*Organizational Culture as a University Transformation Indicator: Russian Case*

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**Abstract**
Since 2013, fifteen Russian universities have been participating in the "5-100" excellence program through which every university should achieve certain performance indicators by 2020, including the proportion of attracted foreign students, the certain proportion of foreign professors, quality of publications, academic mobility and internationalization of the university and others. Complex of managerial tools allowed Tomsk state university (Russia, Siberia) to rose from 586 to 268 place in 5 years, demonstrating the fastest growth in the world university ranking (THE, QS, ARWU). One of such tools is the analytical support of the organizational culture transformation which is difficult to overestimate. In the situation of limited financial resources and the incomparability of the budgets of foreign universities and the local Siberian University, the main growth tool in the ratings is a bet on the human potential of a university person. It is the university person who will have to make the main changes, and that is why the main block of tools deals with conditions for university personnel: open discussions with administrators about values, creating Code of Ethics, shared governance model, best practices competition, international services development etc. The annual diagnosis of organizational culture (2013-2020), carried out by quantitative, qualitative and phenomenological methods, shows the dynamics and allows to develop professional recommendations. Diagnostic results are in demand by university management, the international university management council, and are discussed at international conferences as a phenomenon of rapid growth in world rankings.


Keywords: Organizational Culture, University Transformation Indicator

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**Introduction**

The desire to adapt educational organizations to new global challenges and trends and ensure their competitiveness at the national and international levels has forced Russia to establish academic excellence initiative as the main state program to develop the international competitiveness of Russian universities.

Since 2013, fifteen Russian universities have been participating in the "5-100" excellence program through which every university should achieve certain performance indicators by 2020, including the proportion of attracted international students, the certain proportion of international professors, quality of publications, academic mobility and internationalization of the university and others. This program offers government financial and managerial aid to promote individual universities academic excellence and global competitiveness at the rate of the world's best universities. One of the most important political issues in the field of higher education is the implementation of 5–100 Project and the evaluation of its results, as a significant amount of money is invested in a relatively small share of state universities (Agasisti et al., 2018[1]).

In our study, we collect information about the leaders-universities of the "5-100" program, and in our article we will focus in detail on the case of one university as a symbol of informal leadership in the "5-100" program: non-capital, the last imperial university, an example of classical education, in the ranking of universities since Soviet times was always located immediately after Moscow and St. Petersburg universities. Complex of managerial tools allowed Tomsk state university (Russia, Siberia) to rose from 586 to 250 place in 5 years, demonstrating the fastest growth in the world university ranking among Russian universities (THE, QS, ARWU). One of such tools is the analytical support of the organizational culture transformation which is difficult to overestimate.

Organizational culture is "an integral complex of worldview axioms, values, signs, interrelated and hierarchically structured, common to most employees of the organization"[2]. From the very first days Tomsk state university was formed as a research university of the classical type, organically combining natural science, socio-humanitarian, physics and mathematics and engineering education and does not focus on several priority areas. It was based on the German model of the Humboldt University. This model is based on the idea of a university as a temple of science and culture, whose mission is the development of a nation state, therefore, research in such a university is usually focused on national and regional interests.

What distinguished the last Emperor Classical University during the 5-100 program? It were open discussions of the university administration with the university

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[1] Agasisti, T., Shibanova, E., Platonova, D., & Lisyutkin, M. (2018). The Russian Excellence Initiative For Higher Education: An Econometric Evaluation Of Short-Term Results. IDEAS Working Paper Series from RePEc. Retrieved from http://search.proquest.com/docview/2189124419/

[2] Schein Edgar, H. (1985), "Organizational culture and Leadership", available at: http://www.untagsmd.ac.id/files/Perpustakaan_Digital_2/ORGANIZATIONAL %20CULTURE%20Organizational%20Culture%20and%20Le adership,%203rd%20Edition.pdf (accessed 1 March 2020).

