#### Anastasia A. Sozinova<sup>1</sup>

**Article info:** Received 18.08.2022. Accepted 03.07.2023.

UDC - 005.6 DOI - 10.24874/IJQR17.03-17



# MARKETING APPROACH TO QUALITY MANAGEMENT DURING THE REORGANISATION OF UNIVERSITY UNDER THE IMPACT OF COMPETITION AND THE INFLOW OF TRANSNATIONAL CAPITAL

Abstract: The goal of this paper is to develop a marketing approach during the reorganisation of a university under the impact of competition and the inflow of transnational capital and to test it on the example of Russia's national research universities. For this research, the top 10 universities of Russia are selected. They are included in THE World University Rankings 2021 (they performed the reorganization and are national research universities). T.L. Saaty's hierarchy process, regression analysis, and correlation analysis are used. The approbation of the given recommendations on the example of national research universities of Russia in 2021 shows that the level of favourability of the impact of competition and the inflow of transnational capital on marketing management of quality during the reorganisation is moderate or low. Recommendations for its increase are offered. A marketing approach to quality management during the reorganisation of a university under the impact of competition and the inflow of transnational capital is developed. The approach includes, first, methodological recommendations to evaluate the level of favourability of the impact of competition and the inflow of transnational capital on marketing management of quality during the reorganisation of universities. Second, landmarks of the improvement of marketing results of the increase of quality of Russian universities during the reorganisation based on managing the factors of competition and the inflow of transnational capital.

**Keywords:** Economic Empowerment, Economic Transformation, Human Settlements (Regions), Economic Growth, Educational Environment, Educational Governance, Inclusive Innovation, Higher Education, Marketing, Reorganisation of Universities, Competition, Inflow of Transnational Capital, Quality, Quality Management.

## 1. Introduction

The formation of market relations in the Russian system of higher education changed the conditions of the Russian universities'' functioning. To ensure the high quality of higher education in the new market environment, a large-scale reorganisation of Russian universities was conducted in recent years (2013-2020). It stimulated their enlargement and accumulation of the larger

<sup>&</sup>lt;sup>1</sup> Corresponding author: Anastasia A. Sozinova Email: <u>aa\_sozinova@vyatsu.ru</u>

volume of resources.

The problem consists in the contradiction of the process of reorganisation of universities in Russia from the positions of quality. On the one hand, reorganisation is to raise the independence financial of Russian universities and stimulate the growth of their entrepreneurial, innovative, and international activity. On the other hand, the Programme for strategic academic leadership, which was adopted on July 29, 2020, envisages largescale financial support of Russian universities - primarily those that performed reorganisation (Ministry of Education and Science of the Russian Federation, 2021b).

This contradiction, caused by the preserving regulatory approach to managing the university's reorganisation, reduced the effectiveness of managing the quality during the reorganisation, since, despite the serious changes in the structure and activities of universities, their dependence on government subsidies and government order remains. This reduces their adaptation to the influence of competition and the inflow of transnational capital.

To solve the problem, there's a necessity for a transfer to a new - marketing - approach to quality management during the reorganisation of the university. It will ensure the required flexibility and competitiveness of universities under the conditions of competition and them using the capability of the inflow of transnational capital for increasing the financial independence.

The objective of this paper is to develop a marketing approach during the reorganisation of a university under the impact of competition and the inflow of transnational capital and to test it on the example of national research universities of Russia.

# 2. Literature Review

Certain marketing tools of managing the universities' development are offered in the

works of Alsharari (2019), Mahajan and Golahit (2019), Sahibzada et al. (2019), and Vel et al. (2019), The specifics of the functioning and development of modern universities under the impact of competition and the inflow of transnational capital are studied in the works of Fokdal et al. (2020). Swanson and Swanson (2019), Tan et al. (2018), and Watson and McGowan (2019), The issues of reorganisation of universities are considered in the works of Lysova et al. (2020), Popkova et al. (2021), Saveleva et al. (2018), Savelyeva et al. (2019), Savelyeva and Timkina (2021), and Sozinova (2018). The issues of quality management in the activities of modern universities are studied in the works of Alharbi et al. (2020), Chayanon et al. (2020), Dewi et al. (2021), Fahrurrozi et al. (2021), Karnai et al. (2021), and Miao et al. (2021), Robinson-Garcia et al (2019).

However, the marketing approach to quality management during the reorganisation of universities under the impact of competition and the inflow of transnational capital is not yet formed, which requires the continuation of scientific research aimed at its development.

# 3. Materials and methodology

In this paper, the research is performed on the example of the top 10 universities of Russia that are included in the World University Rankings 2021 (THE, 2021) and which performed reorganisation and are national research universities, according to the list of the National Research University "Higher School of Economics" (2021). T.L. Saaty's hierarchy process is used to determine the level of favourability of the impact of competition and the inflow of transnational capital on marketing management of quality during the reorganisation of universities. Weight coefficients are calculated with the help of correlation analysis.

