

# REPUBLIC OF AZERBAIJAN

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## ABSTRACT

of the thesis for the award of the degree of Doctor of Philosophy

### **QUALITY ASSURANCE PROBLEMS OF PERSONNEL TRAINING IN ACCORDANCE WITH THE NEEDS OF THE LABOR MARKET IN AZERBAIJAN HIGHER EDUCATION INSTITUTIONS**

Speciality: 5311.01 – “Organization and management  
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## **GENERAL CHARACTERISTICS OF THE WORK**

**Relevance and development of the topic.** Improving the quality of human capital and adapting the personnel training system to the requirements of the labor market, as well as ensuring the compatibility between supply and demand are the main goals of the state's employment policy. Thus, in "Azerbaijan 2030: National Priorities for social and economic development", the formation of competitive human capital and the space of modern innovations was mentioned as one of the main strategic goals<sup>1</sup>. Also, in the "Socio-economic Development Strategy of the Republic of Azerbaijan for 2022-2026" it is emphasized that the application of digital technologies and economic development increase the demand for human resources with high knowledge and skills<sup>2</sup>.

Meeting the demands of the labor market increases the quality of production and service, which positively affects the economic well-being of the individual and the country. Therefore, the importance of higher education institutions (hereinafter - HEI) in increasing the economic well-being of the country is undeniable. Because education has two important dimensions, consumption and investment: an individual's educational expenses have both investment and consumption characteristics.

In 2017-2022, the specific weight of young workers in the employed population has increased. In 2022, only 22.2% of the employed youth in the age range of 14-29 were those with higher education. At the same time, 12% of the total unemployed population in 2022 were people with higher education. Also, 12% of the unemployed population in the age range of 20-29 years, 15% of the unemployed in the age range of 30-39 years are considered to have higher education. Finally, based on the statistical results, almost 13% of unemployed persons aged 20-39 have higher education. At the same time, 14% of unemployed persons over 25 years of age are persons

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<sup>1</sup> "Azerbaijan 2030: National Priorities for socio-economic development" approved by the Decree of the President of the Republic of Azerbaijan dated February 2, 2021.

<sup>2</sup> "Strategy of socio-economic development of the Republic of Azerbaijan in 2022-2026", approved by the Decree of the President of the Republic of Azerbaijan dated July 22, 2022.

with higher education, and this indicator is higher than the average indicator determined by the OSCE worldwide (4%)<sup>3</sup>.

Adaptation of personnel training in HEIs to the requirements of the labor market is important for developing countries. Investing in quality education in developed countries eliminates imbalances in income distribution and increases the efficiency of individuals' labor activities. That is why the investment in the quality of education is called "human investment" and it has a positive impact on economic and social development as well as changing the behavior of individuals in society.

Quality assurance of personnel training in Azerbaijan is not equally important in all HEIs. The main drawback is the unsatisfactory coordination and control of the quality assurance system. The conducted studies show that the quality of the process of training young people with the competencies and skills required in the labor market in HEIs should be improved, because most of the students do not feel confident in terms of skills and competencies to start working after receiving a bachelor's degree<sup>4</sup>. It has been determined that by using many different tools, HEIs can achieve certain improvements in personnel training according to the requirements of the labor market<sup>5</sup>.

The solutions to the scientific, theoretical and practical aspects of labor market, employment and unemployment problems in the modern era are among our prominent economists T.A. Guliyev, Sh.M. Muradov, R.K. Isgandarov, Z.A. Samadzade, A.K. Alasgarov, S.S. Mohbaliyev A.G. It was studied by Alirzayev and others. T.A. Guliyev and R. Khumbatov have given a lot of space in their works to the issues of improving management mechanisms in production and service

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3 State Statistical Committee of the Republic of Azerbaijan // "Labor market" statistical collection (electronic resource). - Baku: - 2022.

<sup>4</sup> Mammadova. L., Valiyev. A. Azerbaijan and European Higher Education Area: Students' Involvement in Bologna Reforms / Lala Mammadova and Anar Valiyev // Research in Educational Administration & Leadership / Volume: 5, Issue: 4. - Baku, - 2020, - p. 1084-1121.

<sup>5</sup> İsanlı. H. Reform of Education System of Azerbaijan for Sustainable Future // Higher Education in Azerbaijan UNESCO Conference, -Paris, - 2005, - p. 25-45.

enterprises. Also, the classification of world countries according to economic models and the regulation of employment were investigated by N.M. Imanov, and the multiplicative effects of opening jobs based on inter-sectoral labor balance were investigated by V. M. Valiyev. Also, the role of human capital in the innovative development of the economy, the relationship between intellectual labor and the economy, the impact of the quality of education on labor productivity, poverty, trade, technology, health, income distribution and family structure A. Tamilla, R. Azizova, M. Mammadova, Z. Jabrayilova, F. Rahmanov, E. Suleymanov, A. Muradov, J. Mahmudov, N. Isayev, E. Huseinova, G. Gurbanova, N. Gasimov, I. Nabiyeva, N. Mammadov, M. Nazarov were investigated. The short-term relationship between labor productivity and education costs by G. Guliyeva, E. Alakbarov, S. Jumazade, the effects of student success indicators on the position and income of students in the labor market, by A. Aliyeva, A. Abdayev, T. Gadirov, G. Javadzade, university and industry ways of forming and improving mutual relations between enterprises by Ch. Khalilova, N. Gasimov, R. Mammadova, G. Eyvazli, and the relationship between the labor market and personnel training by A. Hajiyev, A. Aliyeva, A. Abdayev, T. Gadirov, G. It was studied by Javadzadeh, H. Emilia, A. Nasibova, A. Muradov, D. Ahmadov, G. Gurbanova, N. Mammadov, N. Gasimov, I. Nabiyeva and R. Aliyeva.

