



**PROBLEMS OF SERVICE QUALITY MANAGEMENT IN THE FIELD OF  
HIGHER EDUCATION OF THE ECONOMY OF THE RUSSIAN  
FEDERATION AND DIRECTIONS FOR THEIR SOLUTION**

***PROBLEMAS DE GESTÃO DA QUALIDADE DE SERVIÇO NO CAMPO  
DO ENSINO SUPERIOR DA ECONOMIA DA FEDERAÇÃO RUSSA E  
ORIENTAÇÕES PARA SUA SOLUÇÃO***

**DMITRY RADUSHINSKY**

Saint Petersburg Mining University – Russia

<https://orcid.org/0000-0001-9967-8628>

E-mail: [d.radoushinsky@gmail.com](mailto:d.radoushinsky@gmail.com)

**DINARA KREMCHEEVA**

Saint Petersburg Mining University – Russia

<https://orcid.org/0000-0001-5618-7343>

E-mail: [kremcheeva\\_DA@pers.spmi.ru](mailto:kremcheeva_DA@pers.spmi.ru)

**EKATERINA SMIRNOVA**

Saint Petersburg Mining University – Russia

<https://orcid.org/0000-0003-4449-0825>

E-mail: [smirnova\\_EE@pers.spmi.ru](mailto:smirnova_EE@pers.spmi.ru)

**ABSTRACT**

**Objective:** The article aims at systematizing problems in service quality management in the field of higher education to increase the efficiency of socio-economic development in the Russian Federation.

**Methods:** The authors have conducted a critical analysis of the existing approaches to define the quality management of educational services, including one-factor correlation-regression analysis.

**Results:** The content of service quality management in the field of higher education has been clarified. It is a purposeful activity of universities, other educational organizations, and socio-economic structures of state regulation in the field of analysis, planning, organization, motivation, control, and evaluation of the effective provision of educational services. This activity should ensure the maximum compliance of the knowledge and competency of service users with the current and future requirements of industry-specific labor markets, as well as achieve the long-term and sustainable growth of labor productivity in the national economy as a whole. The authors also systematize the main institutional, organizational, personnel, financial, analytical, and methodological issues of service quality management in the field of higher education in the Russian Federation.





**Conclusion:** Several recommendations for a systematic solution to the identified problems are presented.

**Keywords:** Quality of educational services; Financing of higher education; Labor market; Staff turnover; Russia.

## RESUMO

**Objetivo:** O artigo visa sistematizar problemas na gestão da qualidade dos serviços no campo do ensino superior para aumentar a eficiência do desenvolvimento sócio-econômico na Federação Russa.

**Métodos:** Os autores realizaram uma análise crítica das abordagens existentes para definir a gestão da qualidade dos serviços educacionais, incluindo uma análise de correlação-regressão de um fator.

**Resultados:** O conteúdo da gestão da qualidade dos serviços no campo do ensino superior foi esclarecido. É uma atividade proposital das universidades, outras organizações educacionais e estruturas socioeconômicas de regulamentação estatal no campo da análise, planejamento, organização, motivação, controle e avaliação da prestação efetiva de serviços educacionais. Esta atividade deve assegurar a máxima conformidade do conhecimento e competência dos usuários de serviços com as exigências atuais e futuras dos mercados de trabalho específicos da indústria, bem como alcançar o crescimento sustentável e de longo prazo da produtividade do trabalho na economia nacional como um todo. Os autores também sistematizam as principais questões institucionais, organizacionais, de pessoal, financeiras, analíticas e metodológicas da gestão da qualidade dos serviços no campo da educação superior na Federação Russa.

**Conclusão:** Várias recomendações para uma solução sistemática para os problemas identificados são apresentadas.

**Palavras-chave:** Qualidade dos serviços educacionais; Financiamento do ensino superior; Mercado de trabalho; Rotatividade do pessoal; Rússia.

## 1 INTRODUCTION

At the present stage, the socio-economic efficiency of state development directly depends on quality management systems of educational services, especially in the higher education sector.

