a good image if customers believed that they could receive benefits or interests from organizations. A favorable corporate image of a firm can be useful in a competitive market, as it can distinguish a firm from its competitors. A good image elevates the organization above its competitors and stops the buyer's choice on itself.

Alves & Raposo emphasized in their works that image always acts as one of the variables that have the greatest direct impact on satisfaction, and also has a significant impact on loyalty [18].

According to literature reviews by Mohamad and Brown & Mazzarol, it was found that the image of the university directly and positively affects the loyalty of students. They also found that the effect of student satisfaction significantly mediates the relationship between the image of the university and the loyalty of students [19].

Nevertheless, the image is the one that has the greatest impact on the process of satisfaction formation, but there are other prerequisites that affect the image of the university and the consequences of student satisfaction. Here the following hypothesis is formed:

Hypothesis 2: The image of the university has a clear positive impact on student satisfaction

2.4. Perceived value of the student

Perceived value is defined as the final assessment by the buyer of the usefulness of a product or service based on the perception of what is received and what is given, definition according to Zeithaml [20].

At a University or Institute, a student's overall assessment of the net value of a service is based on the student's assessment of what is received (benefits provided by the service) and what is given (costs or sacrifices in acquiring and using the service). Meanwhile, the student's general perception of the value of service has a positive effect on the student's satisfaction with the service.

According to a literature review by Andersen & Lindstead, it becomes clear that perceived value has been identified as a satisfaction factor. As for the relationship between perceived value and satisfaction, it was discovered that the perceived value of a student directly and significantly affects student satisfaction, but does not have a significant and direct effect on student loyalty. Moreover, these scientists found out that the value perceived by students directly affects student loyalty through student satisfaction [21].

However, the perceived value of students also has a related impact on the image of the university and the trust of students. As already mentioned, it examined the indirect causal relationships between the perceived value of students and the loyalty of students, which was mediated by student satisfaction, in addition to studying the direct relationship between student trust and the image of the university. Thus, the following hypothesis was formulated:

Hypothesis 3: The perceived value of a student has a direct impact on the image of the university

Hypothesis 4: According Hypothesis 3 perceived value indirectly, but significantly affects student's satisfaction, through university image.

III. OBJECT, SUBJECT, AND METHODS OF RESEARCH

3.1. Population and Samples

The object of this study were students of 1-5 courses of private higher educational institutions in Kazakhstan, the city of Almaty.

The subject of this study is assessment of various factors and the relationship between them on the loyalty of students to higher education institutions

The students in the research sample were recruited from full-time students. The study involved students from the following universities: the International Information Technology University (IITU), the Kazakhstan Institute of Management, Economics and Strategic Research(KIMEP), the Kazakh-British Technical University (KBTU), the Kazakh National Medical University KazNMU, and the Kazakh-Russian Medical University (KRMU).

When collecting data, *the method of multi-stage random sampling* was used with an error of 1% in the sample size. Multi-stage sampling gives researchers with limited means and time a method of sampling from such populations. This sampling procedure

is essentially a way to reduce the population by dividing it into smaller groups, which can then be the subject of random sampling. As long as the groups have low intergroup variance, this form of sampling is a legitimate way to simplify the population. The multi-stage sampling form is flexible in many senses. First, it allows researchers to use random sampling or cluster sampling after defining groups. Secondly, researchers use multi-stage sampling indefinitely to divide groups and subgroups into smaller groups until the researcher reaches the desired type or size of the group.

The total sample consists of 100 students; 69 women and 31 men, with an effective response rate of 100%. Of the respondents, 48% are IITU students, 22% are KazNMU students, 13% are KRMU students, 10% are KIMEP students, and 7% are KBTU students.

3.2. Measure of concepts

This research was quantitative and used the construction in the model of Thomas, Mohamed and Helgesen and Nettet. Usually this model is used to display links. In economics, it is needed for grouping between variables. The advantages of this model are data integrity, clarity of information location and convenience in graphical display. The model has been redesigned both latent and explicit variables according to the environment and culture of the population to be studied.

The average amount modeling approach was used to test the model. Advantages of average amount modeling approach:

- Works great for aggregates whose values add up easily;
- Simply calculated: fold, divide and conquer;
- Intuitively, the arithmetic mean for us is just a "number somewhere in the middle" between the largest and smallest value.
- Perfect for comparing individual groups.

Therefore, this procedure allowed to fully testing the proposed model structure. Each design was covered by a set of several questionnaire items.