Fundamental changes are being made in the country's higher education system in order to increase the efficiency of quality assurance activities of personnel training in accordance with the requirements of the labor market, as well as the process of establishing cooperative relations between HEIs and subjects of the country's economy is being strengthened. Therefore, in the conditions of the strengthening of global competition accompanied by the technological development caused by digitization, the solution to the modern labor market, employment and unemployment problems depends on ensuring quality at all stages of personnel training of HEI. Taking into account these needs, the problems of quality assurance of personnel training in accordance with the requirements of the labor market of HEIs were comprehensively and systematically investigated for the first time.

**The object and subject of the research.** The object of the study is non-special purpose private and state HEIs of Azerbaijan. The subject of the study is the regularities of formation and development of quality management related to personnel training in HEIs according to the requirements of the labor market.

**Research goals and objectives.** The main purpose of the study is to determine the internal and external quality assurance problems of personnel training of HEIs of Azerbaijan according to the requirements of the labor market, to determine the main directions of action and the tools that can be used for personnel training according to the changing requirements of the labor market, and to make efficient proposals.

In order to achieve the goal stated in the research work, the following tasks are planned:

1. Investigate the importance of quality assurance of personnel training in HEIs in increasing labor productivity;

2. To examine the methodological foundations of 9 quality management models accepted in the international arena, to determine their common directions of action and to analyze the appropriateness of their application for HEIs in Azerbaijan;

3. To examine the state of reflection of the provisions on quality assurance of personnel training in HEIs, as well as the standards presented on internal quality assurance in ESG, in the relevant laws and other normative legal acts of the Republic of Azerbaijan;

4. To analyze the current state of internal and external quality assurance in HEIs of Azerbaijan and to make effective suggestions for eliminating the identified problems;

5. To analyze the relationship between HEIs' income from education fees and its quality assessment results;

6. To analyze the perception of the quality assurance criteria of staff training of HEIs;

7. To provide efficient proposals on the directions and tools of quality assurance of personnel training in accordance with the requirements of the labor market.

**Research method.** A mixed method (qualitative and quantitative) was used as a research method. Methods such as comparative analysis of legislation and normative legal acts, logical summarization, classified analysis of survey results, mutual comparisons based on established criteria, analysis of the results of evaluation reports prepared by relevant institutions, and summarization were used as quality methods. As a quantitative method, the survey conducted among the academic and administrative staff was analyzed using SPSS software, using Man Whitney U and Kruskal Wallis tests, and the hypotheses put forward by the researcher were checked. The relationship between the accreditation evaluation results of HEIs and their income during the accreditation period was analyzed by Pearson and Spearman correlation test.

**The main provisions defended:**

1. Quality assurance of personnel training plays an important role in increasing labor productivity. It directly affects labor productivity by increasing the knowledge and skills of the workforce and increasing their professional effectiveness.
2. In the quality management models of enterprises adopted in the international arena, most of the areas of activity within the framework of 9 models are similar, and there are no restrictive circumstances from the legislative point of view for the implementation of the tools intended for the implementation of the models by Azerbaijani HEIs;
3. Despite the existence of an appropriate regulatory legal framework regulating the external quality assurance of personnel training of HEIs in Azerbaijan, issues related to internal quality assurance exist fragmentarily in the relevant regulatory legal acts. There is also a need to improve the regulatory legal framework to ensure the full implementation of the requirements of the internal quality assurance standards specified in the ESG by HEIs;
4. As a result of the analysis of the results of various surveys conducted on the internal quality assurance of HEIs and the assessment of external quality assurance, it was determined that the main shortcomings stem from the lack of an effective internal quality assurance system and strategic management;

5. There is a very weak positive correlation between the financial income of HEIs and the results of the accreditation assessment for the year in which the accreditation assessment was carried out, which indicates that financial income is not reflected in the quality indicators;
6. Significant differences are observed among the indicators noted by the academic and administrative staff working at HEIs regarding the criteria for staff training in accordance with the requirements of the labor market in a number of categories they are included in. Thus, as a result of the perception analysis, it was determined that the quality criteria for teaching were affected by the respondent's gender, pedagogical experience, position, and academic degree. The quality criteria for scientific research were determined to be affected by the respondent's work experience, pedagogical experience, and position. In addition, it was found that the quality criteria for the student support system were affected by work experience, pedagogical experience, academic degree, and position;
7. HEIs should operate in various directions using various tools determined in the direction of quality assurance of staff training in accordance with the requirements of the labor market (extensive information on the tools and directions is provided at the end).

#### **Scientific novelty of the study:**

1. The state of reflection of the standards for internal quality assurance of HEI personnel training in the relevant legislation and other regulatory legal acts of Azerbaijan was comparatively analyzed and the possibility of their implementation by HEIs was investigated;
2. A mutual comparative analysis of 9 models and 5 quality management tools applied in the international arena was conducted, common directions and indicators for relevant criteria and activities were identified, as well as the possibility of applying relevant quality management models and tools by higher education institutions of Azerbaijan was analyzed;



3. The results of the survey conducted by the author among the persons responsible for internal quality assurance working in HEIs, as well as the results of the survey conducted by TKTA among those trained, were comparatively analyzed and problems related to internal quality assurance were identified as a result of the analysis;
4. The results of the accreditation assessment of 42 HEIs, which underwent accreditation assessment in 8 years (2014-2022), were analyzed based on the accreditation criteria. At the same time, the recommendations given to the institutions by the Accreditation Commission (based on the detected deficiencies) were analyzed comparatively, and the most frequently detected deficiencies and directions of the recommendations were determined;
5. The relationship between the income generated from tuition fees of HEIs and their accreditation assessment results was analyzed, and the impact of financial income generated from tuition fees on quality indicators was studied;
6. The impact of the gender, scientific degree, pedagogical experience, work experience and ownership form of the enterprise they work for on the perception of the quality criteria of personnel training in accordance with the requirements of the labor market was analyzed, and a regression model was built;
7. Based on the results of a survey conducted among the academic and administrative staff, the level of reflection of the quality indicators emphasized by them in the institutional accreditation criteria was determined.