This article aims at systematizing problems in the quality management of services in the field of higher education in Russia and developing recommendations for solving the most urgent challenges. The main objectives of the article are as follows:





- To clarify the concept of service quality management in the field of higher education;
- To systematize the main challenges of service quality management in the field of higher education in the Russian Federation;
- To develop recommendations for solving some problems of service quality management in the field of higher education in the Russian economy.

## 2 MATERIALS AND METHODS

We used such research methods as analysis, synthesis, induction, and deduction. In addition, we conducted a critical analysis of the existing approaches to determining the quality management of educational services and used the method for studying time series, one-factor correlation-regression analysis, and the graphical method for interpreting the economic and statistical information under study.

Within the framework of this study, we considered the information presented in articles and monographs on the quality management of educational services in the field of higher education, as well as data from the Federal State Statistics Service of the Russian Federation and the World Bank.

## 3 RESULTS

The efficiency and competitiveness of the national economy as a whole depend on the quality of educational services in universities (Kremcheeva & Kremcheev, 2019; Sytko & Makhov, 2021). In particular, M. Klectovics and E. Eckert (2019, p. 37) substantiate a relationship between the quality of such services and the sustainability of macroeconomic development. R. Clark and R. Mayer (2020, p. 115) reveal a correlation between the quality of higher education and the active formation and development of the digital economy. J. Kavanaugh (2018, p. 85) dwells on how to ensure the quality of such services in the theory of games. Special literature also studies the impact of the services provided





by higher education organizations on the competitiveness of national and regional economic systems (Cerezo Sánchez, 2017).

The issue of improving the quality of higher education has been raised at the highest level of state management of socio-economic processes in the Russian Federation, in particular in the Presidential Address to the Federal Assembly in 2019 (President of the Russian Federation, 2019). Ensuring a high level of education is a key goal of improving the educational process within the framework of the Federal Law “On Education” (State Duma of the Federal Assembly of the Russian Federation, 2012, Art. 2).

According to A.B. Krage (2021, p. 17), the quality of higher education is a set of competencies, skills, and abilities acquired by specialists at universities and at the highest level of colleges maximizing the cost of labor in industry-specific labor markets. Under the conditions of a post-industrial economy, E. Ries (2017, p. 21) understands the quality of higher education as the comprehensive knowledge of specialists in various fields of universal and industry-specific digital technologies and systems.

In our opinion, service quality management in the field of higher education is a purposeful activity of universities, other educational organizations, and socio-economic structures of state regulation in the field of analysis, planning, organization, motivation, control, and evaluation of the effective provision of educational services focused on ensuring maximum compliance of the knowledge and competency of service users with the current and future requirements of industry-specific labor markets, as well as achieving the long-term and sustainable growth of labor productivity in the national economy as a whole (Leontyuk et al., 2019; Semenov & Mikhailov, 2017).

Currently, the development of processes for managing the quality of services in the field of higher education in the socio-economic system of the Russian Federation is associated with several problems. The main challenges are as follows:

1. Institutional problems associated with the imperfection of formal and informal institutions that affect the quality of services in the field of higher education, and their misbalance with other Russian institutions, namely:

