

**REPUBLIC OF AZERBAIJAN**

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**A B S T R A C T**

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  
of enterprises”  
Field of science: Economic sciences  
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**Baku – 2024**

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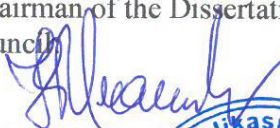
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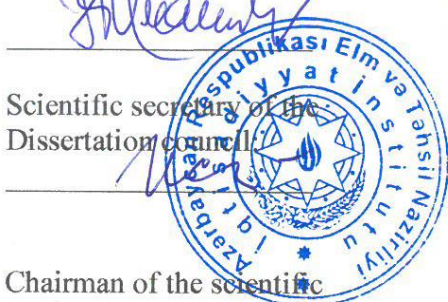
Dissertation council BED 1.10 of Supreme Attestation Commission under the President of the Republic of Azerbaijan operating at the Institute of Economics of the Ministry of Science and Education of the Republic of Azerbaijan

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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 - ATM) 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

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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.

time, 14% of unemployed persons over 25 years of age are persons 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 ATMs 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 ATMs. 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 ATMs 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, ATMs 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

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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.

and R. Khumbatov have given a lot of space in their works to the issues of improving management mechanisms in production and service 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 ATMs 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 ATM. Taking into account these needs, the problems of quality assurance of personnel training in accordance with the requirements of the labor

market of ATMs 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 ATMs of Azerbaijan. The subject of the study is the regularities of formation and development of quality management related to personnel training in ATMs 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 ATMs 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 ATMs 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 ATMs in Azerbaijan;

3. To examine the state of reflection of the provisions on quality assurance of personnel training in ATMs, as well as the standards presented on internal quality assurance in AST, 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 ATMs of Azerbaijan and to make effective suggestions for eliminating the identified problems;

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

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

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 and Kruskal Wallis tests, and the hypotheses put forward by the researcher were checked. The relationship between the accreditation evaluation results of ATMs and their income during the accreditation period was analyzed by Pearson and Spearman correlation test.

**The main provisions defended:**

1. The quality assurance of personnel training has an important role for increasing labor productivity;

2. In the quality management models of enterprises accepted in the international arena, most of the activities within the framework of the 9 models are similar, and there is no limitation from the legislative point of view for the implementation of the tools intended for the implementation of the models by ATMs of Azerbaijan;

3. Despite the fact that there is a relevant normative legal framework regulating the external quality assurance of personnel training of ATMs in Azerbaijan, issues related to internal quality assurance exist fragmentarily in relevant normative legal acts. Also, there is a need to improve the regulatory legal framework to ensure the full implementation by ATMs of the requirements of the internal quality assurance standards mentioned in the AST;

4. From the analysis of the results of various surveys conducted on the internal quality assurance of ATMs and the evaluation of external quality assurance, it was determined that the main shortcomings stem from the lack of an efficient internal quality assurance system and strategic management;

5. There is a very weak positive correlation between the financial income of ATMs and the results of the accreditation assessment for the year in which the accreditation assessment was carried out;

6. Among the indicators mentioned by the academic and administrative staff working in ATMs regarding the criteria of personnel training in accordance with the requirements of the labor market, a significant difference is observed in a number of categories 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, scientific degree and position influence the quality criteria of the student-support system;

7. In ATMs, activities should be carried out in different directions using various tools determined in the direction of quality assurance of personnel training in accordance with the requirements of the labor market.