**Theoretical and practical significance of research.** The theoretical issues obtained as a result of the research can play a key role in conducting further research in the relevant direction. The streamlining proposals given on the basis of the obtained results, as well as the determined quality assurance directions and tools can be used by all HEIs for the quality assurance of personnel training according to the requirements of the labor market, regardless of their subordination, organizational-legal form, ownership.

**Research approval and implementation.** The results of the dissertation work have been published in 6 local and 3 foreign scientific journals, as well as 4 conference proceedings, 1 of which was published abroad.

**The name of the organization where the research work was performed.** The dissertation work was performed at the Azerbaijan University of Technology, where the author studied.

**The total volume of the dissertation with a sign indicating the volume of the structural sections of the dissertation separately.** The dissertation consists of an introduction (13 pages, 24964 characters), three chapters ((Chapter I-38 pages (65685 characters), Chapter II-34 pages (137114 characters), Chapter III-55 pages (84609 characters)), 8 sections, conclusion (8 pages, 15439 characters), list of used literature (11 pages), list of specialties (2 pages) and appendices (8 pages). The total volume of the compiled dissertation consists of 171 pages (206461 characters - excluding tables, graphs, appendices and list of literature), including 38 tables, 14 diagrams and 19 graphs. During the research, 135 sources were used, including Internet resources.

## **STRUCTURE OF THE DISSERTATION**

### **INTRODUCTION**

### **CHAPTER I. THE IMPORTANCE AND METHODOLOGICAL BASIS OF QUALITY ASSURANCE OF PERSONNEL TRAINING IN INCREASING LABOR PRODUCTIVITY**

1.1. Importance of quality assurance of personnel training in increasing labor productivity

1.2. Methodological foundations of quality management models adopted in the international framework

1.3. Normative legal basis of quality assurance of personnel training in accordance with the requirements of the labor market

### **CHAPTER II. PROBLEMS OF QUALITY ASSURANCE OF PERSONNEL TRAINING IN HIGHER EDUCATION INSTITUTIONS**

2.1. Analysis of the relationship between the income formed from tuition fees of higher education institutions and the results of its quality assessment

2.2. Problems of internal quality assurance of personnel training in accordance with the requirements of the labor market

2.3. Problems of external quality assurance of personnel training in accordance with the requirements of the labor market

### **CHAPTER III. PERCEPTION ANALYSIS OF QUALITY ASSURANCE CRITERIA AND DIRECTIONS FOR IMPROVING QUALITY ASSURANCE OF PERSONNEL TRAINING**

3.1. Perception analysis of quality assurance criteria for personnel training in accordance with the requirements of the labor market

3.2. Directions for improving quality assurance of personnel training to increase labor productivity

### **SUMMARY OF THE DISSERTATION**

**The introduction** substantiates the relevance of the topic, defines the goals and objectives, object and subject of the dissertation, and research methods, reflects the main provisions presented for the defense, scientific novelty, and theoretical and practical significance of the work.

In the **first chapter** of the dissertation, entitled “**The Importance and Methodological Basis of Quality Assurance of Personnel Training in Increasing Labor Productivity,**” the importance of quality assurance of personnel training in increasing labor productivity and the methodological bases in this direction are extensively investigated. The methodological foundations of internationally accepted quality management models and tools have been analyzed, comparative analyses have been conducted, and the prospects for the application of these models by Azerbaijani higher education institutions have been assessed. At the same time, the regulatory and legal framework regulating the quality assurance of personnel training in accordance with the requirements of the labor market has been analyzed, the state of reflection of the Quality

Assurance Standards for the European Higher Education Area (ESG) in relevant legislation and the possibilities of their application by Azerbaijani higher education institutions have been studied. Chapter 1 consists of 3 subchapters.

At present, high-tech and digital development, which increases multidisciplinary and accelerates the intersection of technologies, puts all of its weight on ensuring the quality of service in the education economy. Here, the assessment and improvement of the quality of the service provided by HEIs, which are the subjects of the formation of the education economy, is of great importance.

When conducting quality assurance activities in HEIs, the main customer is the labor market, and recently the success of the HEIs is not due to the increase in the number of graduates, but rather the employment of graduates, the average duration of employment, the average level of income, the applicability of the given education in the labor market, and the fact that the graduates satisfaction with the obtained qualifications is considered as the main quality indicators.

That is why investment in the quality of education is called "human investment" and it has a positive effect on economic and social development as well as changing the behavior of individuals in society.

Mismatches in terms of quantity, quality and expectations in the labor market have led to a shortage of skilled personnel. Quantitative inconsistency arises as a result of the training of personnel in the labor market, sometimes more than needed, and sometimes less than needed. Quality inconsistencies occur as a result of graduates not matching the skills and requirements required in the labor market.

There are 9 quality management models and 5 quality assurance tools that are applied in enterprises operating in the fields of production and services and accepted in the international arena. When we compare the relevant models and tools, we identify 4 similar areas of activity used in quality management that were depicted at Table 1.