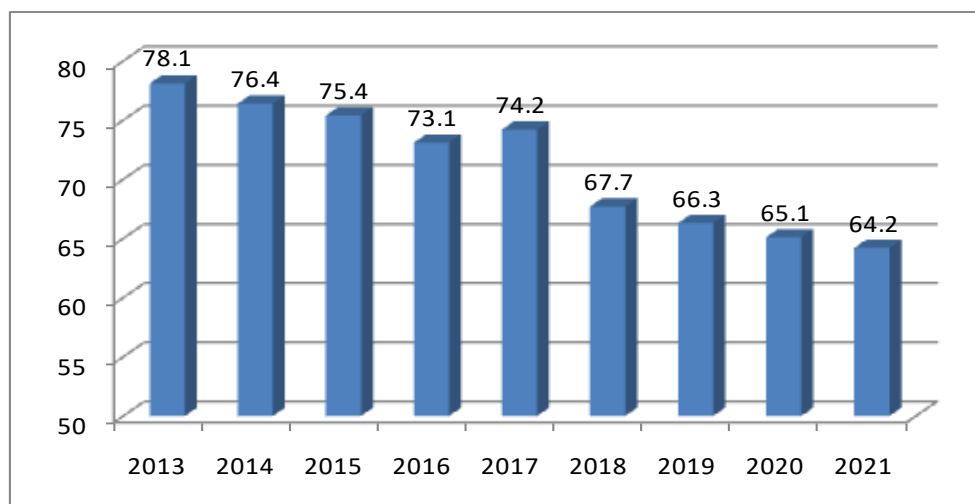




1.1. The legal acts regulating service quality management in the field of higher education in the Russian Federation are quite declarative. For example, the Program “Digital Economy of the Russian Federation” (a key legislative act regulating the digitalization of the national economy and the social sphere) does not dwell on the digitalization of the national higher education system (Government of the Russian Federation, 2017). The provisions of special legislation regulating the development of the innovation infrastructure in the national universities are also declarative (Government of the Russian Federation, 2019; Umanskii et al., 2022).

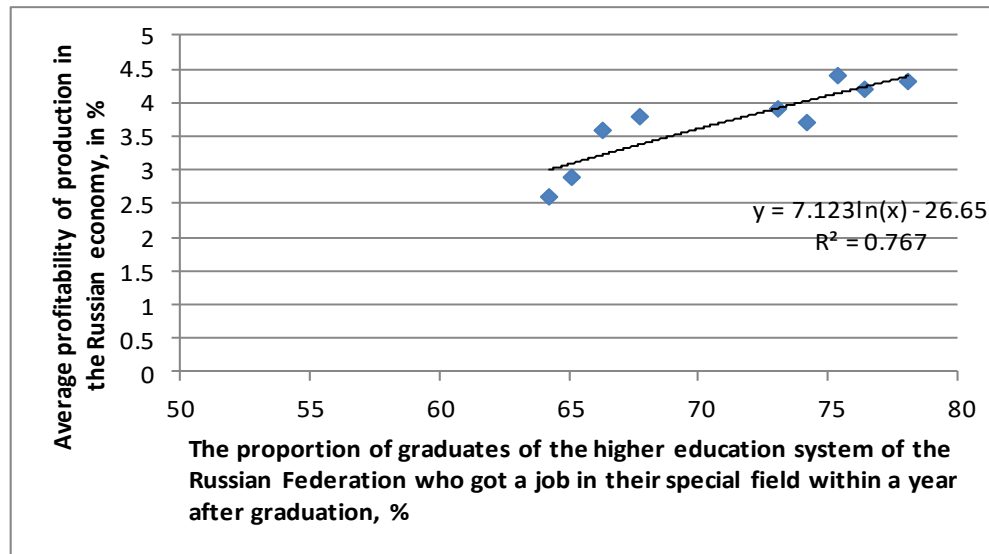
1.2. The insufficient efficiency and effectiveness of state control over the processes ensuring the quality of educational services in the higher education system of the Russian Federation. Thus, E.I. Varchenko (2013, p. 473) mentions high levels of formalism and irrational bureaucracy in this sphere.

1.3. The insufficient compliance of educational services with the Russian labor market. According to Figure 1, the share of graduates of the higher education system of the Russian Federation who got a job in their special field within a year after graduation decreased by 13.9% in 2013-2021 (Kremcheeva & Kremcheev, 2018; Tsvetkov et al., 2019). In general, this indicates a lack of practical orientation of national education.



**Figure 1.** The proportion of graduates of the higher education system of the Russian Federation who got a job in their special field within a year after graduation, in % (Kudrin et al., 2022, p. 157)

According to Figure 2, the financial and economic efficiency of the development of the Russian national economy depends on long-term employment in a special field.