community about the difficulties give a special meaning and explanation of the declared university corporate culture changes; recall the positive image of the future, so called "World-class University"; reminds of the history, culture and values; show positive examples; set "standards of excellence" and reflection on the University' uniqueness, it was an anthropological phenomenon in the center of the approach. That is why our research question has anthropological aspect: how changes in university organizational culture influenced on the three main group of the university community?
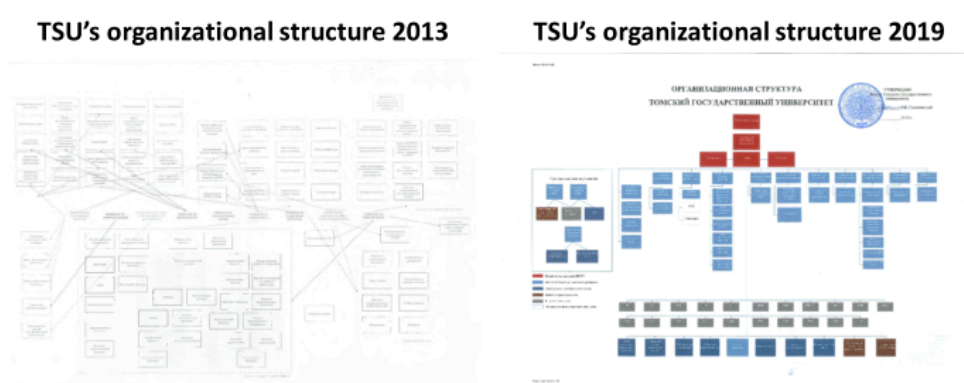


Figure 1: Comparative analysis of the organizational structures of Tomsk state university in 2013 and in 2019.

**Before the "5-100" program: challenges**

Russian higher education system is one of the world's largest. More than 4.4 million students studied with 480 satellites and 266 private universities with 171 satellites at 502 state universities (2017). These universities, however, operate with relatively high financial constraints because only about 1.61% of government spending goes to higher education: 44% of them come from non-state resources and 53% from the federal budget[3] (Agasisti, Shibanova, Platonova, & Lisyutkin, 2018). Thus, the education sector is facing financial constraints.

The strongest sides of TSU are research and academic reputation is one of the strongest areas, regardless of the historical period of Tomsk State University: historically it was the last imperial university, whose professors were represented by the names of world-famous scientists.

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[3] Agasisti, T., Shibanova, E., Platonova, D., & Lisyutkin, M. (2018). The Russian Excellence Initiative For Higher Education: An Econometric Evaluation Of Short-Term Results. IDEAS Working Paper Series from RePEc. Retrieved from http://search.proquest.com/docview/2189124419/

The weaknesses are: universities in Russia are highly fragmented organizations, they have conflicting ideas about how "ought to be done", decision-making is often bottom-heavy, even where deans and presidents are imbued with a high degree of formal authority; old diploma' system of distribution; lack of uniqueness, which allows attracting the best professors; inefficiency of efforts to attract talented applicants in the specialties of the leading scientific schools of TSU; low attractiveness to graduates going to science; the lack of flexibility and flexibility to adapt to the demands of the external environment.