**Table 1.**  
**Quality management models, approaches and joint activities**

Quality Assurance Models	Quality Assurance approaches	Joint activities
1. Deming application award criteria 2. Malcolm Baldrige's Framework for Excellence 3. EFQM Excellence Framework 4. ISO 21001-2018 5. Service quality model 6. SERVQUAL 7. SERVPERF 8. Grönros 9. TQM	1. Six sigma 2. Kaizen 3. PDCA 4. PDSA 5. DMAİC	1. Strategic planning, implementation and management; 2. Quality assurance, monitoring and improvement; 3. Data collection, processing, analysis and use in decision-making; 4. Efficient allocation and management of resources.

**Source:** The table was compiled by the author.

Legislation and normative legal acts regarding the implementation of the above-mentioned quality management models and tools by Azerbaijan's HEIs did not provide for restrictive circumstances. Also, the institutional accreditation evaluation criteria of HEIs evaluates the effective implementation of the directions mentioned in the relevant quality management models and tools during accreditation.

After 2019, the approval of the "Statute of the Agency for Quality Assurance in Education" (2019)<sup>6</sup>, "Rules for the Accreditation of Educational Institutions" (2020)<sup>7</sup>, "Evaluation Criteria for Institutional Accreditation of Higher Education Institutions" (2022)<sup>8</sup> at different times of external quality assurance activities provided the formation of a normative legal framework for its implementation.

<sup>6</sup> "Charter of the Quality Assurance Agency in Education" approved by the Decree of the President of the Republic of Azerbaijan dated December 29, 2019.

<sup>7</sup> "Rules for Accreditation of Educational Institutions" approved by Resolution No. 167 of the Cabinet of Ministers of the Republic of Azerbaijan dated September 28, 2010

<sup>8</sup> Institutional accreditation evaluation criteria approved by the Resolution No. KQ-05 dated September 30, 2022 of the Board of the Ministry of Science and Education of the Republic of Azerbaijan.

However, there is a need to form a normative legal framework to ensure the implementation of HEI internal quality assurance activities

It is necessary to make appropriate changes and improvements in the relevant legislation and normative legal acts to fully ensure the implementation of the 10 standards for internal quality assurance, which are applied in the European Higher Education Area and accepted in the international framework, by HEIs of Azerbaijan<sup>9</sup>. For example, HEIs should be given independence by setting certain frameworks by the state to design and update educational programs at the higher education level.

In the **second chapter** of the dissertation, entitled "**Problems of Quality Assurance of Personnel Training in Higher Education Institutions**", the existing problems in the field of quality assurance of personnel training in HEIs are comprehensively studied from various aspects. Chapter 2 consists of 3 subchapters.

In order to study the situation regarding the internal quality assurance of personnel training in HEIs according to the requirements of the labor market, the results of various surveys conducted by TKTA and the researcher were comparatively analyzed. According to the results of the survey conducted by TKTA among the academic and administrative staff, 20% of the participants are unaware of the existence of the Strategic Development Program in the HEIs where they work. Also, the staff working at the HEIs participating in the survey noted the following as disadvantages of the structural unit responsible for quality assurance:

- lack of a systematic approach to quality assurance;
- lack of qualified personnel;
- limitation of the academic independence of the said structure during its activity;
- that the said structural unit has only an audit function<sup>10</sup>.

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<sup>9</sup> Asiman Ilyasov, Sevil Imanova, Addin Mushtagov & Zulfiyya Sadigova Modernization of quality assurance system in higher education of Azerbaijan // Quality in Higher Education. -2023.

<sup>10</sup> Ilyasov, A.R. Existing problems in the strategic planning of personnel training in accordance with the requirements of the labor market of higher educational

A survey prepared by the researcher among the heads of structural units responsible for the quality assurance of personnel training in HEIs was conducted in 2023 and the results of the survey were analyzed. 23 HEIs were represented in the survey.

As a result of the survey, it was determined that the structure related to quality assurance has been operating for an average of 3 years in 23 HEIs participating in the survey. When talking about the current state of the quality assurance system in the HEIs where they work, 52.5% of the respondents said that it only has an audit function, and 79% said that the relevant structural unit does not meet international standards. At the same time, 60.9% of the respondents either disagree or partially agree with the opinion that the quality assurance literacy among the academic and administrative staff in the HEIs where they work is satisfactory. 52.2% of those who participated in the survey either partially agree or disagree with the idea that the HEIs they work for prepares staff according to the requirements of the labor market.

As a result of the survey conducted by the researcher among the persons responsible for internal quality assurance, the respondents noted the following regarding the difficulties they encountered in relation to internal quality assurance (or problems related to internal quality assurance) in the HEIs where they worked<sup>11</sup>:

- Resistance of most employees;
- Lack of qualified personnel;
- Conservative approach to innovations of the representatives of the older generation;
- Lack of understanding of the quality assurance culture (subsequent survey results support this view).

As a continuation of the research, the recommendations given by the Accreditation Commission to 42 HEIs after the accreditation

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institutions // - Ganja: Azerbaijan University of Technology Innovative Economy and Management. – 2022, No. 1. - p. 41-48.

<sup>11</sup> Ilyasov, A.R. The role of quality assurance structures in the training of students in accordance with the labor market requirements of higher education institutions in Azerbaijan // – Mingachevir: Mingachevir State University Journal of sustainable development. - 2022. No. 2 –p. 32-41.

evaluation in the period of 8 years (2014-2022) were divided into categories according to the criteria and analyzed.

