

Russian Education in the Context of the Third Generation Universities` Discourse: Employers` Evaluation

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ABSTRACT

Urgent problems of modernization of the Russian system of higher education in the context of the discourse of the third generation universities were revealed on the basis of the expert survey of employers (heads of personnel departments of large industrial enterprises of the city of Kazan and the Republic of Tatarstan) within research project "Strategy development of socio-economic development of the Republic of Tatarstan for the period till 2030". These include: insufficient level of professional skills and competencies of graduates in recent decades; decrease in motivation of young specialists in employment and work in the industrial sector; formal activities aimed at enhancing interaction between universities and companies due to the lack of financial and material resources. To improve the quality of young specialists` training, experts offered recommendations such as improving the system of practical training of students, modernization of the educational process through the use of new educational technologies and active involvement of employers into the development of educational plans and programs, improvement of the quality of teaching university staff.

KEYWORDS

Higher education, third generation university,
modernization of education, graduates, employers,
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Introduction

Since the mid XX century the human society is experiencing dramatic changes of socio-cultural and environmental conditions of its existence and functioning. The formation of a new type of society in the second half of the twentieth century, characterized by the researchers as a post-industrial (Bell, 1973); informational (Masuda, 1983; Castells & Himanen, 2004); individualized (Bauman, 2001); risk society (Luhmann, 1991; Beck, 1992); the society where concepts of "labour" and "capital" are replaced by the concept of "knowledge" and

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"information" (Toffler, 1980; Mansell, 1998); a learning society (Hutchins, 1968; Husen, 1974); the century of bifurcations (Laszlo, 1991), etc., caused the necessity of change and educational paradigm throughout the world, including Russia.

The analysis of the context of transformation identified an enhancing role of education and training at the personal level, typical for a new type of society (Levy, 1966; Inkeles, 1976; Dahrendorf, 1979; Kumar, 1988; Naisbitt & Aburdene, 1990; Giddens, 1990). The modern consumer of educational services is focused more on producing practical, utilitarian knowledge, skills, competencies, and to a lesser extent - the universal theoretical knowledge. In recent decades in most industrialized countries modernization of higher education is gathering pace which is expressed firstly, in the transition to the "third generation university" models (Wissema, 2009). This process is also associated with the onset of the era of "academic capitalism" (Slaughter & Leslie, 1997) which refers to the market or marketlike activities of universities and professors who attract foreign funds. In fact, a fundamentally new economic and social situation has emerged where universities turned out to be (Ropke, 1998; Clark, 1998; Etzkowitz, 2008).

New conditions are characterized by the reduction of public funding; growth of the scale of higher education; a desire of young people to be involved in personality-oriented education; increasing consumer demands for the quality of educational services and scientific research; loss of stability in the sphere of content and educational technologies; the necessity for high performance and quality of pedagogical work and academic work of students; the need to ensure mass participation of students in the creative and research work and entrepreneurship.

The third generation university is a multiform, intensively developing training, research and innovation complex, adaptive to the needs of the environment, generating scientific and technological innovations oriented to meet customer demands for basic core markets. Such university located at the crossroads of research, education and innovation, in many respects holds a key to the knowledge economy and the knowledge society, being the major institution that provides interaction between academic and economic worlds through such structures as science and technology parks, technology transfer centers, incubators for young entrepreneurs.

The product of the third generation university must be a specialist, not only knowledgeable, but also capable of exploring and solving problems, as well as able to bring the results of his/her research to the sale, that is potentially having entrepreneurial instincts, motivated and capable of intellectual entrepreneurship to generate new knowledge.