## Budget of reference universities, bln RUB:

The University of Texas at Austin 198 bln RUB
Utrecht University 62 bln RUB
Fudan university 116 bln RUB
Lund university 60 bln RUB
National Taiwan university 38 bln RUB
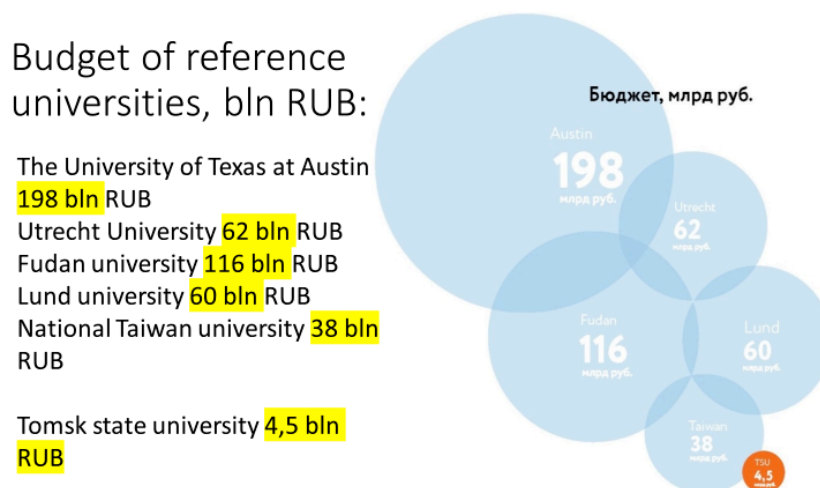
Tomsk state university 4,5 bln RUB

Figure 2: Comparative analyses of the reference universities budgets including TSU.

For example, budgets of National Research Tomsk state university is 0.077 bln dollars (4,5 bln RUB), budgets of reference universities are many times more: Taiwan university's budget is 0.655 bln dollars (38 bln RUB), Lund University's budget is 1,03 bln dollars (60 bln RUB), Fudan univerity's budget is 2 bln dollars (116 bln RUB), University of Utrecht's budget is 1.068 bln dollars (62 bln RUB),University of Austin budget is 3.413 bln dollars (198 bln RUB).

Consequently, the main hypothesis of our article is that even in the absence of referential funding, a provincial university with a strong history of the imperial university, excellent academic reputation, accumulated during the years of the Soviet Union and the first years of the emergence of a new country of the Russian Federation, in the context of the struggle for resources and competition with world class universities was able to create managerial conditions that ensured growth in world ratings of higher education.

According to critical analysis of the current state of higher education and scientific research and showed that leading Russian institutions did not succeed in world ratings[4]. A. Smolentseva mentioned: low rating of integration into the global educational space indicated the internal problems of Russian education; Russia's modern education system has not completely departed from the old system, as the complete modernization of higher education in accordance with international standards requires tremendous resources and time. N. Sabitova wrote: "The language

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[4] Smolentseva, A. (2015). In Search of World-Class Universities: The Case of Russia. *International Higher Education*, (58). https://doi.org/10.6017/ihe.2010.58.8476.

barrier, university autonomy, and approaches to assessing the quality of education have shown that for many years Russian educational policy was aimed at increasing competitiveness mainly in the field of domestic education and not to the international perspective"[5]. Furthermore, by Gurban and Tarasyev[6] (2016) it was noted that the weak orientation of the education system towards the real needs of the national economy led to an imbalance in the structure of the labor market needs of graduates of educational institutions.

Focus groups (2013-2015, mixed groups with leaders from three groups of the university community (administrators, teachers and students) showed: ineffective university management system with concentration of powers on the distribution of resources and finances in one hand, which does not allow implementing initiatives at a lower level of management; excessive bureaucratization of university management structures; non-transparency of the system of distribution and coordination of powers, responsibility of units; lack of structural units to solve the key tasks of the university; high motivation to improve their activities and educational process at the university; desire to improve qualifications and improve the educational process.

Now, Russian Federation in the world ranking QS 2021 is represented by 32 higher educational institutions. TSU among them in fourth place, in the top three - Moscow State University, St. Petersburg State University and NSU. For 8 years, Tomsk state university has shown positive dynamics in rankings. TSU entered the 21% of the strongest universities in the world. The university showed a noticeable growth (by 18 points) in the share of foreign students, becoming 95th in the world, as well as in academic reputation (growth by 23 points). The last indicator has the largest weight and accounts for 40% of the total university score. In terms of the ratio between the number of academic staff and the number of students, TSU takes 29th place among the universities of the world. In general, the position of TSU has become higher by 18 points.