Regression analysis is used to calculate the dependence of the marketing results for quality - educational ranking, research ranking, citation ranking, profitability ranking. ranking and of the internationalisation of activities, which are calculated by THE (2021) and presented in the World University Rankings 2021 - on the factors of competition and the inflow of transnational capital, according to the information and analytical materials on the results of the monitoring of the effectiveness of activities of educational organisation of higher education in 2019. (Ministry of Education and Science of the Russian Federation, 2021a):

- Share of foreign students (except for the CIS member states), at the bachelor's, specialist's, and master's programmes, in the total number of students (given contingent);

- Share of foreign academic staff in the total number of academic staff;

- Assets received by the educational organisation from performing R&D from foreign nationals and foreign legal entities;

- Assets from the educational activities, received by the educational organisation from foreign nationals and foreign legal entities.

The research data are presented in Tables 1 and 2.

As the analysis of the methodological framework of the formation of the studied ranking World University Rankings 2021 (Times Higher Education, 2022) shows, each estimated indicator of the quality of universities is based on a range of components. It is possible to note that these components, in their turn, are assessed through certain parameters of development. The description of the character, level of significance and manifestation of these parameters of the components of the indicators of universities' quality may facilitate understanding of the their dependence on the influence of the designated factors of competition and inflow

of transnational capital, which impact the subjects of higher education in the process of reorganisation.

An important indicator of the quality of higher education at universities is the ranking Teaching. According to the results of the analysis of the methodology of studying the level of the given indicators (Times Higher Education, 2022), the ranking Teaching characterises the achievements of a university in the sphere of reputation (this parameter is the most significant one in this sphere); the ratio of the number of PhDs to the number of the academic staff of a university; the ratio of the number of personnel of а higher educational establishment to the number of its students.

A high significance of a certain approach in the educational ranking is an important precondition for the marketing promotion of universities and the development and implementation of new educational and research programmes. Analysis of the scientific materials of Telsi and Kantur (2014) allows stating that reputation management is a non-material asset of the strategic level and a dynamic process, which requires the use of effective methods of its increase; the centre of its management and professionalism of university managers define the authority of the university at the internal level (students, personnel) and external level (employers, partners, future students, other interested parties). Emphasis on the characteristics of this phenomenon (reputation) in the context of the resource and process orientation is connected with the fact that this process of management forms the value of the non-material asset of a university.

Analysis of the approaches that are given in the provisions of Lafuente-Ruiz-de-Sabando et al. (2018) and Telsi and Kantur (2014) revealed a model of the system of managing a university's reputation, which is the component of the educational ranking (element of the university's quality). Its structural components are as follows: 1) Category of persons who are interested in the university's reputation: applicants, undergraduates; parents and relatives of applicants; educational bodies at the level of the government, regions and territories; other universities; personnel of the university; mass media; head hunters; employers; jobs seekers in the university. The orientations of this category influence the functioning and formation of subjects, objects and mechanisms for managing the university's reputation;

2) Subjects of managing the university's reputation include bodies of legislative and executive power at the level of government, regions and territories; subjects of the labour market; educational organisations at the level of government, regions and territories; administration of the university. Using the system of mechanisms, these subjects manage the objects that influence the university's reputation;

Mechanisms 3) of formation and improvement of the university's reputation include the development of a strategy for managing the establishment; an increase in the technologies of managing the university's activities (development and implementation of new approaches); increase in the effectiveness of the system of managing the quality of university (development of innovations-oriented approaches to managing the quality of this establishment); development of professional competencies of the university's academic staff; increase in ties with employers and development of the mechanisms of stimulating the employment of graduates; formation of the for environment self-development of students' competitiveness;

4) Objects of management, which influence the level of a university's reputation, include as follows: the reputation of the university's rector; quality of the university's educational services; level of employment of university's graduates and the character of ties with employers, categories and levels of economic, technological, innovative and HR development of the latter. Subjects, mechanisms and objects create the socioeconomic effectiveness of the system of formation of a university's reputation;

5) Socio-economic effectiveness of the system of formation of the reputation of a higher educational establishment includes an increase in the effectiveness of the higher professional education; an increase in the university's positions in the system of higher professional education through high indicators of the university and academic staff's ranking; improvement in the financial state of the university, which can allow for financing of the education of talented students and provision of development of new directions of scientific and practical research that influence a general level of higher of а educational quality establishment; increase in the quality of training of students through the development and implementation of new programmes, methodological materials and approaches to teaching and digitalization.