**Figure 2.** The economic and statistical function demonstrating the influence of the long-term employment of graduates of universities of the Russian Federation in a special field on the average profitability of production in the Russian economy in 2013-2021 (based on the information contained in Kudrin et al., 2022, p. 157; World Annual Report, 2022, p.239)

2. Organizational and personnel problems associated with the poor management of universities in the Russian Federation, including certain difficulties in the field of personnel management. The main problems of this type are as follows:

2.1. The insufficient strategic flexibility of higher education management systems in the socio-economic system of the Russian Federation. F.R. Rakhimov (2021, p. 442) studies this topic.

2.2. Not intensive use of advanced technologies and project management systems for the provision of educational services in national organizations of the higher education system (Overchenko et al., 2017; Sveshnikova et al., 2022).

2.3. The growing level of staff turnover in the higher education system of the Russian Federation, which ultimately has a negative impact on the quality of educational services. According to Figure 3, this indicator increased from 0.14 to 0.185 or 1.32 times in 2013-2021 (Ponomarenko et al., 2019).



Figure 3. The dynamics of the average staff turnover rate in the field of higher education in the Russian Federation (Federal State Statistics Service, 2020, p. 419)

In our opinion, the inertial growth of staff turnover in the higher education system of the Russian Federation is conditioned by such reasons as the insufficient remuneration for training university staff, the irrationally high degree of wage differentiation between different categories of personnel in national universities, in particular, between the administration and young teachers without academic degrees and titles, a relatively high level of the irrational bureaucracy of pedagogical activity, etc. (Gromyka & Gogolinskiy, 2022; Potapov & Kondratev, 2020).

3. Financial problems associated with an insufficient level of transparency and low efficiency of the financial and investment activities of many universities of the Russian Federation, which negatively affects the provision of educational services. The main problems of this type are as follows:

3.1. The low level of information transparency in the distribution of financial resources within the higher education system of the Russian Federation and relatively high corruption risks in this area (Mikhalchenkova, 2017, p. 59).

3.2. The insufficient use of advanced financial technologies (for example, lean production) by most universities of the national economic system of the Russian Federation (Gromyka & Gogolinskiy, 2022; Kudrin et al., 2022, p. 43; Sveshnikova et al., 2022).

3.3. The ineffective development of such an instrument for financing the provision of educational services to citizens as educational loans (however, there are loan programs in leading Russian credit organizations, for example, Sberbank PJSC, VTB PJSC, etc.).

4. Analytical and methodological problems of service quality management in the field of higher education in the Russian Federation, including:

4.1. The insufficient development of tools for the quantitative assessment of educational services provided by the higher education system of the Russian Federation.

4.2. The imperfection of methods for assessing the impact of educational services on the financial efficiency of educational institutions in the field of higher education.





4.3. The backwardness of tools and technologies for the quantitative analysis of the impact of higher education on the effective functioning and development of the national socio-economic system as a whole.

## 4 DISCUSSION

In our opinion, the systematic solution to the above-mentioned problems can be achieved through:

- Implementing the KPI system into the higher education system of the Russian Federation, the key performance indicators for the activities of various employees determining the final level of their wages;

- Increasing the level of democracy in the management of higher education, ensuring wider participation of low-level representatives of such structures in the development and adoption of managerial decisions, including various aspects of improving the quality of educational services;

- More active integration of the higher education system into the structure of regional industrial and other clusters ensuring practical orientation in the provision of educational services (more opportunities for undergraduate and postgraduate students to have internships at enterprises of such clusters, the latest operational staff development programs, other forms of additional professional education, joint implementation of research programs with organizations that are part of regional and municipal intersectoral clusters, etc.);

- The growing digitalization of educational services in the field of higher education and the development of e-learning systems and technologies (virtual educational services);

- The introduction of a special rule providing benefits for credit institutions into the tax legislation of the Russian Federation (for example, in terms of calculating the taxable base for income tax) in proportion to the volumes of educational loans issued by the latter;

- Building and developing partnerships between universities of the Russian Federation and educational organizations from political alliances (SCO, BRICS, EAEU),







which seems to be quite relevant in the context of failing relationships with US and EU universities in 2022;

– Ensuring transparency in the financial and economic activities of the higher education system of the Russian Federation, i.e. reducing the risks of corruption and other abuses in the management of such educational institutions, which should have a positive impact on the quality of educational services.