[5] Sabitova, N. M. (2014). Current Issues of Financial Education in Russia. Procedia - Social and Behavioral Sciences, 152(C), 911–915. https://doi.org/10.1016/j.sbspro.2014.09.342.
[6] Gurban, I., & Tarasyev, J., A. (2016). Global trends in education: Russia case study. IFAC PapersOnLine, 49(6), 186–193. https://doi.org/10.1016/j.ifacol.2016.07.175
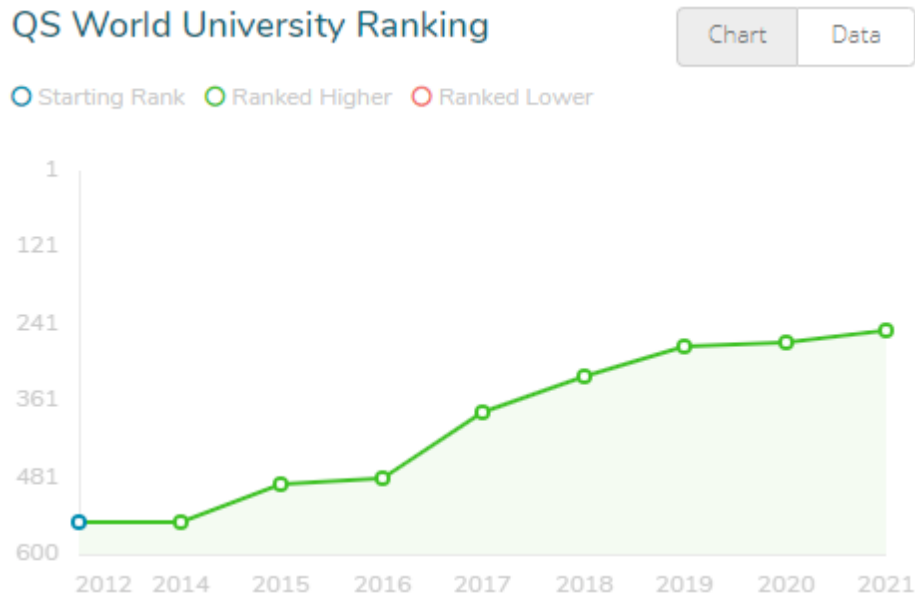
Figure 3: Tomsk state university in QS World University Rankings 2021.

**Methods**

The configuration of the university's organizational culture was measured by the combination of qualitative and quantitative sociological methods. Based on the data of these methods, the problem configuration field was formulated. On its base the recommendations are developed. Thus, the main task is to identify the organizational culture configuration which is the indicator of transformations.  Since 2013 -2020 every year, Tomsk state university has been conducting the corporate culture configuration diagnosis, the results of which are discussed at an international conference HR-trend (2014-2020) with the participation of the rector and the office of strategic management. On the basis of an analytical note on the configuration of corporate culture, related to changes in the culture of the university management decisions are made. The three main groups of the university community (administrators \ managers, professors and students, n = 210, 10% of the total number of all recipients) are surveyed annually using three methods of collecting information. Methods are:

(1) Qualitative projective self-diagnostics organizational method "Metaphor" developed by A. Prigozhin from Israeli-Russian business school[7] allows to see the general idea of employees about the functioning of the organization: its values, vision of the future, openness / closeness of the organization, degree of anthropocentricity, degree of customer focus, vision partners and competitors, awareness of the uniqueness of the university. The "Metaphor" self-diagnostic method clearly demonstrates corporate culture gaps. In this case specialists can talk about three main issues: "Does the organization have its own strategy?", "What is the situation with innovations?", "Does the organization develop?". The annual diagnostics give an objective cut of the main value-semantic fields that university lives in. One of the

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[7] Prigozhin A. I. (2003) Methods of organization development, available at: http://portal-u.ru/glava-3-metodyupravlencheskoj-diagnostiki/3-1-metody-provedeniyasamodiagnostiki (accessed 8 January 2020).

undeniable advantages of the "Metaphor" method is its ability to see the layer of basic values of the organizational corporate culture according to the E. Schein (E. Schein, 1985) conception.