In the context of the increase in the level of reputation of a higher educational establishment, it is possible to consider the optimisation offers that are formulated in Lafuente-Ruiz-de-Sabando et al. (2018):

- Management of the perception of persons who are interested in the university's reputation. This direction may envisage transformations of the level of development of the objects of management, namely; the appointment of a rector with an impeccable reputation; implementation of the system of increasing the quality of educational services of the university through the use of better examples of foreign experience and wide implementation of digitalization (example: formation of the educational programme of MIPT (one of the considered universities Plotnikova, E. V., & Ephremova, M. O. (2019)), which, after the formation of most of the educational programmes based on the modern information and communication technologies, was able to adapt the use of sustainable development technologies in biomedicine, genetics and AI, which will allow increasing the scale of R&D (Kommersant, 2022); development of effective mechanisms of employment based on continuous communication with the best employers;

- Management of the university's reputation based on continuous communication with persons who are interested in its development, to determine the directions for improvement. Assessment of the directions for development may concern the directions for reputational characteristics of the university, given by interested parties in the context of various cultural, social and age groups.

The presented model of the system of managing the university's reputation is based on the generalising indicator of competitiveness and classical elements of management, which include planning, motivation, organisation and control over the indicators of the studied phenomenon. Formation of the marketing approach to their management can be performed through the use of an innovative model, with modern components and directions, in particular in the period of reorganisation of the higher educational establishment.

We think that one of the key aspects in managing the reputation of a higher educational establishment is the creation of new structures since neither of the previously formed executive structures of Russian universities (including the analysed ones) is fit for management in the active information and turbulent period.

We deem it necessary to create a special information and communication bureau, which, unlike a public centre and other internal and external structures, involved in the promotion of these establishments, will purposefully produce creative constructions, which will, in their turn, form the contents of information messages and manage all reputational risks. Active opposition and blocking of external information may bring serious risks to the long-term formation of the university's image.

The information and communication bureau will perform the following functions:

- Creation of a consolidated information platform of the university, which will create all information flows to implement the information policy;

- Creation of an information ideology, as a mechanism of implementation of creative ideas;

- Formation of new business communications based on the university's economic platform, with the participation of representatives of business, including employers and subjects of the economy who are interested in certain research works at the level of the university;

- Provision and management of the information presence in the economic environment;

- Attraction for the cooperation of experienced specialists in communications, as well as postgraduates and successful undergraduates, who will form a core of the increased loyalty within the higher educational establishment;

- Promotion of all scientific achievements of the university with the transformation of them from the technically prestigious level into unique scientific products of international influence (professional management of technology transfer);

- Development of a roadmap, which would contain a consistent plan of implementing the information policy;

- Determining the strategy and tactics of the information policy given information flows and risks, with a clear designation of responsibility centres;

- Development of own creative constructions, which will form the contents of information messages and manage the global changes of the internal and external communicative environment;

- Development of requirements on the stylistic framework of the project;

Sozinova, Marketing approach to quality management during the reorganisation of university under the impact of competition and the inflow of transnational capital

-Management of the promotion of the created content;

- Protection of the created content from information leaks.

It's worth noting the characteristics of such indicator of the quality of higher education of universities as the ranking Research. Analysis of the materials of Times Higher Education (2022) showed that the ranking Research characterises the totality of the parameters' values:

- Reputation of research work of university within the country and at the international level (the key component);

- Indicator of efficiency of the university's research work, i.e., revenues from research work/time spent for research work ratio. The ranking of this indicator identifies the level of organisation of this category of works in the context of this indicator of effectiveness. According to Mohamed Hashim et al. (2022), an additional element of provision of efficiency of a university's research work is the facts of implementation of digitalization and innovative technologies, which stimulate the growth of the quality of received intellectual products (services) and allow raising their market value and reducing time spend for them;

- Indicator of revenues from university's research work. This indicator, like the indicator of the efficiency of research works of the university, has an equal position in the formation of the ranking Research. Its value is defined by the level of implementing the technology transfer in the university. According to Nikolaev and Kirillov (2022) and Siberian Federal University (2022), Russian universities, at the current stage of development, face the problems of the absence of competencies in technology transfer (personnel problems and experience); insufficient level of positioning possibilities in the sphere of of commercialisation of technologies, which are applied in various spheres of the economy (absence of own road maps of development of technology transfer); absence of the effective market of technology transfer in Russia, which would ensure motivation and high quality of universities' R&D.

Let us consider the indicator of the quality of higher education of universities – the ranking Citations. According to Times Higher Education (2022), this indicator characterises the contribution of the studied universities to the dissemination of the totality of knowledge in various subject spheres. St. Petersburg Mining University and Peter the Great St. Petersburg Polytechnic University have the lead positions in the ranking Citations: 95.1 and 90, accordingly (Table 1).

Let us consider the characteristics of the indicator of the quality of higher education of universities – the ranking Industry income. Evaluation of the methodology of this ranking (Times Higher Education, 2022) shows that this indicator defines a university's readiness to influence the innovative and technological development of industry and consulting on the subjects of the economy within sectorial directions. Assessment of the ranking Industry income helps to determine the level of research revenues at the level of the considered universities. In this sphere, the highest ranking is observed with MIPT (100 points), MEPhI (100 points) and ITMO University (90.1 points) (Table 1).