## 5 CONCLUSION

Thus, improving the quality of educational services in the field of higher education within the socio-economic system of the Russian Federation is a complex problem. Its solution requires several financial, investment, personnel, organizational, and other measures. In addition, it is recommended to develop and improve quantitative tools for assessing the level of certain educational services of the higher education system, ensure the wider use of economic and statistical methods and models in this area, and conduct a comprehensive study of the demand for industry-specific labor markets for certain professions and specialties within the framework of Bachelor's, Master's, and additional education programs of Russian universities.

## REFERENCES

Cerezo Sánchez, D. (2017). An optimal ICO mechanism. Calctopia. <http://dx.doi.org/10.2139/ssrn.3040343>

Clark, R., & Mayer, R. (2020). E-learning and the science of the instruction. 6th ed. New York: Wiley.

Federal State Statistics Service. (2020). Rossiiskii statisticheskii ezhegodnik [The Russian statistical yearbook]. Moscow: Rosstat.

Government of the Russian Federation. (2017). Rasporyazheniye Pravitel'stva Rossiyskoy Federatsii ot 28 iyulya 2017 goda No. 1632-r "Ob utverzhdenii programmy Tsifrovaya ekonomika Rossiyskoy Federatsii" [Resolution of the Government of the





Russian Federation of July 28, 2017 No. 1632-r “On approval of the digital economy of the Russian Federation”] (as amended and enlarged on August 12, 2022)]. *Sobranie Zakonodatel'stva Rossiiskoi Federatsii* [SZ RF] [Collection of Legislation of the RF] 07.08.2017, No. 32, Item 5138.

Government of the Russian Federation. (2019). *Postanovlenie Pravitelstva Rossiiskoi Federatsii ot 9 aprelya 2010 g. no. 219 “O gosudarstvennoi podderzhke razvitiya innovatsionnoi infrastruktury v federalnykh obrazovatelnykh uchrezhdeniyakh vysshego professionalnogo obrazovaniya”* [Decree of the Government of the Russian Federation of April 9, 2010 No. 219 “On state support for the development of innovative infrastructure in Federal educational institutions of higher professional education”]. Retrieved from <http://government.ru/docs/all/72013/>

Gromyka, D.S., & Gogolinskiy, K.V. (2022). Method of state and residual resource assessment of excavator bucket tooth caps. *Russian Journal of Nondestructive Testing*, 58, 381-390. <https://doi.org/10.1134/S1061830922050035>

Kavanaugh, J. (2018). *Consulting essentials*. New York: Lioncrest Publishing, 432 p.

Klectovics, M., & Eckert, E. (2019). *Business practices in higher education*. New York: Routledge, 258 p.

Krage, A.B. (2021). *Professional education*. New York, 346 p.

Kremcheeva, D.A., & Kremcheev, E.A. (2018). Use of a quality management system at the iron and steel enterprise. *Journal of Mechanical Engineering Research and Developments*, 41(1), 151-155.

Kremcheeva, D.A., & Kremcheev, E.A. (2019). Implementation of the six sigma method in the educational process. *Journal of Physics: Conference Series*, 1384, 012022. <http://dx.doi.org/10.1088/1742-6596/1384/1/012022>

Kudrin, A. L., Mau, V.A., Radygin, A. D., & Sinelnikov-Murylev, S. G. (Eds.). (2022). *Rossiyskaya ekonomika v 2021 godu. Tendentsii i perspektivy* [Russian economy in 2021. Trends and outlooks]. Moscow: Izd-vo In-ta Gaydara.