Summarizing the theoretical development of Western and Russian scientists, progressive university experience, the following characteristics of a new generation universities that contribute to the formation of a new generation can be revealed:

- university as a center of technology transfer to identify commercially interesting results, developing strategies of commercialization of the product and its protection procedures; as a science park, which allows students to practice assessing their business opportunities and technological sphere and determine their future professional strategy; both teaching and counseling

centers focused on accumulation of activities related to the educational process and consulting activity in this area; as incubators for start-ups and funds for technology improvements;

- well-established academic, scientific and business relations of the university: associations with industry, other universities, cooperation with banks, accounting firms, various professional offices in the areas of consulting management, marketing, industrial property, business law;

- special philosophy of the university, intellectual, research, entrepreneurial culture, creating a special esprit de corps of the University;

- development of students' possibilities to realize themselves in various fields (science, industry, innovation sphere, business, entrepreneurship).

Modernization of the Russian higher education system inevitably faces a number of challenges. On the one hand, Russian government has made efforts to enhance the transition of Russian universities to a new generation university model: the development of large-scale government programs to create federal and national research universities, the program Top-100, involving actors and major universities in Kazan - Kazan (Volga region) Federal University, Kazan University (KFU), Kazan National Research Technical University named after A.N.Tupolev - KAI (KNRTU-KAI), Kazan National Research Technological University (KNRTU), etc. But in practice, the implementation of many programs and government regulations is often implemented only formally, without achieving significant results.

In order to optimize the processes of transformation of higher education system it is necessary to monitor emerging problems, difficulties, regional features and demands of consumers of educational services and their products. The consumers of university "product", graduates, are primarily employers. They can objectively assess the achievements and the quality of the students' knowledge, skills and competencies, as well as the feasibility and effectiveness undertaken in higher education reform.

Research Methods

As part of the research project "Strategy development of socio-economic development of the Republic of Tatarstan for the period up to 2030" headed by O.A. Maximova in January-April 2014 expert interviews of the heads of personnel departments of large industrial enterprises of the city of Kazan and Tatarstan were conducted.

The purpose of the study was to identify the key problems of higher education in Tatarstan and discuss the opportunities of its resources for the purpose of regional and local socio-economic development. Multidimensional nature related to the stated theme of problems led to the choice of the key directions, covering the whole range of interrelated issues - namely, the relevance of higher education to the needs of the regional economy and labour market.

Taking into account the overall objective of the project, promoting competitiveness of Tatarstan higher education and its role in the development of the region, the sociological study objectives were to answer the following key questions:



- What is the extent to which the results of higher education system meet the needs of the regional economy and labour market. What are feedback mechanisms?
- How do employers acting as consumers assess the quality of graduates of regional universities?
- What are the advantages and disadvantages of Tatarstan universities from the perspective of service users?
- What is the extent to which existing conditions enable enterprises to attract and retain highly qualified personnel?
- What is the extent to which under the current system the scientific and research activities of students are stimulated?
- How do universities train to work in a creative and innovative economy?

The employers of the Republic of Tatarstan presented by the human resources departments of large industrial enterprises of the city of Kazan and the republic of Tatarstan were the object of the study. The selection of experts was due to the leading position of enterprises both according to the total number of employees, and the number of graduates recruited each year. Totally, in the course of study 30 informants were questioned using the method of in-depth interviews. Expert opinions and assessment of the quality of higher education and its relevance to labour market needs became the subject of the research.

Research tools represented a guide interview which includes the following thematic units:

- the most employer demanded specializations;
- the range of staff problems in the enterprise / organization;
- the degree of satisfaction of employers by graduates (in universities, professions and knowledge / competencies), the reasons for dissatisfaction;
- characteristics of the organization of working practice of students in the enterprise, assessment of its effectiveness;
- suggestions for improvement.

Data processing was carried out by the method of narrative analysis. Besides, the analysis of the text includes the most revealing characteristic of this community, excerpts from the interview.

Results and Discussion

The survey showed that the main suppliers of personnel for technical specialties to Kazan industrial enterprises are basically specialized higher schools. Federal University graduates holding mainly economic profile positions at the enterprises were mentioned less frequently. Staff requirements of the regional (non-capital) enterprises are generally satisfied with graduates of local branches of Kazan universities or regional universities.

