

EVALUATION OF EFFICIENCY OF PREPARATION OF COMPETITIVE PERSONNEL IN EDUCATION

¹Khamidov Obidjon Khafizovich, ²Kakhkhorov Otabek Siddikovich

ABSTRACT--- *The article highlights the issues of the effectiveness of managerial activities of higher educational institutions, factors and the interaction of the effectiveness of the management process and the management system, indicators of assessing the effectiveness of an educational institution, and the priority of training departments*

Keywords--- *competitive, management process, management efficiency, determination of effectiveness, competitive personnel, assessment methods, level of alternativeness.*

I. INTRODUCTION

The adoption of the Law on Education and the national training program in the Republic of Uzbekistan created the basis for ensuring the active participation of young people in ongoing large-scale reforms, the consistent implementation of state youth policy aimed at raising a highly spiritual, free and independent thinker who has firmly mastered the achievements of modern science, comprehensively healthy and developed generation.

At a meeting with the President of the Republic of Uzbekistan devoted to issues of further developing the education sector, improving the quality of personnel training, expanding the integration of science and production on October 24, 2018, the president emphasized that the practical work carried out in the higher education system was neither qualitatively nor quantitatively nor qualitatively, i.e. very low coverage of quotas for admission to higher education institutions (7-9% for graduates of secondary schools, lyceums, vocational colleges), the prestige of higher education institutions, ensuring the consonance of educational programs with production and, most importantly, the level of professional development of the faculty composition, the scientific potential of the faculty at the international scientific community does not have a worthy position [1]. Of course, without eliminating such problems and shortcomings, it is difficult to positively solve the issue of training competitive personnel with modern knowledge and training in the higher education system.

The country's development prospects, first of all, determine the personnel potential and the degree of its use. In the process of carrying out reforms in our republic, special attention was paid to improving the process of training personnel for a qualitatively new stage. In order to ensure the effectiveness of scientific research in the higher education system, it is necessary to improve the quality level and ensure the effectiveness of the reforms carried out in our country to raise the level of scientific potential and prepare specialists who meet the requirements of world

¹Doctor of Economic Sciences, Rector of Bukhara State University obidjon2006@yahoo.com

²Associate Professor, Department of Economics, Bukhara State University, Doctor of Philosophy in Economic Sciences (PhD), E-mail: otabek_kakhkhorov@mail.ru

educational standards, having studied the experience of developed and developing foreign countries, based on our state educational standards republic, on the basis of scientific research, the further development of cooperation of science, about azovaniya and production.

II. THEORITICAL BACKGROUND

The development of a rating system for evaluating the activities of educational institutions provided for in the National Training Program of the Republic of Uzbekistan is also relevant. It is necessary to evaluate the effectiveness of the management process of higher education institutions on the basis of an analysis of the practical results achieved, i.e. it is necessary to improve them through solving the following problems:

- determination of the property of the interconnectedness between the management process in the institution and the results of practical activities;
- Implementation of the evaluation of the effectiveness of the management process based on the results of activities on the example of departments in the organizational structure of a higher educational institution, while identifying criteria related to the management process;
- the application of multi-stream integrated assessment methods and analysis of the results obtained in assessing management effectiveness based on the results of the departments.

The solution of these issues, for the scientific justification of them, puts forward the following:

- the effectiveness of the management process in higher education institutions is directly reflected in the achieved practical results;
- based on the analysis of the achieved practical results with the right choice of criteria related to the management process, it is possible to evaluate the effectiveness and effectively establish the feedback between the result and the adoption of management decisions;
- when applying the methods of multi-stream and integrated assessment of the results of practical activities of ways to assess the effectiveness of the management process, reliable results of evaluating the effectiveness of the management process are obtained;
- assessment of the effectiveness of the management process based on an analysis of the results of practical activities of departments, faculties positively affects the activation of their activities, the adoption of effective management decisions, and the strengthening of the competitive environment.

III. LITERATURE REVIEW

Analysis of the literature on the topic. From the countries of the Commonwealth of Independent States, the scientific works of such scientists as T.I. Shamov, P.I. Tretyakov, A.V. Tebenkin, A.N. Asaul, M.V. Nikitin, A.N. Boeva are devoted to studies of improving the education system [2].

And also in the studies of scientists of our country, some aspects of the development of the educational services market were studied. In particular, they were studied in the scientific works of K.K Kurolov [3], Sh. E. Kurbonov [4], M.Kh. Saidov [5], T.Z Teshaboeva [6], A.S. Kucharova [7], A.O. Ergashov [8], D.Kh. Nabiyeu [9], Sh.Sh. Zaidova [10], B.N. Navruz-Zoda [11], R.K. Alimova, V.S. .Toroptsova, K.A. Alimova, B.A. Begalov, D. B. Grigorovich, E. A. Seitkhalilov, K. Kh. Abdurakhmonova, G. K. Akhunova and others.