**Table 2.**

**Regarding the recommendations given to HEIs after the accreditation assessment**

Recommendations	HEI	%
Preparation and approval of the strategic development plan	14	41,18
Regarding the improvement of strategic management	11	32,35
Regarding establishment of Quality Assurance Center or department	5	14,71
Regarding the improvement of the quality assurance system	9	26,47
Development of the student support system	5	14,71
Building a student-centered system	2	5,88
Regarding the consideration of labor market requirements	13	38,24
Improvement of a graduate recruitment, career planning and tracking system	13	38,24
Application of the differential evaluation system	11	32,35

**Source:** The table was compiled by the author based on the final reports prepared by the Accreditation Commissions.

According to Table 2, it can be said that during the accreditation assessment, deficiencies were found on the main above-mentioned issues related to the quality assurance of personnel training in higher education institutions.

The increase in the number of students at HEIs has led to an increase in their income. In the thesis, the relationship between the income of 32 HEIs accredited between 2014-2022 and the accreditation assessment results was analyzed.

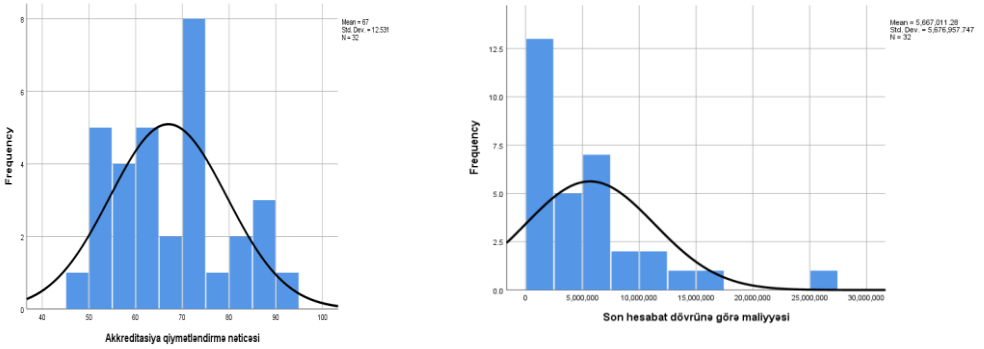
Data reliability was analyzed with Cronbach's  $\alpha$  coefficient and the result was 0.69. Pearson and Spearman correlation tests were used to measure the relationship, taking into account that the results of the accreditation assessment are normal, and the financial indicators according to the last reporting period are not normally distributed



(Graph 1) and the relationship between the variables was determined according to the table below.

**Graph 1.**

**Distribution indicators for two inductors**



**Source:** The graph was compiled from SPSS software results.

**Table 3.**

**Pearson correlation test results**

		<b>Income</b>	<b>Accreditation assessment results</b>
<b>Financial for the last reporting period</b>	Pearson Correlation	1	.104
	Sig. (2-tailed)		.006
	N	32	32
<b>Accreditation assessment result</b>	Pearson Correlation	.104	1
	Sig. (2-tailed)	.006	
	N	32	32

**Source:** The table was compiled from SPSS software results.

**Table 4.**

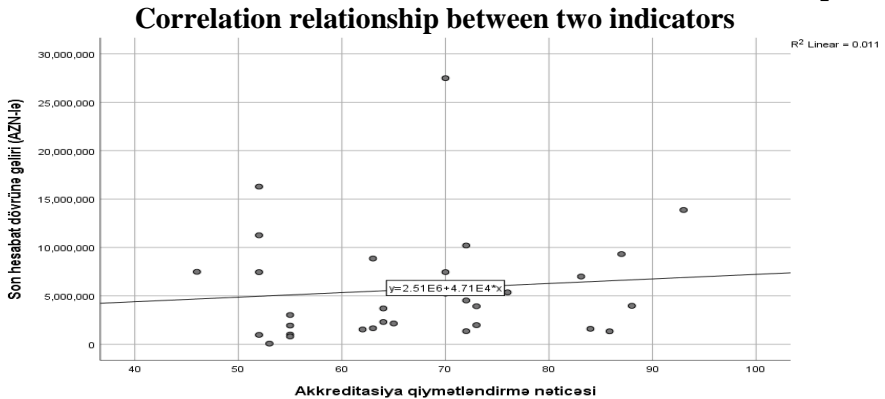
**Spearman correlation test results**

		<b>Income</b>	<b>Accreditation assesment results</b>
<b>Financial for the last reporting period</b>	Correlation Coefficient	1.000	.131
	Sig. (2-tailed)	.	.007
	N	32	32

<b>Accreditation assessment result</b>	Correlation Coefficient	.131	1.000
	Sig. (2-tailed)	.007	.
	N	32	32

**Source:** The table was compiled from SPSS software results.

**Graph 2.**



**Source:** The graph was compiled from SPSS software results.

As can be clearly seen from Tables 3, 4 and Graph 2, there is a very weak positive relationship between the financial income of HEIs and the results of the accreditation assessment for the year in which the accreditation assessment was carried out. This means that most of the income of the enterprises is not reflected in the quality results, as it is spent on the salary fund and not on the better preparation of the students for the labor market.

In **Chapter 3** of the dissertation, entitled "**Perception analysis of quality assurance criteria and directions for improving quality assurance of personnel training**", a perception analysis of quality assurance criteria was conducted and directions for improving quality assurance of personnel training were studied. Chapter 3 consists of 2 subchapters.

To determine the quality criteria of personnel training according to the requirements of the labor market from the point of view of the thoughts of the academic and administrative staff working in HEIs, as well as the criteria mentioned by the academic or administrative staff gender, scientific degree, pedagogical experience, work experience

and the form of ownership of the enterprise where they work. In order to investigate whether there is a meaningful relationship between The survey results were appropriately coded using the SPSS software, the normality of the distribution was analyzed and, taking into account the results of the distribution, various non-parametric tests (Cronbach's alpha reliability test, Man Whitney U test (for parameters with two categories) and Kruskal Wallis (more than 2 categories) parameters) tests) were used. 1705 respondents working at different HEIs took part in the survey.