As employers explained, there is a prevailing distribution profile for the industry majors between universities, when only one institution in the region trains specialists of a certain profile. Such profiling has certain advantages in the form of accumulated experience of training, existing relationships between specialized departments and employers. On the other hand, in Tatarstan there is practically no competition between higher education institutions in training specialists for specific industries, and as a result, employers have virtually no

choice, they have to employ graduates of a definite institute, even if they are not satisfied with the quality of their training. For example, one respondent said: "They [graduates] satisfy, but I must honestly say that much is left to be desired ... because the enterprise requirements are growing ... There is so far only one professional and profile institution in Kazan, and so we have little choice ... "(Informant 1).

The results of the study indicate that the situation of saturation of the labor market with experts of various profiles is differentiated according to the specific sector of the economy. According to the interviewed experts, the majority of industrial enterprises and other organizations of the city do not have enough engineers of various profiles (engineers, designers, electricians, electronic engineer etc.).

According to the experts, the shortage of specialists is not due to the fact that they do not graduate from the universities of the Republic of Tatarstan, but they are reluctant to work in enterprises, due to the low salary and the specific conditions of labour ("clockhouse", intense rhythm of work, dangerous production and so on). University graduates with a technical profile prefer to seek employment in the service sector with a comparable level of payment, but much easier conditions of activity. According to the informant, "... the guys having graduated from the university, work as sellers. They have almost the same salary. But here, for the same money people have to pass tests on safety and all the instructions, they are constantly learning, improving their skills! ... Half of the installations are located outside, we have quite a tough regime object, the checkpoint ... "(Informant 2); "Unfortunately, they are not interested in factories. That is, they learn, but for some reason go in for commerce ... "(Informant 1).

A somewhat different situation is with the specialists of IT-sphere, the lack of them is also mentioned by the informants. According to experts, Tatarstan universities do not train enough such specialists and they do not always have an appropriate level of training. And as qualified IT-sphere specialists are in demand, even increasing their level of payment, companies are not able to retain their staff.

However, most of the experts emphasized that their businesses experience primarily shortage of skilled workers with primary and secondary vocational education, noting as one of the reasons for increasing access to higher education and, as a consequence, reduction of the number of school leavers choosing a profession " ... we have... shortage of specialists with primary vocational education (turners, millers, gear cutter, service-technicians). It is not only us who have this problem, but many enterprises"(Informant 3).

A number of enterprises recruited specialists with higher education on the working profession: "By the way, we have a lot of workers with higher technical education" (Informant 3).

Also interviewed experts pointed out the prevalence of the practice of hiring people with a non-core education followed by retraining into workers' professions: "... because they cannot get a work on a specialty. And they are ready to work as workers. We ... send them for training to acquire a working profession. I do not want to say that there are a lot of them, but there are "(Informant 4).



The study found that the graduates' selection procedures vary depending on the profile of companies and their traditions. In industrial factories traditional methods are usually practiced - an interview with the head of the personnel department and relevant specialists. It is noteworthy that the majority of experts did not hide the fact that very often the most attractive office professionals are hired on the basis of protectionism - "contacts". At the same time the CEO of one of the large enterprises, even praised this approach as unconventional, innovative, "I follow a non-traditional tactics - employ only on the advice, from the same circle, that is reliable" (Informant 5).

According to the study, the overall assessment of the level of Tatarstan graduate applicants for vacant positions has a number of complaints from the side of the employer. And the essence of the claim is not only to the low level of theoretical and practical training, but motivation of the younger generation. Employers noted an overestimated level of demands of young people in terms of a job positions and material reward, not supported by real knowledge, working skills, qualifications and experience. Informants noted that excessive financial ambitions of young professionals are expressed not only in the high wage demands, but also in having larger salaries immediately, without confirming qualifications. Young graduates are not ready for a long methodical work, respect for the hard work schedule, gradual career growth: "Interviewer: But you said - not many students stay who had a placement, from those who had working practice, they do not stay, because they have no desire? Informant: "They have no desire. Because it is still a production, hazardous production facilities, they see the work, besides they are hired as ordinary workers, and a student learns five years – he/she still expects to hold a position that corresponds to the diploma... ." (Informant 3).