Research methodology. The concept of management efficiency arises as a result of the interaction of the management system and the effectiveness of the management process. Here we pay attention to the general and distinctive aspects of the concepts of the effectiveness of the management system and the effectiveness of the management process.

The effectiveness of the management process, being a particular circumstance of management effectiveness, expresses the result of the influence of the subject on the managed object. It can be estimated from the quantitative and qualitative sides.

The concept of "effectiveness" is the cause of various disputes and discussions in the subjects of management and management. Due to the lack of a general theory of efficiency, all attempts in this direction to date have not led to the expected results. Different fields of activity use their own performance indicators. But there are no such indicators in education at present. When disclosing the concept of effectiveness, the concept of productivity (productivity) of the activity is introduced. According to S. Kurbonov and E. Seytkhalilov, "Productivity (productivity) is a specific activity, showing the relationship between the usefulness of results obtained over time and the costs associated with it. Higher learning outcomes compared to another educational institution do not always indicate that in this educational institution the quality of management is better. For example, if an educational institution has a solid material base, due to additional sources of financing it can pay a higher salary to teachers compared to other educational institutions, then it is possible to provide a higher quality of education compared to ordinary educational institutions that are deprived of all these benefits. But the question is revealed in the extent to which each educational institution uses its opportunities "[4].

IV. MAIN PART

The external effectiveness of the management system provides for the achievement of goals by society, the state and employers. Evaluation of the effectiveness of the management process is the main criterion for decision making. For this reason, much attention is paid to the concept of efficiency in economics and management. To achieve high indicators in the education system as a whole, the methods of observation, conversation, modeling, analysis, synthesis, expert assessment, hierarchical analysis are used.

The use of the recommended multi-stream analysis method in assessing the effectiveness of the management process in educational institutions will enrich the management of higher educational institutions, academic lyceums, and professional colleges with new methods. Based on the hierarchy analysis method, the approach to assessing the management effectiveness of educational institutions is manifested as an important tool in decision-making and leads to an improvement in the management process. This means that it has both theoretical and practical significance.

Let us dwell on the factors affecting the effectiveness of the management process in an educational institution. The effectiveness of the management process depends on many factors. We conditionally divide them into internal and external factors. Naturally, internal factors are associated only with the internal conditions of the educational institution. These include factors such as the qualifications of workers and faculty, material security of the institution, and the culture of the organization. The effectiveness of the management of an educational

institution can be affected by external factors. These factors include the location of the institution, local government policies, social environment, etc.

According to the influence of the institution, positive and negative factors can be divided. If positive factors serve to increase the effectiveness of school management, then negative factors impede positive changes in efficiency.

There are factors that affect the management efficiency of any educational institution in the same way. Among these universal factors are the following:

quality of goals;

- the possibility of real achievement of goals, ie, their compliance with the means of achieving the goal;
- correct assessment of the current situation;
- motivation of the head and employees of the institution on the way to the goals;
- potential and personal qualities of the head of the educational institution;
- quantity and quality of resources allocated to achieve the set goals;
- participation of state and public bodies, as well as collegial management bodies in making managerial decisions.

And also, the correct establishment of the management process in the management system of educational institutions, the specific identification of the concepts of its effectiveness, the disclosure of the essence and content of them, the development in educational institutions based on the method of hierarchical analysis of the rating model of departments, its validity on methods for assessing the effectiveness of the management process are factors that influence to achieve high results in assessing the management effectiveness of an educational institution.

Based on the foregoing, management effectiveness is understood as the achievement of performance, but the level of productivity (productivity) is difficult to determine only on the basis of productivity. Because productivity (productivity) is understood as the general movement of managerial activity, as well as the achievement of goals as a result of certain actions. Therefore, in determining the effectiveness of management, attention must be paid to the following: the purpose of management; management capacity; specifics of managerial work; management costs, management tasks, the technology of their organization and the amount of work performed, etc.

Currently, when evaluating the effectiveness of various management units in the internal environment of an educational institution due to insufficiency, there is a need for simple, convenient, flexible methods. The effective application in the management process of educational institutions aimed at identifying problems of various nature, their analysis and assessment, also ensuring the adoption of the most favorable solution of the multi-stream complex analysis and assessment methods, is distinguished by the breadth of its capabilities and prospects. A comprehensive assessment of the effectiveness of the management process of an educational institution is of interest to many market entities and their relevance justifies the above conclusions. The organization of the management process in higher education institutions, the definition of methods for assessing their effectiveness, the study and improvement of evaluating the effectiveness of the management process based on the results of practical activities is important.