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

1. The state of reflection of the standards of AST on internal quality assurance of staff training in the relevant legislation and other normative legal acts of Azerbaijan was analyzed;
2. A mutual comparative analysis of 9 quality management models applied in the international arena was carried out and common directions were determined for the relevant models, as well as the possibility of application by ATMs of Azerbaijan was investigated;
3. The results of the survey conducted by the researcher among the persons responsible for internal quality assurance working in ATMs, as well as the results of the survey conducted by TKTA were analyzed, problems related to internal quality assurance were identified and effective suggestions were made;
4. The results of the accreditation assessment of the ATMs, which were assessed in 8 years (2014-2022), were analyzed based on the accreditation criteria. At the same time, on the basis of relevant reports, the recommendations given by the Accreditation Commission to the enterprises (resulting from the detected

deficiencies) were compared and noted the most. directions of recommendations are defined;

5. Correlation analysis was conducted between ATMs' income from tuition fees and their accreditation assessment results;
6. The influence of the thoughts, gender, scientific degree, pedagogical experience, work experience and the form of ownership of the enterprise working in ATMs on the quality criteria of personnel training according to the requirements of the labor market was analyzed.

**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 ATMs 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 have been presented at various local and international conferences. Thus, the results of the research were published in 7 local and 1 foreign scientific journals, as well as 3 conference materials, including 1 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, 24855 marks), three chapters (Chapter I - 27 pages ( 41273 marks), Chapter II - 34 pages ( 33906 marks), Chapter III - 66 pages ( 87363 marks), 8 sections, conclusion (8 pages, 14080 marks), consists of a list of references (11 pages), abbreviations (2 pages) and an appendix (8 pages). The total volume of the prepared dissertation is 171 pages (207318 marks - excluding tables, graphs, appendices and a list of references). ), including 38 tables, 14 diagrams and 19 graphs. 135 sources, including internet resources, were used during the research.

## MAIN SCIENTIFIC PROVISIONS SUBMITTED TO THE DEFENSE

### **PROVISION 1. Quality assurance of personnel training plays an important role in increasing labor productivity.**

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 ATMs, which are the subjects of the formation of the education economy, is of great importance.

When conducting quality assurance activities in ATMs, the main customer is the labor market, and recently the success of the ATM 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.

**Table 1.**

#### **SWOT analysis of personnel training according to the requirements of the labor market**

| Strengths  | Weaknesses  |
|--|---|
| High share of the young generation in the population.<br>Presence of growth dynamics in employment indicators of persons aged 16-29. | The increase in ATM revenues is not reflected in the quality indicators.<br>Failure to take into account employment indicators for relevant specialties in the labor market, as |

|   |  |
|---|--|
| <p>Existence of employment legislation and state strategy.</p> <p>In the last 5 years, the formation of structural units responsible for quality assurance, as well as career and graduate work in ATMs.</p> <p>Establishment of state institutions (DMA, National Observatory) operating in the direction of monitoring and increasing employment opportunities in the labor market.</p> <p>Determining the ratings of ATMs based on the employment indicators of ATMs by DMA, as well as the ratings of specialties for specialties with high employment opportunities.</p> | <p>well as the employment status of ATM graduates during student admission planning.</p> <p>Lack of effective organization of quality assurance system and strategic management in ATM for personnel training according to labor market requirements.</p> <p>Lack of qualified personnel to support the establishment of the quality assurance system in ATMs in various directions.</p> <p>ATM internal resistance to establishing a quality assurance system.</p> <p>Inadequate level of awareness in ATMs about the activities to be carried out and the tools to be used in order to take into account the requirements of the labor market.</p> |
| <b>Opportunities</b>  | <b>Threats</b>   |
| <p>Provision of financial support by the state to ATMs in accordance with quality indicators (accreditation results and employment rate of graduates).</p> <p>Improvement of the relevant legislation for labor market subjects to employ trainees on a short-term paid basis as a practice period.</p> <p>Application of certain concessions to subjects of the labor market in accordance with their contribution to the teaching and research process at ATMs.</p>   | <p>Economic crises.</p> <p>Pandemic.</p> <p>War or regional conflicts.</p> <p>Reduction of funds allocated to higher education or research from the state budget.</p>  |

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

**PROVISION 2. In the quality management models of enterprises accepted in the international arena, most of the activities within the framework of 9 models are similar, and from**

**the point of view of the legislation, there is no limitation for the implementation of the tools intended for the implementation of the models by ATMs of Azerbaijan.**

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 (Table 2) used in quality management.