One of the most frequent criticisms of the hired professionals is that they have shallow knowledge, do not have a systematic way of thinking, are not able to formulate and analyze the problem on their own. And informants noted the growing negative tendency: "... five years ago, the students, who came after the 4th course, knew what is "to describe the technological process". "Modern graduates do not even know this. Unfortunately..." (Informant 7).

Employers noted such issues as the outflow of talented young people from the region in general, and from the production sector due to the lack of competitiveness with the business sector in terms of remuneration, "... the children who study well, have a high educational level. Well, they graduate with high score - they do not want ordinary profession. And those who are middling - well, they come with the same shallow knowledge. It used to be so in the past as well. However, in the past the percentage of employment of the best students was higher. There were opportunities to give a salary raise. Now, in the crisis, it is more and more difficult " (Informant 25). Note that this statement belongs to the representative of a fairly stable enterprise.

According to informants, the reason for reducing the skills of self-analytical thinking, creative approach to solving problems is the spread of consumer culture among the youth in the conditions of rapid development of information and communication technologies. As a result, there is an increase use of the skills of the ultimate product, while self-motivation is decreasing.

Underdevelopment of working values, the absence of professional interest, as well as turning labour process only into making money - that is another

problem identified in the study: "... work, love of work, the need to work, so to speak, at the beginning stage. Some come - they do not have even the concept that only can achieved something ... They need to become leaders immediately, earn a lot of money, and they do not want to deal with, so to speak, working draft, although even in leadership positions there is rough work too ... They are not used and are not ready. Somehow they have an opinion formed in the head that if they receive a higher education, they will "just rest on our laurels," (Informant 8). This trend is typical of the consumer society as a whole, and is fixed by researchers and other countries in the second half of the twentieth century (Baudrillard, 1974).

Experts gave a rather critical assessment of the transition of Russian higher education to a two-level system of training for Bachelor's / Master's degree within the Bologna system. As it is known, one of the main objectives of the Bologna process is the formation and strengthening of intellectual, cultural, social and scientific and technological potential of university education in the countries that have acceded to the process. The adoption of the Bologna Declaration expresses at the same time the search for a joint approach to the solution of common problems of higher university education in the participating countries. Joining the Bologna Process Russian universities have been designed to provide high quality higher education and the necessary conditions for the employment of graduates as academic degrees and other academic qualifications are focused on the labour market (Maksimova & Hamzina, 2015). However, as it is shown by the results of our study, employers have not formed a clear position on this issue yet. Thus, a number of informants noted that the level of bachelor is almost comparable to the level of secondary vocational education institution, despite the fact that the latter is more in demand by industrial enterprises, as colleges have prevalent practice- oriented training, while universities continue to focus on theoretical training. Informants noted that for the working profession they would rather hire a secondary vocational college graduate, but as an engineer -a specialist or master's degree graduate, but not a bachelor. Comparing the specifics of training specialists and bachelors, employers have noted a significant reduction in the volume of practice of the latter that, in their opinion, reduces the level of practical training of graduates: "We are used to specialists. This level is just sufficient to work in our company. Bachelor is not enough, and master is not understandable. There's a sort of scientific work to be done... well, what is scientific work, somehow, even in practice, they are doing something - I do not understand. This is a transition period. It is not adapted to our conditions, may be later it will be better ... And the bachelor, I believe - this is the college level. That is, as it was. This is even less than college ... A specialist – he is stronger. For example, my specialty - five years and six months, in fact, a long enough period of practice, specialization, because three years -general education subjects. And the fourth one, undergraduate course, it is impossible to acquire a profession "(Informant 13).

It should be noted that a large-scale survey of the students on this aspect of the reform of the Russian education, showed that a significant proportion of respondents (39.6%) believes that the transition to a two-level system of bachelor's / master's and non-traditional for the Russian educational practice specialties is led to a decrease in the quality of education. Only one tenth of the respondents (9.4%) hold the opposite point of view, noting that the reforms have led to the improvement of quality (Laukart-Gorbacheva & Maksimova, 2015).