Another estimated indicator of the quality of higher education of universities is the ranking International outlook. This indicator is used to assess the potential of universities in the attraction of foreign lecturers, postgraduates and students, which is the indicator of internationalization of the considered higher educational establishments. The lead positions in this ranking among the assessed universities belong to Tomsk State University (73.2 points); MISiS (67.9 points); MEPhI (66.3 points); ITMO University (63.4 points) (Table 1).

Table 1. Russian national research universities marketing results for quarty in 2021.						
University	Educational ranking (Teaching)	Research ranking (Research )	Citation ranking (Citations)	Profitability ranking (Industry income)	Ranking of the internationalisation of activities (International outlook)	
Moscow Institute of Physics and Technology (MIPT)	53.4	45.3	49.9	100.0	60.4	
HSE University	34.1	41.4	68.4	59.5	44.5	
Peter the Great St Petersburg Polytechnic University	27.1	16.9	90.0	74.8	56.1	
Bauman Moscow State Technical University	32.5	17.1	71.7	69.9	29.4	
National Research Nuclear University MEPhI	40.5	40.4	26.9	100.0	66.3	
Saint-Petersburg Mining University	20.7	10.9	95.1	74.3	29.1	
ITMO University	30.0	32.2	42.7	90.1	63.4	
Tomsk State University	42.6	36.3	26.1	55.9	73.2	
National University of Science and Technology (MISiS)	25.8	19.1	31.9	87.8	67.9	
Novosibirsk State University	42.6	33.6	22.9	34.9	44.1	

Table 1. Russian national research universities' marketing results for quality in 2021.

Source: THE (2021).

Based on the materials that characterise the state of the factors of competition and inflow of transnational capital within the functioning of the ten considered Russian universities (Table 2), it is possible to note the following:

- MEPhI demonstrates the highest level of attraction of foreign students and academic staff; accordingly, the share of these categories of persons in the general structure of students and academic staff of this university equals 13.3% and 12.5%. Despite the high indicators of attraction of these categories of foreign citizens, the university has not formed effective marketing approaches to the management of R&D and its profitability which is largely due to the insufficiently high level of the regulatory and organisational provision of technology transfer, absence of market conditions and government support for its formation in Russia (Shmeleva et al., 2021);

- HSE University, with a low level of attraction of foreign students (2.48% in the

total number of the university's students), is peculiar by a high level of revenues from their training (RUB 145,063.00 thousand in 2019). Also, there is an effective approach to the organisation of R&D and technology transfer, the management of which allows the university to obtain substantial income with the attraction of academic staff from among foreign citizens (128,888.60 thousand in 2019);

- Bauman Moscow State Technical University achieved the lead positions among the ten studied Russian universities in the sphere of receiving incomes from educational services (RUB 179,899.60 thousand in 2019), with a low level of attraction of foreign students (2.77% in the total structure of the university's students). According to Pyankova et al. (2021) and Pyankova et al. (2020), such results of the financial and economic development of the university are due to the effective marketing of the main and additional educational services in the university;

University	Share of foreign students (except for the CIS member states), at the bachelor's, specialist's, and master's programmes, in the total number of students (given contingent), %	Share of foreign academic staff in the total number of academic staff, %	Assets received by the educational organisation from performing R&D from foreign nationals and foreign legal entities, RUB thousand	Assets from the educational activities, received by the educational organisation from foreign nationals and foreign legal entities, RUB thousand
Moscow Institute of Physics and Technology (MIPT)	1.90	3.70	9,364.00	25,077.70
HSE University	2.48	7.16	128,888.60	145,063.00
Peter the Great St Petersburg Polytechnic University	9.38	5.5	83,567.30	47,270.40
Bauman Moscow State Technical University	2.77	0.82	5,810.90	179,899.60
National Research Nuclear University MEPhI	13.3	12.15	3,563.10	0.00
Saint-Petersburg Mining University	4.49	5.35	8,185.00	35,003.60
ITMO University	7.89	7.69	32,775.80	75,089.10
Tomsk State University	3.10	5.23	32,753.70	80,802.90
National University of Science and Technology (MISiS)	3.92	3.87	7,712.20	56,833.70
Novosibirsk State University	2.40	0.78	3,527.00	105,858.70

**Table 2.** The factor of competition and the inflow of transnational capital in Russian national research universities in 2019.

Source: Ministry of Education and Science of the Russian Federation (2021a).

- Novosibirsk State University, with a low level of attraction of foreign students (2.4% in the total structure of the university's students), was able to ensure a high level of revenue from the educational activities in the context of this category of citizens (the revenues from tuition fees equalled RUB 105,858.70 thousand in 2019). Among the marketing measures on the attraction of foreign students to this university, it is possible to note the development and implementation of the Tandem project, which stimulates the maximum adaptation of foreign students in the Russian-speaking environment (leisure, education); positioning of advantages and results of implementing this project in the university; attraction of foreign students and provision of a wide range of main and additional educational services (Barabanova, 2018).