It should also be emphasized that it cannot be said that the results achieved currently fully comply with the requirements of the strategy for modernizing the economy and creating a competitive national economy. In other

words, it cannot be said that the system of economic education that has been in effect today, under conditions of rapidly developing economic processes, has sufficient qualitative parameters to achieve the fundamental strategic goals of state and social progress and to fulfill the tasks arising from them.

This situation indicates that it is necessary to deeply study the problems of ensuring the effectiveness of the system of economic education, and also, it is necessary to implement inextricably linked organizational, political, legal and social reforms aimed at modernizing and improving the efficiency of the system of economic education.

V. ANALYSIS AND RESULTS

It is advisable to approach the question of effective management of the training of economic personnel in the education system of our country from the following four sides:

- social efficiency of economic education;
 - economic efficiency of the system of economic education;
 - the effectiveness of political governance (improving the governance mechanism and expanding the competitive environment in the field);
 - synergistic effectiveness of economic education.
- Based on the above approaches, it is possible to form a system of indicators that express the effective management of the training of economic personnel in the education system. In this regard, in our opinion, the following are indicators that allow a comprehensive assessment of the results of the institution:

- **K1** - cultural and educational activities;
- **K2** - scientific potential;
- **K3** - educational –methodological activity;
- **K4** - scientific research;
- **K5** - economic activity;
- **K6** - stimulation.

According to these indicators, you can evaluate the activities of the institution. Of course, the above indicators, based on the essence of the activity, can be divided into sub-indicators. And this, in turn, will allow a deeper study of the activities of the educational institution and achieve the accuracy of the results (Fig. 1).

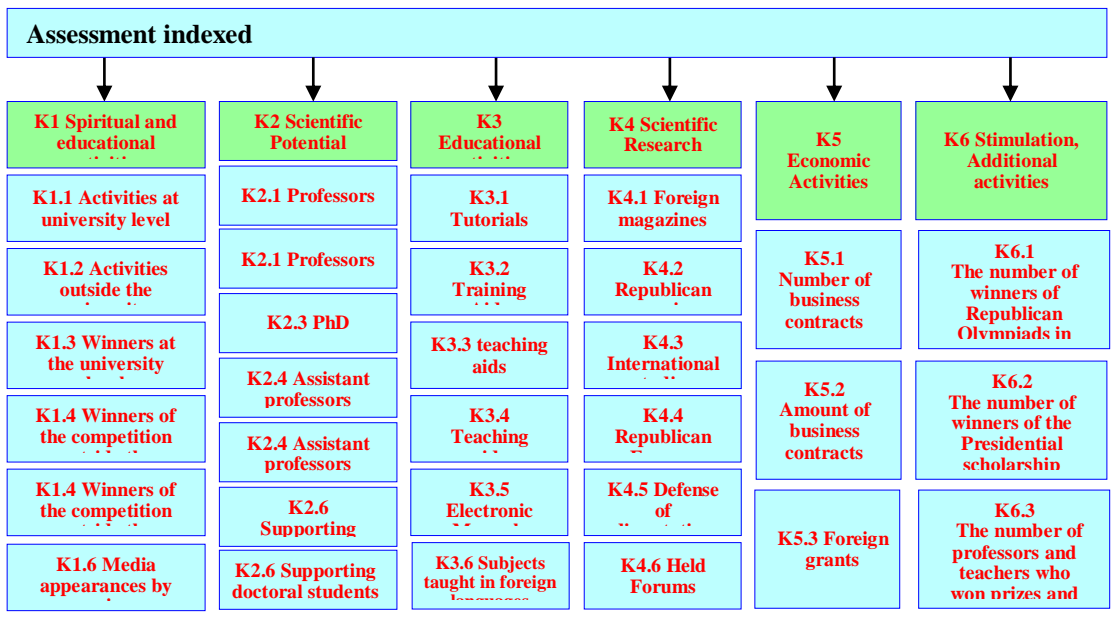


Figure 1: Performance evaluation of the effectiveness of the institution

In the theory of decision-making when solving such issues as the choice of a specific solution to the options for the importance and alternativeness of the indicators shown in Figure No. 1, there are ELECTRE, TOPSIS, SMART, AHP methods and a number of others that are currently widely used in practice. According to the goal, the selected criteria are primarily determined by the evaluation criterion, it is required to form a group of experts on this activity. To achieve the goal set in the study, we depicted in the form of the following matrix called decision matrix matrices a practical task whose solution must be determined using 12 experts on a 100-point scale carried out within the framework of certain indicators at the Bukhara State University and the Bukhara Engineering and Technology Institute:

	C_1	C_2	C_3	...	C_{12}
	ω_1^k	ω_2^k	ω_{13}^k	...	ω_{12}^k
K_1	x_{11}^k	x_{12}^k	x_{13}^k	...	x_{112}^k
K_2	x_{21}^k	x_{22}^k	x_{23}^k	...	x_{212}^k
K_3	x_{31}^k	x_{33}^k	x_{33}^k	...	x_{312}^k
K_4	x_{41}^k	x_{42}^k	x_{43}^k	...	x_{412}^k
K_5	x_{51}^k	x_{52}^k	x_{53}^k	...	x_{512}^k
K_6	x_{61}^k	x_{62}^k	x_{63}^k	...	x_{612}^k

here

- $K_1, K_2, K_3, K_4, K_5, K_6$ – alternatives;
- $C_1, C_2, C_3, \dots, C_{12}$ – criteria for evaluating alternatives;
- x_{ij}^k – rating (value) k an expert ($i=1, 2, \dots, 6, j=1, 2, \dots, 12$) by criterion C_j alternatives K_i ;
- ω_j^k – certain k expert degree of importance of the criterion C_j .

Having come up with peculiar methods to the determination of an alternative solution by the decision matrix in the above methods, we consider that the simplest of them is the Simple Multi Attribute Rating Technique (SMART). This method was first used by the American scientist W.Edwards in multi-decision making. Determining an alternative solution using the SMART method is carried out in a number of steps. Including:

- Definition of the problem or the task considered within the framework of the topic.
- Determining the degree of superiority of decision makers, i.e. expert groups $(k_1, k_2, \dots, k_p, \sum_{j=1}^p k_j = 1)$.
- Determination of degrees of alternative $(K_1, K_2, K_3, K_4, K_5, K_6)$.
- Defining criteria for assessing degrees of alternativeness $(C_1, C_2, C_3, \dots, C_{12})$;
- Drawing up a decision matrix $(x_{ij}^k, i=1, 2, \dots, n, j=1, 2, \dots, m, k=1, 2, \dots, p)$;
- Definition of criteria of importance for each k expert $(\omega_j^k, \sum_{j=1}^m \omega_j^k = 1)$.
- VII Rationing the decision matrix (), i.e., casting values from 0 to 1;
- The assessment of the degrees of alternative for each k expert according to all criteria using the matrix of normalized solutions is determined using the following additive formula:

$$W^k(K_i) = \sum_{j=1}^m \omega_j^k x_{ij}^k \tag{1}$$

- Determining the ranking of degrees of alternativeness based on the identified overall assessment for each expert.
- Bringing data by the members of the expert group of the assessment of importance and alternativeness into one assessment according to the following and using this to determine the generalized degrees of effectiveness from the model below:

$$W^k(K_i) = \sum_{s=1}^p k_s W^k(K_i) \tag{2}$$

Using the above steps using the SMART method, 12 experts examined the issue of determining the effectiveness of activities for each year through indicators obtained according to 6 criteria (K1, K2, ..., K6) for a total of 37 sub-criteria (K1.1, K1.2, ..., K6.3) for 2012-2013, 2013-2014, 2014-2015, 2015-2016 Using the above steps using the SMART method, 12 experts examined the issue of determining the effectiveness of activities for each year through indicators obtained according to 6 criteria (K1, K2, ..., K6) for a total of 37 sub-criteria

$$a_i = \frac{ball_i}{\sum_{j=1}^{12} ball_j} \tag{3}$$

Table 1: Priority levels of members of the expert group

The experts	1-	2-	3-	4-	5-	6-	7-	8-	9-	10-	11-	12-
Maximum	$ball_1$	$ball_2$	$ball_3$	$ball_4$	$ball_5$	$ball_6$	$ball_7$	$ball_8$	$ball_9$	$ball_{10}$	$ball_{11}$	$ball_{12}$
100 points	0,09 5	0,09 5	0,08 5	0,085	0,085	0,085	0,08 5	0,08 5	0,07 5	0,07 5	0,07 5	0,07 5

According to the calculation results of the indicators in table No. 1, it was found that 1 and 2 experts have the highest degree of priority (0.95); 3-8 experts - medium (0.85) and 9-12 experts - lower priority than others.