**Table 2.**

**Quality management models, approaches and joint activities**

| Quality Assurance Models  | Quality Assurance approaches                                | Joint activities   |
|---|---|--|
| 1. Deming application award criteria<br>2. Malcolm Baldrige's Framework for Excellence<br>3. EFQM Excellence Framework<br>4. ISO 21001-2018<br>5. Service quality model<br>6. SERVQUAL<br>7. SERVPERF<br>8. Grönros<br>9. TQM | 1. Six sigma<br>2. Kaizen<br>3. PDCA<br>4. PDSA<br>5. DMAİC | 1. Strategic planning, implementation and management;<br>2. Quality assurance, monitoring and improvement;<br>3. Data collection, processing, analysis and use in decision-making;<br>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 ATMs did not provide for restrictive circumstances. Also, the institutional accreditation evaluation criteria of ATMs evaluates the effective implementation of the directions mentioned in the relevant quality management models and tools during accreditation.

**PROVISION 3. Despite the existence of a relevant normative legal framework regulating external quality assurance of personnel training of ATMs in Azerbaijan, issues related to**

**internal quality assurance exist fragmentarily in relevant normative legal acts. Also, there is a need to improve the regulatory legal framework to ensure the full implementation of the requirements of the internal quality assurance standards mentioned in the AST by ATMs.**

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. However, there is a need to form a normative legal framework to ensure the implementation of ATM 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 ATMs of Azerbaijan<sup>9</sup>. For example, ATM should be given independence by setting certain frameworks by the state to design and update educational programs at the higher education level.

**PROVISION 4. As a result of the analysis of the results of various surveys conducted on the internal quality assurance of ATMs and the assessment of external quality assurance, it was determined that the main shortcomings are caused by the lack of**

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<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.

<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.

## **an efficient internal quality assurance system and strategic management.**

In order to study the situation regarding the internal quality assurance of personnel training in ATMs 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 ATM where they work. Also, the staff working at the ATMs 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>.

A survey prepared by the researcher among the heads of structural units responsible for the quality assurance of personnel training in ATMs was conducted in 2023 and the results of the survey were analyzed. 23 ATMs 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 ATMs participating in the survey. When talking about the current state of the quality assurance system in the ATM 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 ATM where they work is satisfactory. 52.2% of those who participated in the survey either partially agree or disagree with the idea that the

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

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

**Table 3.**  
**Regarding the recommendations given to ATMs after the accreditation assessment**

| Recommendations   | ATM | %     |
|---|-----|-------|
| 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 |

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<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.

|  |    |       |
|--|----|-------|
| 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 3, 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.

**PROVISION 5. There is a very weak positive correlation between financial income and accreditation assessment results of ATMs for the year of accreditation assessment.**

One of the main quality indicators of ATMs is the employment indicators of graduates, and this indicator also affects the international rating indicators of ATMs. Thus, the State Employment Agency (DMA) has determined the rating of a number of ATMs based on the employment indicators of graduates for 2018-2021<sup>12</sup>.