(2) Quantitative and qualitative method OCAI by K. Kameron and R. Quinn[8] allows to see the correlation between competing values. K. Cameron and R. Quinn identified 39 indicators that define a complete set of measures of organizational effectiveness. Each indicator was subjected to statistical analysis, which made it possible to identify two main dimensions (horizontally and vertically). Both dimensions form four quadrants, corresponding to their ideas of efficiency, values, leadership styles, and form their own culture: hierarchical / bureaucratic, clan, adhocratic, market.

(3) Qualitative method of mixed focus groups with representatives of the university community allows to clarify the obtained qualitative and quantitative data and to get more detailed and deep reflections on the university corporate culture changes. Participants of the focus groups are the informal leaders of faculties and the staff who did not show interest in the transformation processes. The combination of these two groups gives the objective information. In addition, the survey participants change every year. This article provides materials and data for 2014-2016 as the most vividly demonstrating dramatic changes in the entire quadrant of the corporate culture configuration: the time to get used to constant changes.

**Results**

**"Metaphor" Method**



Figure 4: Metaphor method, TSU, all groups of the university community, 2020.

Thus, the majority of pictures on 2013 were devoted to the massive closed main university building without people. In such cases, it should be noted: "No dynamics." Why is everything so static? Is the organization not developing? Does the organization have a strategy? What about innovations?"

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[8] Cameron, K. and Quinn, R. (2001), "Diagnosis of organizational culture changes", St. Petersburg, 320p. 41-42 pp.

In contrast the pictures of further years and 2020 have people. 2020 pictures show us another interesting metaphor: the metaphor of a soap bubble that is about to burst, but is still being darned, patched in the hope that it will not burst. For when it bursts, only the main building of the university will remain (administrator's picture). Students' pictures values, mission and goals declared by the university were embodied in 2015-2020 and were successfully supported in the drawings of students (integrity of parts as a system, wards in English, the planet and holding hands of all nationalities and races of the Earth) and professors in the 2013-2020 drawings (Figure 4). It can be said that the values declared by the university first appeared in the drawings of students, and only after that they can be noticed then appeared in the drawings of professors. Based on the diagnosis, it can be concluded that members of the university community are superficial to the process of changes, "do not see" them, do not identify the main strategic tasks of the university development in a large flow of information, and do not associate the ongoing changes at the university with themselves.

**OCAI Method: results**
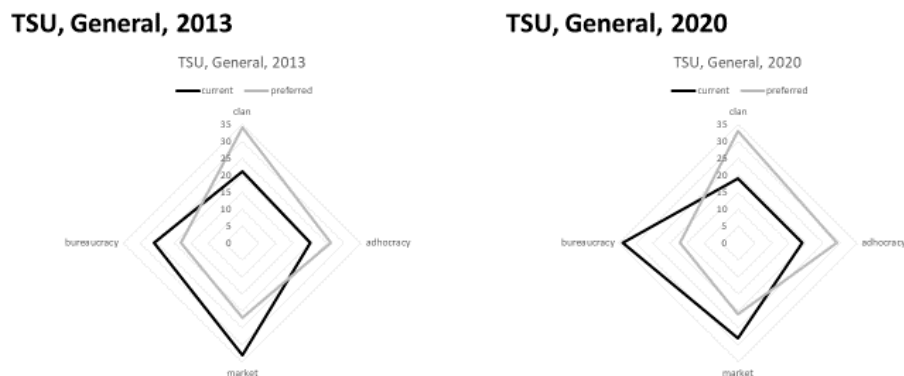


Figure 5: Comparative analysis of the configuration of the organizational culture of TSU in 2013 and in 2020.