$$K_1 \text{ ни топиш учун } \omega_{1j}^k = \omega_1^k \frac{ball_{1j}^k}{\sum_{i=1}^6 ball_{1i}^k}, \quad j = 1,2,3,4,5,6 \quad (4)$$

$$K_2 \text{ ни топиш учун } \omega_{2j}^k = \omega_2^k \frac{ball_{2j}^k}{\sum_{i=1}^8 ball_{2i}^k}, \quad j = 1,2,3,4,5,6,7,8 \quad (5)$$

$$K_3 \text{ ни топиш учун } \omega_{3j}^k = \omega_3^k \frac{ball_{3j}^k}{\sum_{i=1}^6 ball_{3i}^k}, \quad j = 1,2,3,4,5,6 \quad (6)$$

$$K_4 \text{ ни топиш учун } \omega_{4j}^k = \omega_4^k \frac{ball_{4j}^k}{\sum_{i=1}^9 ball_{4i}^k}, \quad j = 1,2,3,4,5,6,7,8 \quad (7)$$

$$K_5 \text{ ни топиш учун } \omega_{5j}^k = \omega_5^k \frac{ball_{5j}^k}{\sum_{i=1}^6 ball_{5i}^k}, \quad j = 1,2,3,4,5,6 \quad (8)$$

$$K_6 \text{ ни топиш учун } \omega_{6j}^k = \omega_6^k \frac{ball_{6j}^k}{\sum_{i=1}^3 ball_{6i}^k}, \quad j = 1,2,3 \quad (9)$$

In the study, each expert through the above formulas is distributed according to the 100 percent degree of importance among 6 criteria, the degrees of importance of the relevant sub-indicators are determined, the results of which are reflected.

Using the indicators of the table, when normalizing the results of the departments for each of the 37 sub-indicators, the following formula was used:

$$x_{ij}^* = \frac{x_{ij}}{\max(x_{1j}, x_{2j}, x_{3j})}, \quad i = 1, 2, 3; \quad j = 1, 2, 3, \dots, 37 \quad (10)$$

As a result, a table of normalized indicators (decision matrix) was compiled for the indicators of departments in the context of years. Using the matrix of normalized solutions, using formula No. 1, we determine the assessment of the degrees of alternativeness for each k expert according to all criteria and the results of which are reflected in table No.

Table 2: A summary table of the degree of alternativeness for each expert indicator of the areas of economic education operating in the university of Bukhara region

Names of Departments	2012-2013 educational year	2013-2014 educational year	2014-2015 educational year	2015-2016 educational year	2016-2017 educational year	The difference between the 2012-2013 and the 2016-2017 academic years (-, +)
Economy	0,239	0,238	0,238	0,230	0,301	0,062
Tourism	0,274	0,300	0,331	0,295	0,324	0,05
Management	0,430	0,392	0,330	0,472	0,375	-0,055

Based on the data in table No. 2, it can be seen that for the period from the academic year 2012-2013 to the academic year 2016-2017 in the higher education institutions operating in the Bukhara Oblast areas of economic education, the highest degree of alternativeness increased in a positive direction, i.e. by 0.062 units. But, if the direction of management for the selected period decreased by 0.055 units, then in the current academic year it achieved higher indicators compared to the other two directions. It is advisable to look at such a character of

indicators, mainly, as the lack of stimulation of the directions of economics and tourism for the selected academic years. In the study, taking into account the priority levels of all members of the expert group, using the formula No. 2, the generalized efficiency of the departments in the context of years is determined. If the information obtained as a result of the study is entered on the pivot table for previous years, it will look as follows.

Table 3:The effectiveness of management training of economic personnel in higher education institutions of the Bukhara region

Names of departments	2012-2013 educational year	2013-2014 educational year	2014-2015 educational year	2015-2016 educational year	2016-2017 educational year	The difference between 2012-2013 and 2016-2017 academic years (+, -)
Economy	0,25	0,25	0,24	0,23	0,30	0.05
Tourism	0,27	0,29	0,33	0,30	0,32	0.05
Management	0,44	0,40	0,34	0,45	0,38	-0.06

As can be seen from table No. 3, management activities in the preparation of economic personnel in the direction of the economy of the education system for the period from the academic year 2012-2013 to the academic year 2016-2017 increased the efficiency of the departments of economics and tourism by 0.05 percent. But, for the base years, the managerial activity of the department of management decreased by 0.06 percent, respectively.

The consistent implementation of the ongoing reforms is giving positive results in this area (Fig. No. 2)