The questions concerned were a questionnaire requesting information about constructs of four latent variables that include student loyalty, student satisfaction, university image, and perceived value of students.

Table 1. Answer options in the questionnaire

Student satisfaction	Student loyalty
Very dissatisfied	Very dissatisfied
Dissatisfied	Dissatisfied
Neither dissatisfied or satisfied	Neither dissatisfied or satisfied
Satisfied	Satisfied
Very satisfied	Very satisfied
University image	Perceived value of students
Very dissatisfied	Very dissatisfied
Dissatisfied	Dissatisfied

Neither dissatisfied or satisfied	Neither dissatisfied or satisfied
Satisfied	Satisfied
Very satisfied	Very satisfied

To measure independent and dependent variables, the Liberty data format was used in the form of an ordinal number in order to use descriptive statistics to summarize data collected in simple numerical form. In the measurement model, 8 indicators were used to measure the study of hidden constructs; student loyalty (2 indicators) student satisfaction (2 indicators) and the image of the university (2 indicators) and the student's perception of value (2 indicators)

IV. RESULTS

4.1. Analysis of the results of the student survey

For ease of analysis, the components in the table below have been divided into several sections and calculated for each university from which the students were interviewed. The loyalty section includes commitment and frequency of recommendations. In the satisfaction section, there was satisfaction with educational programs and teaching staff. In the image of the university, there were questions about the availability of grants and the recognition of the educational institution. Finally, in the “Perceived value section” there was help for students with work, a place of practice and events held for them.

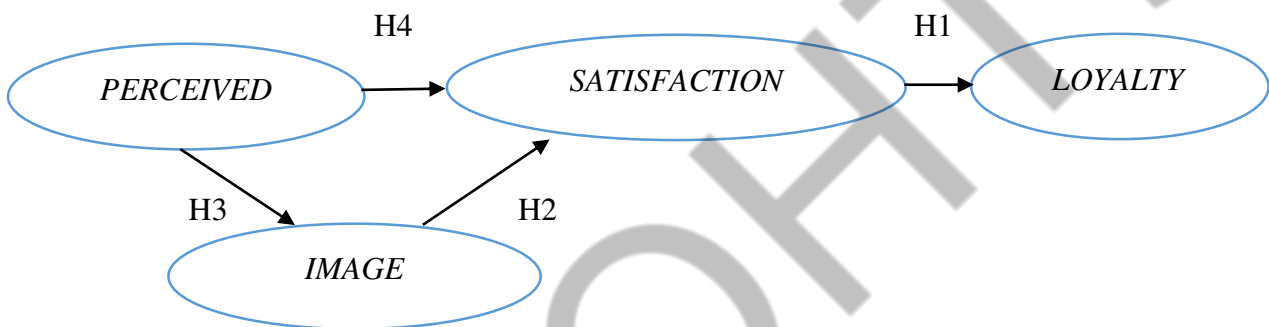
Table 2. Loyalty level results of five universities

Latent Variable	Indicators	IITU	KazNMU	KRMU	KIMEP	KBTU
Student loyalty	Commitment	2.7	2.6	2.4	2.5	2.3
	Recommendations	2.8	2.6	2.3	2.5	2.3
Student satisfaction	Satisfaction with the teaching staff	2.7	2.4	2.4	2.5	2.4
	Satisfaction with the edu program	2.6	2.5	2.4	2.6	2.4
University Image	Availability of grants (for research)	2.5	2.0	2.3	2.5	2.5
	Recognition	2.5	2.6	2.3	2.6	2.4
Perceived value	Help from the university (place of practice)	2.5	2.9	2.8	2.7	2.3
	Availability of educational activities	2.8	2.2	2.3	2.6	2.5
Average		2,7	2,5	2,4	2,6	2,4
Note. Prepared by the auther based on the survey						

According to the survey, the attitude of students to the university was calculated by identifying the average value of the numbers assigned to the components. IITU University received the highest loyalty, KBTU and KRMU received the lowest. During the calculation of the data, a certain sequence and explanation of the answers in different categories were revealed.

4.1. Testing the Hypotheses

The figure below represents a certain relationship between the latent components. The results of the students' responses confirmed the hypotheses put forward earlier. More precisely, that satisfaction affects loyalty. Moreover, the satisfaction itself falls under the power of the image of the university, which is formed under the influence of the perceived value of students.