The diagnosis of TSU (2013) represents a stretch between conflicting clan and market cultures, which translates into a university discourse: the use of the meanings and semantics of teamwork, the joint achievement of a common goal, and in fact, the strict implementation of primarily "market" indicators of a world-class university. At the same time, the university's culture reads the leadership's orientation toward the strict fulfillment of the goals set and achievement of the planned results. And a "humane" strategy was chosen for the staff: maximum staff involvement and minimum number of cuts. This ambivalent position proved itself in the results of the analysis of university discourse.

The dominant profile of organizational culture, both in the opinion of students and in the opinion of employees, is a clan-adhocratic one. At the same time, the dynamics over the year showed a shift in estimates towards the bureaucratic profile of the

organizational culture as existing, while maintaining the clan-adhocratic profile as the preferred one. This means that employees are oriented at TSU as an organization with a creative atmosphere, with the possibility of flexible professional tasks and ways to solve them, combined with a desire for cohesion, complicity and a collective sense of how we are.

The clan culture (Figure 6) for seven years of diagnosis remains the leader among the faculty and students as desired. The largest gap between the desired clan culture rating and its real level was observed in 2016 and 2018. It should be noted that the clan type of culture is the second most important among the AUP, and in the last 3 years it has become the third most important, which means conflict with the main groups of the university community.
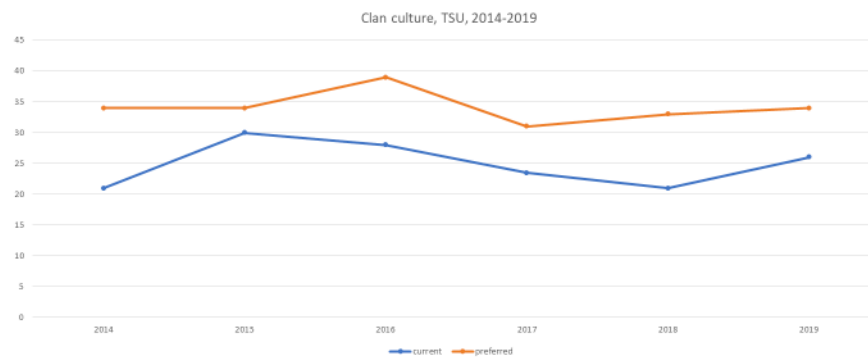


Figure 6: The dynamics of the leading clan culture development (2014-2019).

The market culture (Figure 7), which is the opposite of the clan culture, for six years of diagnosis demonstrates the consistently highest rating of the desired culture among the administrators. It is noteworthy that it was in 2017 in the general chart of the university that the desired and real market culture rating almost coincided, which coincides, in turn, with the university's largest breakthrough in the global QS ranking.
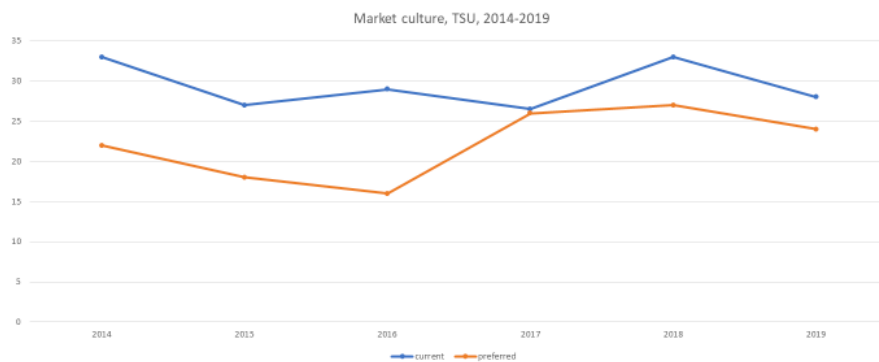
Figure 7: The dynamics of the market culture development (2014-2019).