**Table 5.**

**Distribution of respondents in different categories**

Category	Number of respondents	%
Male	503	30%
Female	1202	70%
With a scientific degree or scientific title	668	39%
Without a degree or academic title	1037	61%
Academic staff	1149	67%
Administrative staff	556	33%
Having more than 20 years of work experience	719	42%
With more than 20 years of teaching experience	559	33%
Working at the state HEIs	1553	91%
Working at a private HEIs	152	9%

**Source:** The table was compiled by author based on survey results.

As it is clear from Table 5, when we pay attention to the distribution of respondents by categories, we can see that in the survey, women (70%), those without a scientific degree or academic title (61%), academic staff (67%), as well as in state HEIs working academic and administrative staff (91%) prevail. 42% of the survey respondents have more than 20 years of work experience, and 33% have more than 20 years of teaching experience.

Based on statistical analysis, it was determined that the criteria with which the majority of respondents agree or completely agree are

reflected in the evaluation criteria for institutional accreditation in the country.<sup>12</sup>.

**Table 6.**

**Final results of the Mann Whitney U test for binary categories**

Category	Form of ownership	Academic degree	Position	Gender
Quality criteria for teaching	No significant relationship	Significant relationship is observed	Significant relationship is observed	Significant relationship is observed
Quality criteria for scientific research	No significant relationship	No significant relationship	Significant relationship is observed	No significant relationship
Quality criteria for student support system	No significant relationship	Significant relationship is observed	Significant relationship is observed	No significant relationship

**Source:** The table was compiled by the author based on the analysis of survey results in SPSS.

**Table 7.**

**Final results of the Kruskal-Wallis test for binary categories**

Category	Work experience	Teaching experience
Quality criteria for teaching	Mənahi əlaqə aşkarlanmamışdır	Significant relationship is observed
Quality criteria for scientific research	Significant relationship is observed	Significant relationship is observed
Quality criteria for student support system	Significant relationship is observed	Significant relationship is observed

**Source:** The table was compiled by the author based on the analysis

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<sup>12</sup> Ilyasov, A.R., The state of reflection of the perception of the academic and administrative staff working in higher educational institutions on the quality criteria of personnel training in accordance with the requirements of the labor market in the accreditation criteria // - Ganja: Azerbaijan University of Technology Innovative Economy and Management. – 2023, No. 1. - p. 117-122.

As it is clear from Tables 6 and 7, as a result of the analysis, it is observed that there is a significant difference between the indicators mentioned by the academic and administrative staff working in HEIs regarding the criteria of personnel training in accordance with the requirements of the labor market in a number of categories that they include. Thus, as a result of the perception analysis, it was determined that the respondent's gender, pedagogical experience, position, and academic degree influence the quality criteria for teaching. It was determined that the respondent's work experience, pedagogical experience and position affect the quality criteria for scientific research. In addition, it was found that work experience, pedagogical experience, academic degree and position influence the quality criteria of the student-support system.

The level of agreement of men on quality criteria for teaching is 0.68 times less than that of women. At the same time, it is observed that the level of satisfaction of the academic staff with the established quality criteria for teaching is 0.7 times less than the level of satisfaction of the administrative staff. Also, the level of agreement of the academic staff on the quality criteria for scientific research is 0.75 times lower than that of the administrative staff. In addition, the level of agreement of the academic staff on the quality criteria of the student support system is 0.64 times lower than that of the administrative staff.

Using many different tools, it has been determined that it is possible to achieve certain improvements in the training of personnel in accordance with the requirements of the labor market in HEIs. So, based on the above analysis, it can be noted that for the quality assurance of personnel training in accordance with the requirements of the HEI labor market, activities should be carried out in the 4 directions indicated in Diagram 1:

**Diagram 1.**

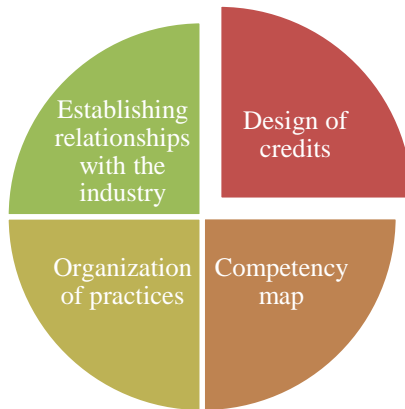
**Action directions for quality assurance of personnel training in accordance with the requirements of the labor market**



**Source:** The diagram was compiled by the author.

**Diagram 2.**

**Tools to be used during the organization of training for personnel training according to the requirements of the labor market**



**Source:** Diagram was compiled by the author.

As can be seen from Diagram 1, one of the main activities for personnel training according to the requirements of the labor market is the organization of training, and at this time, a number of tools mentioned in Diagram 2 can be used.

## **CONCLUSION**

As a result, the following were determined:

1. Quality assurance of personnel training in accordance with the requirements of the labor market supports economic development not only by increasing the knowledge and skills of students, but also by forming their ability to adapt to changing labor market conditions. This requires HEIs to become structures that provide not only theoretical knowledge, but also practical experience.
2. Existing studies have partially addressed the issues of personnel training in accordance with the requirements of the labor market of Azerbaijani HEIs, but a comprehensive and systematic analysis of the existing problems in this area has not been conducted. Specific directions of action for development prospects and models in line with international experience have not been presented.
3. Although there is a normative legal framework and implementation mechanisms for external quality assurance of HEIs, there are no specific instructions or legislative basis for internal quality assurance.
4. The results of surveys conducted among various respondent groups (students, teaching staff and administrative staff) and the results of the accreditation assessment of HEIs have been analyzed. According to the research results, one of the main conclusions obtained is the ineffectiveness of internal quality assurance systems and their insufficient coordination with strategic planning. The accreditation results of HEIs show that most of the recommendations given by the accreditation commission after the accreditation assessment are related to quality assurance, strategic development and management.
5. During the analysis of the strategic development programs of HEIs, it was determined that the methodologies used in international practice (SWOT, PESTEL, OKR) were not applied. In addition, the insufficient reflection of issues related to the application of student support systems and international standards in these programs leads to the weakness of the student experience.