#### 4. Results

To develop a marketing approach during the reorganisation of a university under the impact of competition and the inflow of transnational capital, let us consider the results of the correlation analysis of the data from Tables 1 and 2.

According to the results of the correlation analysis (Table 3), the educational ranking demonstrated a negative correlation between quality and all factors of competition and the inflow of transnational capital. Therefore, it cannot be managed through these factors. Assets from the educational activities that are received from foreign nationals and foreign legal entities demonstrated a negative medium correlation (-23.42%) with the marketing results of quality. Thus, it shall not be further considered here.

**Table 3.** Results of the correlation analysis.

Correlation, %	Educational ranking	Research ranking	Citation ranking	Profitability ranking	Ranking of internationalisation of activities	On average	Weight coefficients
Share of foreign students, %	-20.77	-2.59	-2.58	49.59	34.35	11.60	0.31
Share of foreign academic staff							
in the total number of academic	-6.16	34.08	-9.34	51.92	44.21	22.94	0.62
staff, %							
Assets received from performing R&D from foreign nationals and foreign legal entities, RUB thousand	-17.51	16.05	39.49	-22.97	-1.76	2.66	0.07
Assets from the educational activities that are received from foreign nationals and foreign legal entities, RUB thousand	-8.56	-10.22	12.87	-60.65	-50.52	-23.42	-

Source: calculated and compiled by the author.

The sum of positive average coefficients of correlation is as follows: 11.60+22.94+2.66=37.20. The share of foreign students (let us denote it as  $x_1$ ) demonstrated a medium correlation with the marketing results for quality - 11.60%; its weight is assessed at 11.60/37.20=0.31. The share of foreign academic staff in the total number of academic staff (let us denote it as  $x_2$ ) demonstrated medium correlation with the marketing results for quality -22.94%; its weight is assessed at 22.94/37.20=0.62. Assets received from performing R&D from foreign nationals and foreign legal entities (let us denote it as  $x_3$ ) demonstrated medium correlation with the marketing results for quality - 2.66%; its weight is assessed at

#### 2.66/37.20=0.07.

Based on this the level of favourability of the impact of competition and the inflow of transnational capital on marketing management of quality during the reorganisation of Russian universities is determined (Table 4).

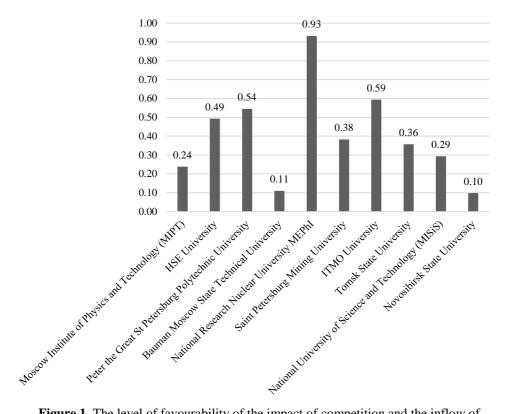
The final results of the performed assessment are demonstrated in Figure 1.

According to Figure 1, the highest level of favourability of the impact of competition and the inflow of transnational capital on marketing management of quality during the reorganisation of Russian universities in 2021 is observed with National Research Nuclear University MEPhI (0.93).

**Table 4.** Evaluation of the level of favourability of the impact of competition and the inflow of transnational capital on marketing management of quality during the reorganisation of Russian universities in 2021.

Rati	io to the maxin	num	Weighted values			
x <sub>1</sub>	x <sub>2</sub>	x <sub>3</sub>	x <sub>1</sub>	x <sub>2</sub>	X3	Hierarchical
(maximum:	(maximum:	(maximum:	(weight:	(weight:	(weight:	synthesis
13.3)	12.15)	128,889)	0.31)	0.62)	0.07)	
0.14	0.30	0.07	0.04	0.19	0.01	0.24
0.19	0.59	1.00	0.06	0.37	0.07	0.49
0.71	0.45	0.65	0,22	0.28	0.05	0.54
0.21	0.07	0.05	0.06	0.04	0.00	0.11
1.00	1.00	0.03	0.31	0.62	0.00	0.93
0.34	0.44	0.06	0.10	0.27	0.00	0.38
0.59	0.63	0.25	0.18	0.39	0.02	0.59
0.23	0.43	0.25	0.07	0.27	0.02	0.36
0.29	0.32	0.06	0.09	0.20	0.00	0.29
0.18	0.06	0.03	0.06	0.04	0.00	0.10

Source: calculated and compiled by the author.



**Figure 1.** The level of favourability of the impact of competition and the inflow of transnational capital on marketing management of quality during the reorganisation of Russian universities in 2021. Source: calculated and created by the author.