**Graph 1.**

**Graduate employability ranking of ATMs**



**Source:** Rating prepared by the State Employment Agency<sup>13</sup>

<sup>12</sup> URL: <https://dma.gov.az/layiheler/mezunlarin-mesgulluq-reytingi>

<sup>13</sup> URL: <https://dma.gov.az/layiheler/mezunlarin-mesgulluq-reytingi>

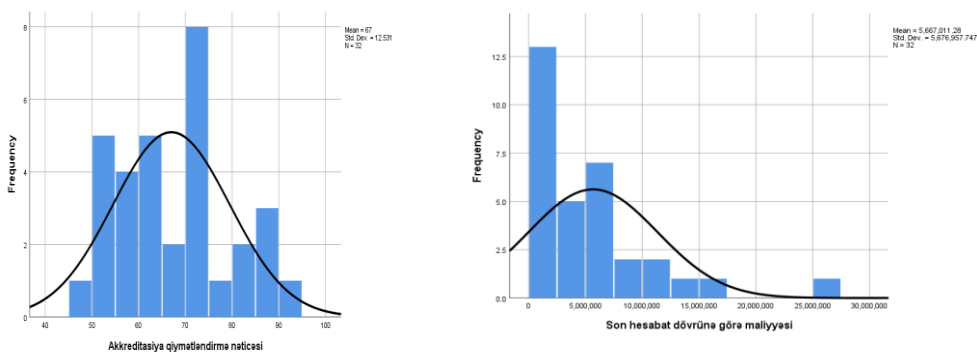
Despite the fact that ATMs have increased the number of available students by increasing the enrollment plan over the years, according to the latest data of the DMA, it can be said that the number of graduates who graduated in 2018-2021 and who are employed or engaged in entrepreneurial activities in the labor market is less than the corresponding ATM the percentage of the total number of graduates per year is not satisfactory. Thus, it is clear from Graph 1 that the employment rate of graduates of ASNSU and UNEC is higher than 50% out of 13 ATMs (this indicator is also considered as a low indicator).

The increase in the number of students at ATMs has led to an increase in their income. In the thesis, the relationship between the income of 32 ATMs 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 2) and the relationship between the variables was determined according to the table below.

**Graph 2.**

**Distribution indicators for two inductors**



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

**Table 4.****Pearson correlation test results**

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

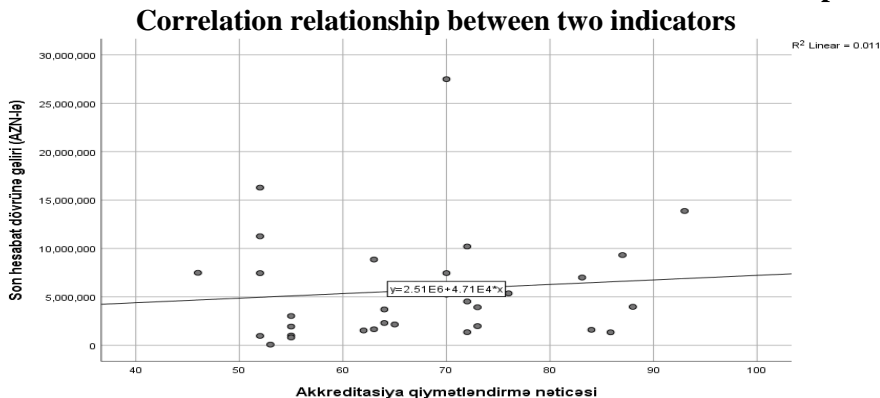
**Source:** The table was compiled from SPSS software results.

**Table 5.****Spearman correlation results**

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

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

**Graph 3.**



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

As can be clearly seen from Tables 4, 5 and Graph 3, there is a very weak positive relationship between the financial income of ATMs 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.

**PROVISION 6. Among the indicators mentioned by the academic and administrative staff working in ATMs regarding the criteria of personnel training in accordance with the requirements of the labor market, there is a significant difference in categories that they belong.**

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 ATMs, 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 test (for

parameters with two categories) and Kruskal Wallis (more than 2 categories) parameters) tests) were used. 1705 respondents working at different ATMs took part in the survey.

**Table 6.**

**Distribution of respondents in different categories**

| <b>Category</b>                                | <b>Number of respondents</b> | <b>%</b> |
|--|------------------------------|----------|
| 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 ATM                       | 1553                         | 91%      |
| Working at a private ATM                       | 152                          | 9%       |

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

As it is clear from Table 6, 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 ATMs 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>14</sup>

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<sup>14</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

The results of the survey conducted for the purpose of perception analysis were analyzed by means of non-parametric tests, Mann-Whitney U and Kruskal-Wallis test.