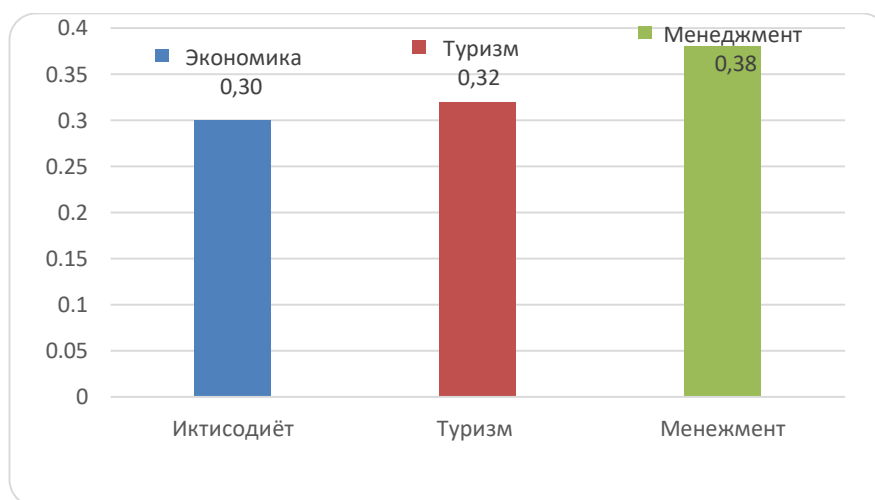


Figure 2. Priority of the economics training departments at universities of Bukhara region

As can be seen from the data in Figure No. 2, in the 2016-2017 academic year, the priority of the Department of Management of the Bukhara Engineering and Technology Institute was 0.38 units, and the Department of

Economics of the Bukhara State University increased by 0.30 units and the Department of Tourism by 0.32 units . It should be especially noted that the presented SMART method allows determining, under the influence of internal factors, the effectiveness of management in the education system identified in the field of training of economic personnel.

As noted above, there are different views and different methods for assessing the effectiveness of the management of educational institutions. Those. the effectiveness of the management of educational institutions can be assessed through various indicators. On the one hand, the assessment of the effectiveness of the management of educational institutions is carried out only on indicators related to management, on the other hand, the effectiveness of management is associated with the dynamics of changes in pedagogical processes in the educational institution, the effectiveness of their resources, and the level of impact of the reforms on each person.

In this direction, in our opinion, the definition of increasing the share in the gross territorial product of the region and the employment of graduates of professional colleges in Bukhara in the areas of education, economics and finance will make it possible to develop the education system, evaluate the effectiveness of management and its further prestige. For this, first of all, it is necessary to carry out correlation and regression analyzes for in-depth study of economic analysis based on data from the statistics department of the Bukhara region. In this regard, making designations of gross territorial production in relation to per capita of the active population in the economy – Y, number of employees of all graduates – X1 and the number of applicants to study at a higher educational institution – X2, the correlation between the selected factors is determined using the package "Data Analysis" program EXCEL (table No. 4).

Table 4: Correlation of selected performance indicators and influencing factors

	<i>WTP per capita of the active population in the economy - Y, thousand soums</i>	<i>Employed -X₁, thousand people</i>	<i>Admitted to study at a higher educational institution -X₂, thousand people</i>
WTP per capita of the active population in the economy -Y, thousand soums	1		
Employed -X ₁ ,	0,460489061	1	
Admission to study at a higher educational institution -X ₂ ,	0,426946103	0,91920009	1

Based on the data in the table, it was established that the gross territorial production per capita of the active population in the economy and those employed and enrolled in higher education are directly and directly related to the average density ($0,4 \div 0,6$), the selected two factors are closely related to each other (0.91920009).

Due to the fact that this result between those who are employed and enrolled in higher education is $|r_{x1,x2}| > 0,8$, which means the presence of multicollenarity, it is advisable to draw up a regressive equation with one of the factors.

First of all, to determine the time-related regressive equation of each factor, we use the method of analytical smoothing, which is one of the most important methods for determining the trends in a series of dynamics. The root content of this method is that the main development trend is considered as a function of time (\bar{Y}_t).

To do this, we use the linear equation related to the nature of the change ($\bar{y}_t = a_0 + a_1t$) and a second-order parabolic equation ($\bar{y}_t = a_0 + a_1t + a_2t^2$), here a_0, a_1, a_2 – parameter; t – serial number of years.

Based on the above considerations, taking into account the unevenness of statistical data on the employment of graduates of professional colleges in the economic field in the Bukhara region, using the method of smoothing time series to determine the general trend in events and processes, it is first necessary to calculate moving (sliding) according to empirical (primary) data medium.

Based on the data on the employment of graduates of professional colleges in the economic field in the Bukhara region, we first calculate the parameters of the linear equation $\bar{X}_1 = a_0 + a_1t$:

$$a_0 = \frac{\sum t^2 \sum X_1 - \sum t \sum X_1 t}{n \sum t^2 - \sum t \sum t} = \frac{5703 * 385 - 55 * 95817}{10 * 385 - 55 * 55} = 940,1$$

$$a_1 = \frac{n \sum X_1 t - \sum t \sum X_1}{n \sum t^2 - \sum t \sum t} = \frac{10 * 95817 - 55 * 15703}{10 * 385 - 55 * 55} = 114,6$$

In this case, the linear equation will have the following form:

$$\bar{X}_1 = 940,1 + 114,6 * t \quad (1)$$

According to the calculated regression equation, the aligned dynamic series of the number of employed graduates in the economic field makes it possible to establish an increase in the number of employees by 114.6 units per year.