This high ratio of favourability of the influence of competition and the inflow of transnational capital to the quality of the management in MEPhI is due to the highest level of attraction of foreign students (13.3% in the total number of the university's students) and academic staff from the category of foreign citizens (12.5% in the total number of the academic staff of the higher educational establishment) (Table 2, Figure 1). Despite the insufficiently high provision of revenues from foreign citizens (students and academic staff) (Table 2), this implements competitive university programmes in the sphere of education and R&D. The revealed mismatch between the high level of attraction of foreign students and academic staff in the considered university and the low level of revenues from such measures is due to the existence of free programmes of education (main and additional) for citizens from certain countries. These countries include Vietnam. with which Russia has bilateral cooperation in the sphere of education and science (Golomidova, 2020), (Zhidkikh et al., 2018).

The optimisation measures should stimulate the inflow of foreign students, which aim at the receipt of main and additional educational services on a paid basis in MEPhI. These measures include as follows:

- Development and implementation of digital services, which may include online consultations for foreign students on technical and educational issues. The use of these services should be organised on a paid basis, with the mandatory use of a foreign language. These services may envisage an exchange of messages in the course of communication and the organisation of communicative interaction with the help of video. These digital services could be provided to foreign students in the 24/7 regime, which will allow ensuring a high organisation of the quality of communication in the educational process and will influence the growth of the inflow of transnational capital to the higher educational establishment;

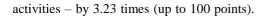
- Creation of a platform of paid courses on various specialities. Development of this platform may take place with the use of continuous monitoring of demand from foreign students and academic staff, which will allow revealing the change in the priorities of consumers. This platform of paid courses may be implemented on a traditional basis (at the university's premises) and on the remote digital basis. This approach will ensure a choice for students, and the digital form would be more acceptable in case of a lockdown, allowing saving on energy resources.

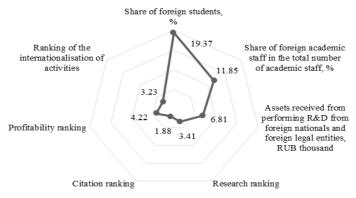
For other universities, this ratio is moderate or low; thus, it needs to be increased. For this, the regression dependence of the selected marketing results for quality is determined – research ranking  $(y_1)$ , citation ranking  $(y_2)$ , profitability ranking  $(y_3)$ , and the ranking of internationalisation of activities  $(y_4)$  – on the selected factors. The following regression equations are received:

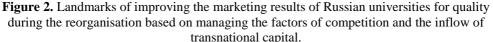
- y<sub>1</sub>=22.46+1.17x<sub>2</sub>+0.00002x<sub>3</sub>;
- y<sub>2</sub>=44.55+0.0003x<sub>3</sub>;
- $y_3 = 57.15 + 1.29 x_2 + 2.09 x_3;$
- $y_4 = 42.52 + 0.01 x_2 + 2.08 x_3.$

Based on the above regression equations, a method of substitution is used to compile the landmarks of the improvement of the marketing results of Russian universities for quality during the reorganisation, based on managing the factors of competition and the inflow of transnational capital (Figure 2).

According to the landmarks received in Figure 2, the share of foreign students should be increased by 19.37 times; the share of foreign academic staff in the total number of academic staff should be increased by 11.85 times; assets received from performing R&D from foreign nationals and foreign legal entities should be increased by 6.81 times. Due to this, the research ranking of Russian universities will grow by 3.41 times (up to 100 points), the citation ranking – by 1.88 times (up to 100 points), the profitability ranking – by 4.22 times (up to 88.48 points), and the ranking of internationalisation of







Source: calculated and created by the author.

## **5.** Conclusion

А marketing approach quality to management during the reorganisation of a university under the impact of competition and the inflow of transnational capital was developed. This approach includes, first, methodological recommendations on assessing the level of favourability of the impact of competition and the inflow of transnational capital on the marketing management of universities' reorganisation. approbation of compiled The the recommendations based on the national research universities of Russia in 2021 showed that the level of favourability of the

impact of competition and the inflow of transnational capital on marketing management of quality during the reorganisation is moderate or low.

Second, the landmarks of improving the marketing results of Russian universities for quality during the reorganisation based on managing the factors of competition and the inflow of transnational capital. The proposed landmarks are to ensure the increase of the level of favourability and impact of competition and the inflow of transnational capital on marketing management of quality during the reorganisation of Russian universities.

#### References

- Alharbi, Y., Rabbi, F., & Alqahtani, R. (2020). Understanding University Student's Intention to Use Quality Cloud Storage Services. *International Journal for Quality Research*, 14(1), 313-324. https://doi.org/10.24874/IJQR14.01-20
- Alsharari, N. M. (2019). Internationalization market and higher education field: institutional perspectives. *International Journal of Educational Management*, 34(2), 315-334. https://doi.org/10.1108/IJEM-12-2018-0402
- Barabanova, D. S. (2018). Assistance in adaptation: the project "Tandem" in Novosibirsk State University. Current issues of implementation educational programs at the preparation faculty for foreign citizens, 1, 89-93.