6. It was observed that the differential salary system is not fully integrated with the strategic goals of enterprises. Such an approach prevents the formation of effective motivation mechanisms.
7. It was found that the activities of quality assurance structures in HEIs are far from the main directions envisaged in international practice. For example, it is observed that these structures are limited to the organization of teaching, examination control and audit functions. However, their main mission is the development of internal quality assurance systems and support for strategic decisions.
8. There are no legislative restrictions on the application of international quality management models (ISO 21001-2018, TQM, EFQM, etc.) in Azerbaijani HEIs. However, for the successful implementation of these models, increasing technical knowledge, sharing international experience and efficient management of resources are important.
9. The fact that most of the financial income is directed to the salary fund does not have a noticeable impact on the quality of education. This is due to the ineffective distribution of financial resources.
10. An analysis of the perceptions of the academic and administrative staff working in HEIs on the quality criteria of personnel training in accordance with the requirements of the labor market was conducted. As a result of the perception analysis, it was determined that there is a significant difference between the perceptions of the respondents in a number of categories. Thus, as a result of the perception analysis, it was determined that the gender, pedagogical experience, position, and scientific degree of the respondent affect the quality criteria for teaching. It was determined that the quality criteria for scientific research were affected by the respondent's work experience, pedagogical experience and position. In addition, it was found that the quality criteria for the student support system were affected by work experience, pedagogical experience, scientific degree and position.
11. As a continuation of the perception analysis, regression analysis was conducted. As a result of the ordinal regression analysis,



it can be said that the level of satisfaction of men with the quality criteria for teaching is 0.68 times lower than that of women. At the same time, it is observed that the level of satisfaction of academic staff with the quality criteria for teaching is 0.70 times lower than that of administrative staff. Also, the level of satisfaction of academic staff with the quality criteria for scientific research is 0.75 times lower than that of administrative staff. In addition, the level of satisfaction of academic staff with the quality criteria for the student support system is 0.64 times lower than that of administrative staff.

12. Academic and administrative staff's perceptions of quality assurance are aligned with institutional accreditation criteria, suggesting that accreditation processes are a powerful tool for monitoring, analysis, and improvement.

## **SUGGESTIONS**

Taking into account the results obtained at the end of the study, the following rationalization proposals can be made:

1. HEIs should determine the choice of a specific model based on internal and external criteria. In this process, HEIs should take into account both internal and external quality assurance criteria for personnel training in accordance with the requirements of the labor market. Thus, HEIs can successfully apply it by selecting a quality assurance model in accordance with their specific goals and objectives;
2. It is important to improve the legal and methodological basis for the implementation of a unified policy and approach in internal quality assurance. For this purpose, necessary amendments should be made to the legislation on personnel training in accordance with the labor market, and methodological instructions should be prepared. These instructions should be presented to HEIs by the relevant executive authority in the form of recommendations. At the same time, these recommendations should be aimed at the formation and application of unified principles of quality assurance;
3. HEIs should prioritize the main directions for the implementation of the student support system and international standards when preparing strategic development programs. These

programs should also cover progress in local and international ratings, digitalization, and the development of ICT infrastructure. This approach will ensure that HEIs adapt to global standards and increase their competitiveness;

4. A mechanism for implementing and monitoring strategic development programs should be organized. During the implementation of strategic development programs, attention should be paid not only to scientific research activities, but also to aspects such as the educational activities of the institution, its qualitative organization, as well as the integration of innovations into the educational process. Also, regular monitoring of the goals and results determined during the implementation of these programs should be carried out, and additional steps for development should be identified;

5. HEIs should spend a significant part of their income on improving the educational infrastructure in order to train personnel in accordance with the requirements of the labor market. At the same time, it is necessary to regularly study the impact of these investments on the overall quality results of the institution;

6. Student admission planning requires a multifaceted approach in order to take into account the quantitative requirements of the labor market. The institution should analyze the employment indicators of its graduates and predict in advance the opportunities for students to find work in the future. These forecasts should be formulated taking into account the availability of qualified personnel with appropriate qualifications, the strength and availability of the education and science infrastructure, as well as employment opportunities in the country for certain specialties. Also, structural changes in the labor market (technological innovations, the emergence of new fields, etc.) should be taken into account in student admission planning, and flexibility of education should be ensured in the face of new professional fields and requirements that will arise in the future. This approach will allow for the provision of continuous and appropriate personnel training in line with the requirements of the labor market;