Now, to obtain accuracy in achieving the goal set under the topic, based on the above data, we calculate the parameters of the parabolic equation expressing the dynamic change of graduates of professional colleges in the economic field:

$$a_0 = \frac{\sum t^2 \sum X_1 - \sum t \sum X_1 t}{n \sum t^2 - \sum t \sum t} = \frac{25333 * 15703 - 683423 * 385}{10 * 25333 - 385 * 385} = 1281,3$$

$$a_1 = \frac{\sum t X_1}{n \sum t^2} = \frac{95817}{10 * 385} = 24,9$$

$$a_2 = \frac{n \sum t^2 X_1 - \sum X_1 \sum t^2}{n \sum t^2 - \sum t \sum t} = \frac{10 * 683423 - 15703 * 385}{10 * 25333 - 385 * 385} = 7,504$$

Thus, the parabolic equation will have the following form:

$$\bar{X}_1 = 1281,3 + 24,9 * t + 7,507 * t^2 \quad (2)$$

Based on these specific regression equations, using the data from table No. ____, we calculate the time-related changes and the actual difference. The results are shown in the following table No. 5.

Table 5: The table of calculations on linear, quadratic equations of dynamics of graduates of professional colleges of economic direction in the Bukhara region

Year	Employed - X_1 ,	Figure s of the years, t	Three -year average	According to the linear equation	$(\bar{X}_t - X_t)^2$	According to the quadratic equation	$(\bar{X}_t - X_t)^2$
A	1	2	3	4	5	6	7
2007/2008	412	1		1054,7	413063,3	1313,7	813062,9
2008/2009	676	2	941	1169,3	243344,9	1361,1	469362,0
2009/2010	1734	3	1427	1283,9	202590,0	1423,5	96410,3
2010/2011	1872	4	1898	1398,5	224202,3	1500,9	137715,2
2011/2012	2089	5	1964	1513,1	331660,8	1593,3	245718,5
2012/2013	1931	6	1973	1627,7	91990,9	1700,7	53038,1
2013/2014	1898	7	1824	1742,3	24242,5	1823,1	5610,0
2014/2015	1643	8	1705	1856,9	45753,2	1960,5	100806,3
2015/2016	1574	9	1697	1971,5	158006,3	2112,9	290413,2
2016/2017	1874	10		2086,1	45156,3	2280,3	165404,9
total	15703	55		15704	1780010,3	17070	2377541,3

As can be seen from the table, the difference calculated on the basis of a linear equation of theoretical values from the actual values, due to the fact that the sum of their squares is less than the sum of the differences calculated on a second-order parabolic base upon reaching the goal set within the framework of the topic, it is established that the linear equation is significant than parabolic equation for a better image of the dynamics of change.

According to the identified results, $R^2=0,872$ the correlation between gross territorial production per capita of the active population in the economy and the variation in the number of employed people is 87,2%.

And the Fisher criterion - F for the situation $b = 0.05$ consists of $k_1 = n - 1 = 9$ and $k_2 = n - m - 1 = 8$, a regressive equation determined from $F_{\text{account}}=5,1529 \geq F_{\text{table}}=3,39$.

Based on student criterion, $t_y = 1,874 t_{x_1} = 2,48$. According to the student distribution table, with the amount of free indicator $df = 9$ $\text{в} \alpha = 0,05$ will be equal $t_{\text{ж}ад} = 1,833$, due to the fact that this in turn satisfies equality $t_{\text{ж}ақ} > t_{\text{ж}ад}$ the parameters of the below-defined regression equation with a probability of 0.95 are recognized as reliable in the regression equation:

$$Y = 3593,25 + 2,32 * X_1 \quad (3)$$

here,

Y- gross territorial production per capita of the active population in the economy;

X_1 - number of employed graduates.

If we pay attention to the equation, it is established that an increase in each employed graduate by one unit allows to increase the gross territorial production per capita of the active population in the economy by 2.32 units.

In the regional department of education through the introduction of research results into practice, it has been established that the employment of 1 graduate of a professional college will make it possible to increase the volume of gross territorial production $2,32 \cdot 10449 = 24241,68$ thousand soums. Now we make up the 4-equation. For the time-related regressive equation of those who went to study at a higher education institution $R^2 = 0.96773$, the dependence on the time variation of the number of people who went to study at a higher educational institution is 96.8 percent.

And the Fisher criterion - F for the situation $b = 0.05$ consists of $k_1 = 9$ and $k_2 = 8$, a regressive equation determined from $F_{\text{account}} = 5,736 \geq F_{\text{table}} = 3,39$.