- Chayanon, S., Srisorn, W., & Punluekdej, T. (2020). The Innovation of E-Money Via SSRU Smart Purse in Purchasing Products, Food and Beverages of Students at Suan Sunandha Rajabhat University. *International Journal for Quality Research*, 14(1), 5-20. https://doi.org/10.24874/IJQR14.01-01
- Dewi, R. S., Roza, M., Taridi, M., Alek, A., & Fahrurrozi (2021). Nexus between quality of education, student satisfaction and student loyalty: the case of department of English teacher education at Universitas Islam Negeri In Indonesia. *International Journal for Quality Research*, 15(1), 89-106. https://doi.org/10.24874/IJQR15.01-05
- Fahrurrozi, Murtono, Lestari, I., Sarifah, I., & Dewi, R. S. (2021). The usefulness of online learning on quality of education during covid-19 pandemic: evidence from the department of elementary school teacher education at Universitas Negeri Jakarta, Indonesia. *International Journal for Quality Research*, 15(1), 107-124. https://doi.org/10.24874/IJQR15.01-06
- Fokdal, J., Čolić, R., & Milovanović Rodić, D. (2020). Integrating sustainability in higher planning education through international cooperation: Assessment of a pedagogical model and learning outcomes from the students' perspective. *International Journal of Sustainability in Higher Education*, 21(1), 1-17. https://doi.org/10.1108/IJSHE-01-2019-0045
- Golomidova, P. S. (2020). Best practices of Russian universities educational programs export to the Socialist Republic of Vietnam. *Journal of Wellbeing Technologies*, 4(39), 85-104.
- Karnai, L., Szollosi, L., Gáthy, A. B., & Szucs, I. (2021). Attitudes of Debrecen university students towards healthy life based on their dietary habits. *International Journal for Quality Research*, *15*(1), 125-138. https://doi.org/10.24874/IJQR15.01-07
- Kommersant (2022). Digitalization has been elevated to a "Priority". Retrieved from: https://special.kommersant.ru/prioritet/prioritet.html?source=subscribe (data accessed: 05.08.2022).
- Lafuente-Ruiz-de-Sabando, A., Zorrilla, P., & Forcada, J. (2018). A review of higher education image and reputation literature: Knowledge gaps and a research agenda. *European Research on Management and Business Economics*, 24, 1, 8-16.
- Lysova, E. A., Bratukhina, E. A., Sozinova, A. A., & Matushkina, Y. N. (2020). Digital modernization of the region's educational market and its influence on quality of education. *International Journal for Quality Research*, *14*(1), 253–270.
- Mahajan, P., & Golahit, S. (2019). Service marketing mix as input and output of higher and technical education: A measurement model based on students' perceived experience. *Journal of Applied Research in Higher Education*, *12*(2), 151-193. https://doi.org/10.1108/JARHE-01-2019-0022
- Miao, T., Janchai, W., & Panyanuwat, A. (2021). A Quality Assessment and Competency Development through Participatory Knowledge Management Approach for Stakeholders' in "Foreign Experts Introduction Project" in a Chinese University. *International Journal for Quality Research*, 15(2), 507-518. https://doi.org/10.24874/IJQR15.02-09
- Ministry of Education and Science of the Russian Federation (2021b). *Programme for strategic academic leadership*. Retrieved from: https://minobrnauki.gov.ru/press-center/news/?ELEMENT\_ID=21471 (data accessed: 31.12.2021).
- Ministry of Education and Science of the Russian Federation (2021a). Information and analytical materials on the results of the monitoring of effectiveness of the activities of educational organisations of higher education in 2019. Retrieved from: http://indicators.miccedu.ru/monitoring/2019/index.php?m=vpo (data accessed: 31.12.2021).