Note. Prepared by the author based on the survey
 Figure 1. Latent Variables Relations Model

As evidence, the study can give data about IITU and KRMU. The overall loyalty index in IITU was 2.7 in KRMU 2.4. As a result, the components of the Perceived value of IITU are higher than in KRMU. Consequently, such indicators as “Image of the university”, “Satisfaction” and “Loyalty” are also higher at IITU. That is, the perceived value determines the low or high value of the remaining elements. This means that the figure above and all the hypotheses formed above are proven.

4.2. Proof of the hypothesis on the example of IITU

IITU takes care of the perceived value by the student. To do this, the following management actions are carried out at the university:

- The university has a career center. Here, students are offered vacancies for employment after graduation. Students can also looking for a place to practice in this center while studying.
- There are a large number of student organizations where students can practice hobbies and find friends with common interests.
- The university also hosts many events at the level of the city and the republic. For example, the Miss IITU beauty contest. The finalists of this contest often participate in Miss cities, even going to the Miss Kazakhstan contest. Also at this university, a winter ball, dedication (where famous bands perform) and

many other events are held.

Since students have received value from the university, they are motivated for scientific activity and win prizes in competitions. Which greatly enhances the image of the university. For example, students of this university often take prizes in the YDF, in republican Olympiads and many other competitions. There is also an innovation center at the university. Innovation center of IITU released many projects that have gone on sale at the country level or have benefited free. Examples of these projects:

- Tazalyk is an application that allows you to establish communication between producers and recipients of garbage. Tazalyk solution: all recycling collection points are marked on the map; The opportunity to earn bonuses by handing over garbage to collection points and exchange bonuses for valuable prizes and services.
- GLUCOMED is a mobile application for monitoring blood sugar levels. The functionality includes: blood sugar level determination, self-monitoring diary, carbohydrate value database of products, insulin bolus calculator, structured data export
- Ui januarlary - The book will give children the opportunity to study pets using a mobile application with AR technologies.
- Sound accompaniment and visual effects will help the child to develop memory and associative perception of animals much faster.
- The book is completely in three languages: Kazakh (Latin), Russian and English.
- Boshon - Educational courses on robotics for schoolchildren and students within the framework of the project "School of Robotics Boshon IT School MUIT"
- OkuPlus is an online educational platform, training in IT professions.
- Boursak is a mobile game for children that teaches children the Kazakh language.
- Jaqsy is a charity cashback service.

At IITU, the students receive beneficial value from the university and study in a prestigious place at a university with a good image. Therefore, they feel better than their peers do. So they become satisfied. Moreover, satisfaction is almost synonymous with loyalty

So, going through the reverse order of hypotheses, it can be considered proven that loyalty depends on satisfaction, and satisfaction depends on the image of the university and perceived value by the students.

V. CONCLUSIONS

The analysis of scientific literature devoted to the search for factors forming student loyalty and the links between them is reduced to several main components. First, loyalty depends on satisfaction. Satisfaction is based on the image of the university. The image of the university depends on the third last component – perceived value of students. Based on these data of the literature review, theories about the relationship of these components are formed.

In the practical part of the research work, a survey was conducted among

students of five top universities in Kazakhstan. The questions were created based on an average sum modeling approach. After evaluation and counting, the results were grouped according to the model of Thomas, Mohammed, Helgesen and Nettet. All latent variables were placed in the table and each was assigned its own value according to the results.

The results of the study showed that IITU students are the most loyal, because their average value of latent variables turned out to be higher than that of other universities. In terms of testing hypotheses, it turned out that the university system is just the same adjusted to model of Thomas, Mohammed, Helgesen and Nettet. The evidence were:

- Maintaining perceived value of students through employment and themed clubs and events
- Directing gratitude from perceived value to motivate students to scientific activity and victories in this field. Thereby raising the image of the university.
- The image of the university, in turn, affects the attraction of qualified teaching staff and the availability of competitive educational programs. The last two points have a very strong effect on student satisfaction, which directly affects loyalty.

Thus, the hypotheses put forward at the beginning of the study about the relationship between loyalty, satisfaction and the image of the university and the perceived value were confirmed. The order of these components was also confirmed, for the greatest efficiency

In conclusion, study suggests some specific areas for improving higher education institutions, based on the examples of IITU University to create satisfaction among students. To counter this, institutions must recognize student retention activities by initiating institutional student satisfaction. These can be a variety of activities, depending on the background, institutional nature, location, as well as institutional philosophy.

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