7. The determination of internal quality assurance monitoring criteria should be based on relevant policies and strategies. In addition, institutional and program accreditation assessment criteria within the framework of external quality assurance should also be taken into account. The criteria should be comprehensive and cover areas such as strategic development, student-oriented teaching, organization of scientific research, internationalization performance, level of digitalization, activity of academic and non-academic staff, satisfaction of stakeholders, changing labor market requirements, level of graduate competencies, and inclusiveness in the educational infrastructure;
8. Analysis and coordination of monitoring results should form the basis of effective management. Monitoring results should be analyzed, and the results of the analysis should be discussed with the relevant structural units of the enterprise and coordinated with their activities. The goal of this process is to use monitoring results to improve activities and increase quality;
9. Cooperation with industry in accordance with the requirements of the labor market plays an important role in the organization of education. For this purpose, tools such as establishing industrial relations, designing the credit system of educational programs in accordance with the requirements of the labor market, preparing a map of the competencies that students should acquire, and organizing industrial internships can be used. This approach makes educational programs practical and relevant to the labor market, and allows students to apply their knowledge and skills in real work conditions;
10. Modern tools should be used to evaluate the teaching activities of academic staff. In order to improve the quality of education, tools such as surveys, lesson observations, professional development programs, professional partnership agreements and analytical observation of teaching activities can be applied. This approach is important for improving the teaching skills of academic staff and offering students higher quality education.
11. The educational institution should develop a joint program for industrial practice with the enterprise where students are involved, clearly define the learning outcomes and establish a mechanism for

their assessment. After the end of the internship period, surveys should be conducted with both students and the enterprise where the industrial practice is carried out, and these results should be used as a basis for further improving educational programs. This ensures that internship programs are more effective and students' practical skills are strengthened.

12. Multidisciplinary approaches should be applied for the professional development of academic staff. For this purpose, it is important to organize advanced training programs in industrial enterprises. These programs help to adapt the professional knowledge of academic staff to the work environment. In addition, involving professionals from industrial enterprises as guest speakers in the educational process adds practical value to educational programs. Developing curricula and subject programs in accordance with industrial requirements ensures the market relevance of students' knowledge.

13. Higher education institutions should take into account the position of external stakeholders, as well as internal stakeholders. External stakeholders, including employers, graduates, industry representatives and the public, play an important role in increasing the effectiveness of educational programs and ensuring compliance with labor market requirements.

14. There is a need to increase the awareness of academic and administrative staff on quality assurance. In order to increase awareness in this area, awareness-raising seminars, training programs and business meetings should be organized. This is important for understanding the importance of quality assurance processes and ensuring their successful implementation.

15. Higher education institutions should be given independence to design and update educational programs. In addition to the development of certain frameworks by the state, independent decision-making of higher education institutions within these frameworks should be encouraged. This approach will increase the flexibility of educational programs, adapt them to the requirements of the modern era, and facilitate the implementation of innovative solutions.

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1. Ilyasov, A.R. Existing problems in the strategic planning of personnel training in accordance with the requirements of the labor market of higher educational institutions // - Ganja: Azerbaijan University of Technology Innovative Economy and Management. – 2022, No. 1. - p. 41-48.
2. Ilyasov, A.R. The state of higher education institutions taking into account the changes in the labor market in predicting demand // – Nakhchivan: Nakhchivan University Scientific Works. - 2022. No. 3. - p. 82-95
3. Ilyasov, A.R. The role of quality assurance structures in the training of students in accordance with the labor market requirements of higher education institutions in Azerbaijan // – Mingachevir: Mingachevir State University Journal of sustainable development. - 2022. No. 2 –p. 32-41
4. Ilyasov, A.R. Reflection of indicators related to consideration of labor market requirements in accreditation criteria // – Baku: Baku Business University Audit. – 2022, No. 4. - p. 41-48.
5. Ilyasov, A.R The current state of internal quality assurance for personnel training in accordance with the requirements of the labor market in higher education institutions // XXVI multidisciplinary Republican scientific-practical conference of higher education students and graduates dedicated to the 98th anniversary of the birth of the national leader Heydar Alirza oglu Aliyev. - Baku: Western Caspian University, - 2021, - p. 458.
6. Ilyasov, A.R The current state of strategic planning in personnel training of higher educational institutions according to the requirements of the labor market // XXVI multidisciplinary Republican scientific-practical conference of higher education students and graduates dedicated to the 98th anniversary of the birth of national leader Heydar Alirza oglu Aliyev. - Baku: Western Caspian University, - 2021, - p. 459.
7. Asiman Ilyasov, Sevil Imanova, Addin Mushtagov & Zulfiyya Sadigova Modernization of quality assurance system in higher

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8. Ilyasov, A.R., The state of reflection of the perception of the academic and administrative staff working in higher educational institutions on the quality criteria of personnel training in accordance with the requirements of the labor market in the accreditation criteria // - Ganja: Azerbaijan University of Technology Innovative Economy and Management. – 2023, No. 1. - p. 117-122.
9. Ilyasov, A., Current situation of external quality assurance of student preparation in higher education institutions in line with the labor market demand // Conference: International Scientific and Practical Conference «ECONOMIC SCIENCES AND MANAGEMENT IN THE MODERN WORLD – 2023, p. 22-32
10. Ilyasov, A., Research of Application Feasibility of International Quality Management Models at Azerbaijan Higher Education Institutions // European Journal of Economics and Management Sciences, No 1 - 2024, p.19-24 DOI:10.29013/EJEMS-24-1 -19-24
11. Ilyasov, A.R. Strengths and weaknesses of higher educational institutions related to strategic management and quality assurance // – Ganja: Azerbaijan University of Technology Innovative Economy and Management. – 2024, No. 1. - p. 123-127.
12. From the point of view of external quality assurance, the state of strategic development of personnel training of higher education institutions according to the requirements of the labor market // – Ganja: Azerbaijan University of Technology. Azerbaijan University of Technology, international scientific-practical conference dedicated to the 101st anniversary of the birth of National Leader Heydar Aliyev on the topic "The current state and development prospects of science and technology during the fourth industrial revolution" - 2024, No. 2. - p. 230-234.
13. Asgarova, V., Ilyasov, A., & Ashraf, M. A. (2024). Refocusing education: understanding higher education institutions' needs for human resource development in Azerbaijan. Central Asian Survey, 1–23. <https://doi.org/10.1080/02634937.2024.2399287>



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