**Table 7.**

**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 8.**

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

| Category                                    | Work experience                      | Teaching experience                  |
|---|--------------------------------------|--------------------------------------|
| Quality criteria for teaching               | Mənalı 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 of survey results in SPSS.

As it is clear from Tables 7 and 8, 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 ATMs 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.

**PROVISION 7. ATMs should be operated in different directions using various tools determined in the direction of quality assurance of personnel training in accordance with the requirements of the labor market.**

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 ATMs. 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 ATM 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**

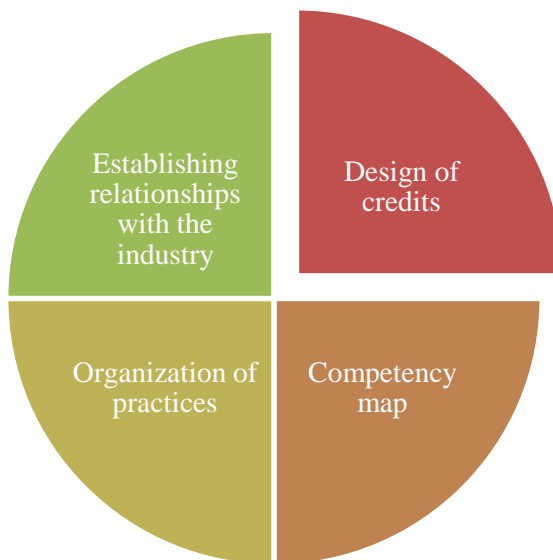


**Source:** The diagram was compiled by the author.

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.

**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.

**CONCLUSION**

As a result, the following were determined:

1. Despite the existence of an advanced normative-legal framework and implementation mechanism for the quality assurance of personnel training in Azerbaijan's higher education institutions from the point of view of external quality assurance, there is no legislation or instruction on the internal quality assurance of personnel training in accordance with the requirements of the labor market in higher education institutions. Also, there is a need to improve the normative legal framework to ensure that the requirements of the internal quality assurance standards

- mentioned in the AST are fully implemented by higher education institutions;
2. It has been determined that the main problems in the personnel training of higher education institutions in accordance with the requirements of the labor market are caused by the lack of a satisfactory level of internal quality assurance system, strategic planning and management. Thus, from the analyzes conducted based on the accreditation evaluation results, it appears that the recommendations given after the accreditation evaluation in most higher education institutions are the preparation, implementation and monitoring of the Strategic Development Program in higher education institutions, the formation of an effective quality assurance system for personnel training in accordance with the requirements of the labor market;
  3. Strategic development programs of higher education institutions were analyzed on the basis of the criteria established by the author. It was determined that the strategies developed by higher education institutions do not carry out analyzes used in international practice (SWOT, PESTEL, Okr). Also, issues related to the student support system and the application of international standards are among the issues that are not reflected in the Strategic Development Programs;
  4. It was determined that the directions and criteria of quality management models are similar (strategic planning, implementation and management activities, quality assurance, monitoring and improvement activities, data collection, processing, analysis and use in decision-making, efficient allocation and management of resources). At the same time, it was determined that there is no limitation from the legislative point of view for the application of the above-mentioned quality management models, as well as the approaches intended for their implementation by Azerbaijan's higher education institutions;
  5. A very weak positive correlation was determined between the financial income of higher education institutions and the results of the accreditation assessment for the year in which the accreditation assessment was carried out;

6. An analysis of the perception of the academic and administrative staff working in higher education institutions regarding the quality criteria of personnel training according to the requirements of the labor market was carried out. 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, including;
7. Regression analysis was conducted as a continuation of perception analysis. As a result of the ordinal regression analysis, it can be said that the level of agreement of men on quality criteria for teaching is 0.68 times lower than that of women. At the same time, it is observed that the level of agreement of the academic staff with the established quality criteria for teaching is 0.70 times lower than the level of agreement 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.