Leontyuk, S.M., Vinogradova, A.A., & Silivanov, M.O. (2019). Fundamentals of ISO 9001:2015. *Journal of Physics: Conference Series*, 1384(1), 012068. <https://doi.org/10.1088/1742-6596/1384/1/012068>

Mikhalchenkova, N.A. (2017). *Vysshaya shkola i gosudarstvo: Globalnoe i natsionalnoe izmerenie politiki* [Higher education and state: Global and national aspects of politics]. Saint Petersburg: Iz-vo SPbGU, 328 p.

Overchenko, M.N., Marinin, M.A., & Moser, S.P. (2017). Improving the quality of training of mining engineers based on cooperation between St. Petersburg Mining University and





Orica Company. Journal of Mining Institute, 228, 681-687.  
<https://doi.org/10.25515/pmi.2017.6.681>

Ponomarenko, T.V., Marinina, O.A., & Nevskaya, M.A. (2019). Innovative learning methods in technical universities: The possibility of forming interdisciplinary competencies *Espacios*, 40(41), 16.

Potapov, A.I., & Kondratev, A.V. (2020). Non-destructive testing of multilayer medium by the method of velocity of elastic waves hodograph. *Journal of Mining institute*, 3, 348-356.  
<http://dx.doi.org/10.31897/PMI.2020.3.348>

President of the Russian Federation. (2019, February 20). Poslanie Prezidenta Federalnomu Sobraniyu [The address of the President of the Russian Federation to the Federal Assembly]. Retrieved from <http://www.kremlin.ru/events/president/news/59863>

Rakhimov, F.R. (2021). Osnovnye voprosy dostizheniya effektivnosti v sisteme vysshego obrazovaniya [Key issues of achieving efficiency in the higher education system]. *Molodoi uchenyi*, 48(390), 440-443.

Ries, E. (2017). *The startup way*. New York: Currency publishers, 400 p.

Semenov, V.P., & Mikhailov, Yu.I. (2017). Challenges and trends of quality management in the context of industrial and mineral resources economy. *Journal of Mining Institute*, 226, 497-502. <https://doi.org/10.25515/pmi.2017.4.497>

State Duma of the Federal Assembly of the Russian Federation. (2012). Federalnyi Zakon ot 29.12.2012 No. 273-FZ "Ob obrazovanii v Rossiiskoi Federatsii" [Federal Law of December 29, 2012 No. 273-FZ "On education in the Russian Federation"] (as amended and enlarged on December 12, 2022). *Sobranie Zakonodatel'stva Rossiiskoi Federatsii [SZ RF]* [Collection of Legislation of the RF] 31.12.2012, No. 53 (Part I), Item 7598.

Sveshnikova, S.A., Skorniyakova, E.R., Troitskaya, M.A., & Rogova, I.S. (2022). Development of engineering students' motivation and independent learning skills. *European Journal of Contemporary Education*, 11(2), 555-569.  
<https://doi.org/10.13187/ejced.2022.2.555>

Sytko, I.I., & Makhov, V.E. (2021). Study of dynamic properties of measuring equipment at the design stage. *Journal of Physics: Conference Series*, 1728, 012020.  
<http://dx.doi.org/10.1088/1742-6596/1728/1/012020>

Tcvetkov, P.S., Cherepovitsyn, A.E., & Fedoseev, S.V. (2019). Public perception of carbon capture and storage: A state-of-the-art overview. *Heliyon*, 5, e02845.  
<https://doi.org/10.1016/j.heliyon.2019.e02845>





Umanskii, A., Gogolinskiy, K.V., Syasko, V., & Golev, A. (2022). Modification of the leeb impact device for measuring hardness by the dynamic instrumented indentation method. *Inventions*, 7(1), 29. <https://doi.org/10.3390/inventions7010029>

Varchenko, E.I. (2013.). Upravlenie kachestvom obrazovaniya v obrazovatelnom uchrezhdenii [The quality management of education in specific institutions]. *Molodoi uchenyi*, 3(50), 471-474.

World Annual Report (2022). N.Y. 754 p.