The informants-employers expressed the opinion that since the period of study of the undergraduate is reduced in comparison with specialists, the number of "unnecessary" subjects must also be reduced: "... we bachelors started to come to us ...They are coming, but luckily, specialists still hold our major positions. Because, in principle, well, actually there to say that they are much worse or something else, cannot be, but there are some moments when there are special subjects that they study in the magistracy, that without these special subjects it will be much more difficult to work, and a lot more ... documents will have to be changed. As this system in the West, as I understand it, practically replaces the secondary vocational education. That is, for example, a bachelor can become a foreman, but he will never be the leading designer, and so to speak. But to be a foreman it is not necessary for it to study Russian, Tatar, English, history of his native land, which is put in these four years, rather than something specified. During the first years, of course, there is what not, a healthy lifestyle and physical culture, and everything that the profession has nothing to do with. They usually begin with the third year, that is, it turns out that it is only a couple of years to study. Accordingly, it is easier to just go to college, so simple, when it comes to recruitment knowledge that he will get it during the same two years, and not something else for the overall development. As cultural science knowledge is not the most important "(Informant 9).

Thus, the results of the study show the unwillingness of employers to hire bachelors as professionals with higher education. At the same time we carried out an analysis on the national press which revealed an active public debate on this issue. In this regard, we can recommend the republican authorities in conjunction with the university community to strengthen the popularization of the direction of modernization of higher education. At the same time universities need to take into account the comments of employers and adjust the curriculum of bachelors, have more emphasis on the practical side of training to a particular profession and specialty.

The study also investigated the interaction of the system, forms of cooperation of the enterprises / organizations with universities in the country. Expert surveys among employers and universities have shown that such cooperation takes place, but in a limited, local scale.

The majority of the companies said they do not refuse to provide working positions for practical training of students. The large industrial enterprises, as a rule, do it in an organized manner "with the universities in the first place, we conclude an agreement on joint activity for five years, which stipulate the number of graduates, which we can employ upon graduation from this educational institution, and how many students will be held in our practice, in our company. Also, we make an annual contract already with a specific number ... in specific departments, therefore, have a distribution of units, that is, we make a lot of preparatory work ... They identify their special subject, and accordingly we direct them to our subdivisions for working practice, where leaders.... are appointed, respectively, as the heads of the practice from the university and from our company, and when they are having practice, our leaders are looking at these students, so that later, if possible, of course, not such a large number of students, yes, stay and work, but, nevertheless, the work which is carried out, so to say, is career-oriented "(Informant 23).

However, the attitude of university students for an internship does not always correspond to the needs of employers. For example, one of the companies is ready to accept students for internship even on payment conditions with the prospect of future employment, but students use this opportunity only to write a diploma successfully using the company, and then to find a job in a completely different field: "Or these girls and guys are so educated, or such is the system of training, which is, they do not really need scholarships... they come here something grab from the top, that the company constantly has the know-how, they will write about it, have a diploma, and then all – vanish. Gone in for commerce "(Informant 7).

However, it should be noted that in the course of interviews with the representatives of the teaching staff of universities there were claims to companies on the organization of student's practice. It was stressed that although there are signed contracts, the practice in some cases is a mere formality, the students are not given a real opportunity to prove themselves in the workplace. The same trend is observed by one of the informants, stating the fact that due to the complexity of the legislative procedures the university cannot pay to the head of practice of the company where the students work, and, as a consequence, the latter motivation is significantly reduced: "In the past the practice was stimulated by the factory and college funds. For each trainee it was paid... ". Interviewer: "Was the Institute paid or a trainees? "Informant: No, not trainees, those who were engaged in the practice. So, then they stopped paying at all ... Before, here we had a lot of people watching and diplomas were made in the factories ... I'm telling you now about the trends, they are sad "(Informant 15).