Based on student criterion, $t_{x_1} = 2,778$, $t_{x_2} = 2,395$. According to the student distribution table, with the amount of free indicator $df = 9$ and $\alpha = 0,05$ will be equal $t_{\text{жад}} = 1,833$, due to the fact that this in turn satisfies equality $t_{\text{жақ}} > t_{\text{жад}}$ the parameters of the below-defined regression equation with a probability of 0.95 are recognized as reliable in the regression equation

$$X_2 = 107,13 + 9,3 * t \quad (4)$$

Putting the time-related values of both equations in the 1-equation, we carry out a multi-stream forecast, which indicates that by the 2021-2022 academic year, compared to 2017-2018, an increase in the WTP per capita of the active population in the economy is expected to be 11.9 percent, the number of employed - by 18.9 percent and the number of applicants to study at a higher educational institution - by 18.2 percent.

VI. CONCLUSION AND SUGGESTIONS.

In conclusion, we can say the following: assessing the impact on the development of regional economies of graduates of the economic areas of the education system, determining the relationship between the effectiveness of the management process of educational institutions and the results of practical activities, improving management processes is important in making optimal decisions on training economic personnel in the education system and management by her.

The effectiveness of the management process is one of the main factors ensuring the success of an educational institution in the educational services market. It is an effective management process that makes it possible to fully utilize all the resources of an institution and organization. Given these properties, the management process in the education system and its theoretical foundations are determined, as well as the concept of its effectiveness, theoretical and practical aspects of assessment and assessment indicators. And also, suggestions have been developed to improve the method of integrated assessment of the management process efficiency of the departments of economic direction in the higher education system, which made it possible to determine factors

affecting the management process, show the highest level of benefits, evaluate management effectiveness by teaching, research, and spiritual and educational activities of economic departments.

REFERENCE

1. The materials of the meeting with the President of the Republic of Uzbekistan, devoted to issues of further development of higher education, improving the quality of training, expanding the integration of science and industry. "A fast-growing economy needs modern cadres" ("Zhadal rivozhlanayotgan and izisodiet uchun reaper kadrlar kerak") dated October 24, 2018. The official website of the President of the Republic of Uzbekistan. <http://www.president.uz/uz/lists/view/2107>.
2. Kakhkhorov O.S. Improving the management mechanism for the training of economic personnel in the education system (for example, Bukhara region). Abstract of dissertation. Doctor of Philosophy in Economic Sciences (PhD). Tashkent, 2017. Page 6-7.
3. Kurolov K. Patterns of improving the system of economic education in a market economy (Bozor Munosabatlari Sharoitida and Tisodiy Talim tizimining Takomillashuvi Konuniyatlari). Abstract of a doctoral dissertation. Tashkent, 2016. p. 8.
4. Kurbonov S., Seitkhalilov E. Management of the quality of education (Talim sifatni boshkarish). - T.: Turon-Ikbol, 2006.P.- 592.
5. Saidov M.Kh. Management and economics of higher education (Oliy talim management and itisodieti). - T.: Molia, 2002, pp. 169.
6. Teshaboev T.Z. Ways to improve innovation in higher education institutions (Oliy Kuv yurtlarida innovation faoliyatni takomillashtirish yollari). - T.: Fan va technology, 2007. P.129.;
7. Kucharov A.S. Improving organizational and economic factors of management in training specialists with higher education for the business sector (Tadbirkorlik soxasi uchun oliy malamumli mutahassislarni tayarlashda bosharishning tashkiliy-itisodiy omillarini takomillashtirish), Doctor of Economics ... dissertation abstract. - T.: 2006;
8. Ergashev A.O. Improving the fundamentals of the economic management of the education system (by the example of secondary specialized, vocational education) (Talim tizimining and ktisodiy boshqaruv asoslarini takomillashtirish (yrta makhsus, kasb-xunar talimi tizimi misolida). Ph.D. dissertation ... - T.: TDIU, 2006.
9. Nabiev D.Kh. Improving the marketing management of educational services in the context of economic modernization. Abstract. ... doc. economy sciences. - T.: TDIU, 2009.
10. Zaidova Sh.Sh. Improving the effectiveness of the mechanism of action of the market for higher education services (based on materials from Uzbekistan) (Oliy talim hizmatlari bozorining amal qilish mechami samaradorligini oshirish (sotm Uzbekistan materiallari asosida). Ph.D. dissertation ... - T.: TMI, 2012.;
11. Navruz-Zoda B.N. Quality Assurance in the Higher Education System in Uzbekistan (beqi Uzbekistan, Olim Talim tizimida sifat taminoti). - T: Xarizma design, 2008. -- 245 page.