The culture of adhocracy (Figure 8), which all three groups of the university community make a bet on, is the second dominant, "subconscious" culture of the university, which everyone aspires to, but in reality, the dominant adhocracy is characteristic of universities with a market culture accepted by all categories of the university community.
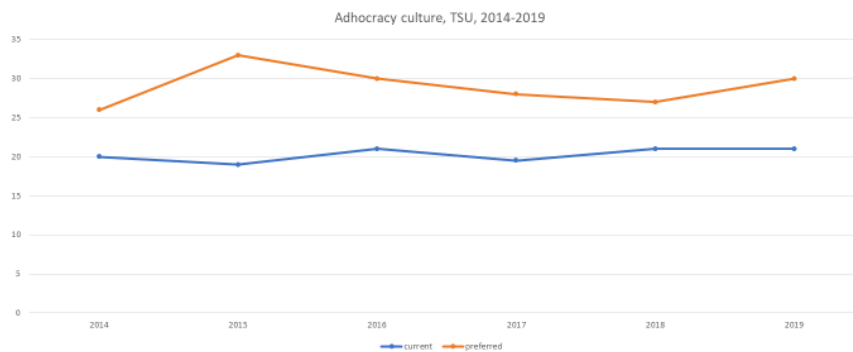


Figure 8: The dynamics of the adhocracy culture development (2014-2019).

The culture of bureaucracy (Figure 9) is an anti-leader 2014-2019. The highest peak of joint "hatred" of all categories of the university community falls on 2017, when the conflict gap was on the verge of 29 points.
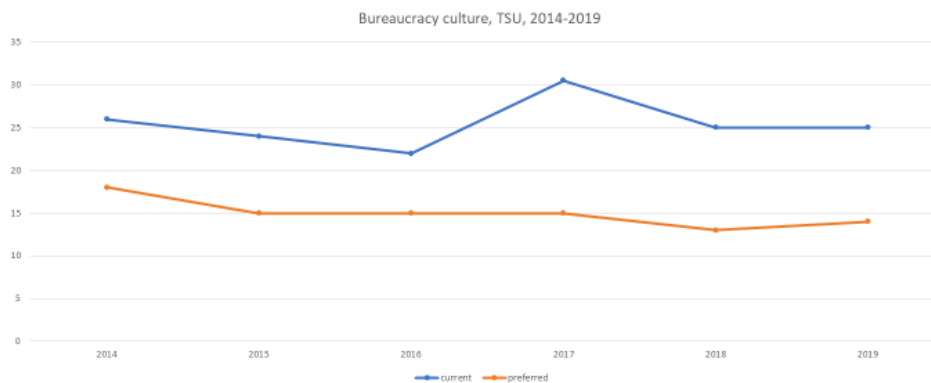
Figure 9: The dynamics of the bureaucracy culture development (2014-2019).

Thus, the leading "gap" in the TSU's organizational culture is excessive bureaucracy, a lack of measures to strengthen the clan culture and culture of adhocracy. As recommendations, the following activities are proposed in the logic of the school of K. Cameron and R. Quinn.

• Redesign of the rapid response system: checking the time between the request and the actual response.

• Implementing an assessment system in which feedback from teachers and students will influence immediate contact.

• Consider the feasibility of using technology that will reduce paperwork.

• Increase the volume of information storage to maintain information flow in the system, especially during periods of high voltage.

• Make an assessment of disruptions. Develop crisis prevention plans.

• The opportunity to communicate on an ongoing basis, where representatives of all categories of the university community could discuss the current agenda: open discussion platforms.

• Introduce 360-degree assessments of department heads from their subordinates, analyze the data and make a plan to improve managers' performance.

• Design a career development program that emphasizes mobility.

• Establish an employee survey program to make monitoring systematic.

• Develop a system for recognizing the merit of employees, reward extraordinary efforts.

• Improve the relationship between support services and line-of-business operations

• Get the CEO to conduct focus group-style interviews with department leaders to find out how well everyone understands the direction for organizational improvement.