### **SUGGESTIONS**

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

1. The higher education institution should decide on the basis of certain criteria (internal and external) which model of the internal quality assurance system of personnel training according to the requirements of the labor market is more suitable for it. Thus, higher education institutions should determine the appropriate model with certain standards and criteria, taking into account the established external quality assurance criteria, the Strategic Development Program and the internal quality policy;
2. In order to have a single policy and approach to the internal quality assurance of personnel training suitable for the labor market by higher education institutions, appropriate amendments should be made to the legislation in the relevant direction, as well

- as methodological instructions should be prepared and presented to higher education institutions in a recommendatory manner by the relevant executive power body;
3. The implementation and monitoring mechanism of the strategic development program should be established, and at the same time, not only scientific research activity, but also issues such as efficient, high-quality organization of education and application of innovations in education, which are considered other obligations of the institution according to its charter, should be taken into account;
  4. Enterprises should spend most of their income on improving the educational infrastructure to prepare better quality personnel for the labor market and should continuously study the extent to which this affects the quality results of the enterprise;
  5. When determining the enterprise's internal quality assurance monitoring criteria, the enterprise's Strategic Development Program, Scientific Research Strategy, Internationalization Policy and Quality Assurance Policy, as well as institutional and program accreditation evaluation criteria for external quality assurance, should be taken as a basis. Thus, the evaluation criteria for the internal quality assurance of the institution should be comprehensive and include strategic development, organization of student-oriented teaching, organization of scientific research, internationalization performance, digitalization of the activities of the higher education institution, activity of academic and non-academic staff, increase of satisfaction of interested parties, changing quantity of the labor market. and should include aspects such as taking into account quality requirements, increasing the satisfaction of graduates with acquired competencies, taking into account inclusiveness in the educational infrastructure;
  6. The monitoring results of the higher education institution should be analyzed and, taking into account the results of the analysis, communication should be carried out with the relevant responsible structural units in the institution;
  7. Strategic planning and management related to ensuring the quality of personnel training in accordance with the requirements of the

labor market of the higher education institution, monitoring and increasing the employment status of graduates, as well as meeting the requirements of lifelong learning of graduates, organizing education in accordance with the requirements of the labor market, increasing the level of professionalism of the academic staff and professional personnel must act in the direction of involvement in the educational process, the establishment of an effective internal monitoring system and the determination of monitoring criteria;

8. In order to train personnel in accordance with the requirements of the labor market in higher education institutions, activities should be carried out in the directions of quality assurance mentioned below (more detailed information about each of the directions and their tools is mentioned in the study).
  - a. Strategic development;
  - b. Organization of education according to the requirements of the labor market;
  - c. Assessment and development of staff professionalism;
  - d. Quality monitoring and assurance.

**The main content of the dissertation work was published in the following scientific works of the author:**

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.
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education of Azerbaijan // Quality in Higher Education. -2023  
<https://doi.org/10.1080/13538322.2022.2100606>

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The defense will be held on 20 September 2024 at 11:00 o'clock at a meeting of the Dissertation council BED 1.10 of Supreme Attestation Commission under the President of the Republic of Azerbaijan operating at Institute of Economics operating under the Ministry of Science and Education of the Republic of Azerbaijan

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The dissertation can be found in the library of the Institute of Economics of the Ministry of Science and Education of the Republic of Azerbaijan.

Electronic versions of the dissertation and its abstract are available on the official website (<https://economics.org.az/>) of the Institute of Economics of the Ministry of Science and Education of the Republic of Azerbaijan

The abstract was sent to the necessary addresses on 21 June 2024.

Signed for print: 21.06.2024  
Paper format: 60x84  
Volume: 39185 characters  
Number of hard copies: 20 pcs