- Mohamed Hashim, M., Tlemsani, I., & Matthews, R. (2022). Higher education strategy in digital transformation. *Education and Information Technologies*, 27, 3171–3195.
- National Research University "Higher School of Economics" (2021). *The list of national research universities of Russia*. Retrieved from: https://strategy.hse.ru/list (data accessed 31.12.2021).
- Nikolaev, A. S., & Kirillov, N. N. (2022). Activities of domestic HEIs in the development of the innovation-based economy and technology transfer market. *Theory and Practice of Social Development*, 6(172), 94-100.
- Plotnikova, E. V., & Ephremova, M. O. (2019). Diagnostics of trends in digitalization system on the example of leading Russian universities. *Kant*, 2(31), 362-370.
- Popkova, E. G., Savelyeva, N.K., Sozinova, A.A. (2021). Smart Technologies in Entrepreneurship: Launching a New Business Cycle or a Countercyclical Instrument for Regulating the Economic Situation. *Lecture Notes in Networks and Systems*, 155, 1722-1730.
- Pyankova, S. G., Mitrofanova, I. V., Ergunova, O. T., Buyanova, M. E. (2021). Particularities of marketing communications in the field of internationalization of higher education in the Russian Federation. *Deturope*, *13*(3), 98-117.
- Pyankova, S. G., Mitrofanova, I. V., Ergunova, O. T., & Zhemerikina, E. B. (2020). Promotion of a Higher Education Institution in the Educational Services' Market Under the Conditions of Spatial Integration of Universities. Regional economy. South of Russia, 8, 3, 34-51.
- Robinson-Garcia, N., Torres-Salinas, D., Herrera-Viedma, E., Docampo, D. (2019). Mining university rankings: Publication output and citation impact as their basis. *Research Evaluation*, 28, 3, 232–240.
- Sahibzada, U. F., Jianfeng, C., Latif, F., & Shafait, Z. (2019). Development and validation of a multidimensional instrument for measuring internal marketing in Chinese higher education. *Journal of Enterprise Information Management*, 32(3), 413-435. https://doi.org/10.1108/JEIM-09-2018-0206
- Saveleva, N. K., Nagovitsyna, E. V., Lapteva, I. P., Shchinova, R. A., & Koikova, T. L. (2018). The necessity for developing the integrated system of economic information on the bank services market in the conditions of globalization. *Espacios*, 39(28).
- Savelyeva, N. K., Kuklin, A. V., Lapteva, I. P., & Malysheva, N. V. (2019). The investment attractiveness of a regional market of educational services as the basis of its global competitiveness in industry 4.0. *On the Horizon*, 27(3-4), 239-244.
- Savelyeva, N. K., & Timkina, T. A. (2021). Smart Technologies" as a Mechanism for Regulating Bank Competition in Cross-Border Markets. *Lecture Notes in Networks and Systems*, 155, 1322-1330.
- Shmeleva, N., Gamidullaeva, L., Tolstykh, T., & Lazarenko, D. (2021). Challenges and Opportunities for Technology Transfer Networks in the Context of Open Innovation: Russian Experience. J. Open Innov. Technol. Mark. Complex, 7, 197. Retrieved from: https://www.mdpi.com/2199-8531/7/3/197/htm (data accessed: 05.08.2022).
- Siberian Federal University (2022). The influence of the technology transfer system on the development of universities was discussed at the KEF. Retrieved from: https://news.sfu-kras.ru/node/25958 (data accessed: 05.08.2022).
- Sozinova, A. A. (2018). Marketing concept of managing the reorganization of entrepreneurial structures using the latest information technologies. *Quality Access to Success*, 19(S2), 118–122.

- Swanson, M. K. & Swanson, B. A. (2019). Faculty placement strategies for international higher education institutes: A cultural values perspective. *Journal of International Education in Business*, 12(2), 212-227. https://doi.org/10.1108/JIEB-10-2018-0044
- Tan, D., Yough, M., & Wang, C. (2018). International students in higher education: Promoting their willingness to communicate in classrooms. *Journal of Applied Research in Higher Education*, 10(4), 430-442. https://doi.org/10.1108/JARHE-01-2018-0008
- Telsi, E. E., & Kantur, D. (2014). University Reputation: Scale Development and Validation. *Boğaziçi Journal Review of Social, Economic and Administrative Studies, 28*, 49-74.
- THE (2021). *World University Rankings* 2021. Retrieved from: https://www.timeshighereducation.com/world-university-rankings/2021/world-ranking#!/page/0/length/-1/locations/RU/sort\_by/rank/sort\_order/asc/cols/scores (data accessed: 31.12.2021).
- Times Higher Education (2022). World University Rankings 2022. Methodology for overall and subject rankings for the times higher education world university rankings 2022. Retrieved from: https://www.timeshighereducation.com/sites/default/files/breaking\_news\_files/the\_2022\_wo rld\_university\_rankings\_methodology\_31082021\_final.pdf (data accessed: 05.08.2022).
- Times Higher Education (2022). Young University Rankings 2022: methodology. Retrieved from: https://www.timeshighereducation.com/young-university-rankings-2022-methodology (data accessed: 05.08.2022).
- Vel, P., Shah, A., Mathur, S., & Pereira, V. (2019). Internal marketing in a higher education context – towards an enriched framework. *International Journal of Educational Management*, 33(1), 5-27. https://doi.org/10.1108/IJEM-02-2018-0043
- Watson, K., & McGowan, P. (2019). Rethinking competition-based entrepreneurship education in higher education institutions: Towards an effectuation-informed coopetition model. *Education* + *Training*, 62(1), 31-46. https://doi.org/10.1108/ET-11-2018-0234
- Zhidkikh, A. A., Karimova, M. I., & Shiryaev, N. A. (2018). The experience of cooperation between Russia and Vietnam in the field of education in the second half of the XX early XXI century. *Bulletin of economic security*, *2*, 242-247.

#### Anastasia A. Sozinova

Vyatka State University, Kirov, Russia <u>aa\_sozinova@vyatsu.ru</u> ORCID 0000-0001-5876-2823 Sozinova, Marketing approach to quality management during the reorganisation of university under the impact of competition and the inflow of transnational capital