• Introduction of elections for administration positions, feedback on the effectiveness of activities and the effectiveness of implemented projects.

**Focus group: results**

University leaders' focus group shows us the main gaps in the corporate culture of the changing university were identified: the conflict of old and new norms; conflict between written and unwritten rules; the gap between the vision of administration, professors and students; another discourse of three main groups of the university community.

The dominance of clan culture is supported by three independent research methods and does not imply that the university will achieve the rapid change expected by the operators of university superiority. The university is too large and long-term organization (900 years of existence of the university as a social institution), which can be changed with the help of advanced, flexible structures and units focused on the experience of the best university practices, therefore it is called a postmodern university.

The main task of the organizational culture of the university is the preservation of innovative brands while preserving the classic traditional heritage of the university. Despite the new guidelines associated with commercialization and competition, the corporate culture of the university is still focused on maintaining its high goal and the formation of professional and personal identity of employees.

**Discussion**

The sociological approach to diagnosis made us realize the role and positive benefits of the co-management style and focus on the clan culture. In this regard, the following steps in the design of further changes at the university are possible:
(1) In order to legitimize the new norms of the university, it is necessary to ensure constant communication between the administration and the teaching staff in order to critically discuss the new norms and determine the mechanisms for their implementation. Regular meetings of top management with teams of structural units, as well as public discussions in the university community;
(2) Employees should feel positive changes as a result of the introduction of new standards. Therefore, a system of measures is needed to improve the working conditions of scientific and pedagogical workers, which can improve their perception of the situation at the university.
(3) Student community inclusion and student feedback is also needed due to the global trend of student community "growth" where education becomes a practice that lasts a lifetime.

As a result of this work, the "Roadmap" and the University Code of Ethics were tested and approved with amendments. The annual review of local documents is a key moment to discuss university standards, discuss corporate culture gaps and how to overcome them. In the future, the developed system of methods can be applied to other universities participating in advanced training programs, and more broadly in the study of any organizational culture during the period of transformation.

The following practical results were implemented based on the diagnostic results through the university administration:
• Annually revised Code of Ethics in TSU
• Annually TSU' organizational culture diagnostics and discussion with the university community: "HR trend" international conference as a tool of a middle ground.
• Sociological research center was established.
• The discourse of TSU' normative documents were examined and conclusions of its transformation in the context of new requirements were made. Having a representative function the language primarily registers changes in management style, employee relation, normative and axiological parameters.
• Annually meetings of TSU' administration and research and teaching staff with the critical discussion of norms and execution mechanisms; improving conditions.

These tools allow the university community to build a culture of trust, cooperation and collaboration.

**Conclusion**

Analytical support of the university organizational culture transformation has applied results and contributes to the analysis of global processes in the higher education system. A set of techniques allows us to identify open and hidden conflicts and stimulate constructive overcoming of these conflicts both at the level of top management and at the level of individual groups of subjects, which ultimately contributes to the development of the organization.

In the activities of the organization, the processes of bureaucratization, stagnation of development are observed with a stake on a collaborative, democratic style of management. There are differences between the vision of leaders, teachers and students: leaders make a bet on the market culture, teachers and students make a bet on the clan culture and appeal to the university as a friendly place of work. Double discourse of language became a sign of the times. At the same time, university's bureaucratization creates a second conflict for the "advanced" management group, which works in the style of project management: the conflict between bureaucratization complexity and the desire, ability and readiness to act a sin the culture of adhocracy. Thus, the existence of the demands of the old - bureaucratic and clan - culture of the classical university and the simultaneous demand of a new academic culture, of which the market, adhocracy and clan are a part - creates a basic crisis, a complex "smart problem" of the modern university.

In the fall of 2020, the Strategic Academic Leadership Program will start, a kind of restart of the 5-100 project, where the main focus will be the formation and implementation of university development strategies, and the ratings will be interpreted as indicators of the effectiveness of this work.

**Acknowledgments**

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