There was a critical assessment of themselves in the statements of informants: "Here on the one hand, there is a fault of the employer in relation to such trainees. Because when you realize that people come to work for a month, they do not give particularly large working load. He should come, do some minimum task "pencil whip" to do something - or somebody formally signed the sheet of paper for practice. And, in fact, he does not penetrate into it ... he does not want to mess around with the young, really - because it is time, and time is money. And if this man came to practice without a desire to stay in the organization, as a rule, he is not interested in "(Informant 11).

Thus, despite the formal relationship between universities and enterprises, having practice in a number of cases is formal, without contributing to further motivation of graduates for employment in the enterprise.

Even more difficult is the case with the joint research projects of universities and enterprises - a sphere, which is one of the major components for the formation of the third-generation universities. Workers in most enterprises noted that there used to be scientific laboratories and even the department of specialized higher schools, but at present, the practice of interaction is reduced. Informants admitted that their enterprises due to financial difficulties are not ready to invest in scientific and practical development of universities, and they are not very confident in its effectiveness.

Interaction of the enterprises and universities for the training of young specialists is most effective when there is a constant exchange and adjustment of the needs of both parties in the context of the economic situation. The survey revealed that in this sphere there are several issues that need to be resolved.



Employers have expressed an interest in improving the speed and quality of adaptation of graduates coming to their enterprises. In this regard, many of them would like to participate in the correction of curricula, as well as joint management and evaluation of the quality of trained specialists.

As a result, according to informants, on a number of indicators including the level of practical skills, graduates do not always correspond to their requirements. Businesses are left to organize the training of young professionals in the first year of their employment. Among the forms of education respondents mainly mentioned the following: adopting a particular specialist (mentor), the specialization course on safety, the mastery of specific computer programs, training for the purpose of replenishing specialized knowledge.

Conclusion

Thus, on the basis of expert interviews with employers, we can formulate the following conclusions. Universities of the Republic of Tatarstan are preparing specialists for all major, necessary enterprises functioning in the region. However, experts have highlighted some of the specific, more narrow specialization which enterprises need, but whose preparation is not carried out to the required extent.

Among the specialists with higher education the shortage of engineers of various profiles and specialists in the sphere of IT-technologies is particularly acute. Moreover, the lack of the first ones is not due to the fact that they do not graduate from Tatarstan universities, and mainly low wages and difficult working conditions in most industrial plants. The lack of the second ones is due to their demand at the national market, as well as in commercial structures with significantly higher levels of remuneration. At the same time employees of enterprises noted the apparent oversupply of the specialists of economic and legal profiles.

Employers tend to prefer graduates of state universities of the republic to commercial ones and among public universities training students for similar professions - students of those universities and institutions where specialties are traditionally profile, in particular, and due to the lack of choice.

The most important criteria for the selection of young professionals are the following: relevant special diploma profile to further work (especially for industrial enterprises), full-time education and work experience in the specialty.

Among specific areas of cooperation between enterprises of the republic with universities firstly, is an admission of students for a period of practice (in the organized and unorganized forms), followed by the organization of study tours to the company. Virtually, joint research projects are not developed, as well as company's involvement in the development and adjustment of educational plans of universities, in the management and evaluation of the quality of trained specialists.

Practical recommendations of the expert for improving the quality of training of young specialists by universities of the Republic of Tatarstan are as follows:

- the necessity to strengthen relations of universities with specific companies which they are training specialists for;

- improving the system of practical training of students, the cooperation of the universities in terms of additional employment of students at specialized enterprises by adapting the curriculum so that students have the opportunity to combine study with work on their specialty;

- the importance of involving experts of the enterprises in the educational process;

- the need to update training courses, the use of new techniques and technologies in the learning process;

- improving the quality of the teaching staff of universities by attracting young professionals, the organization for their training, additional training.

Among the reasons for the reorientation of university graduates with specialization in another profession, experts named the following:

- low level of wages in the industrial sector;

- formal educational motivation in students when the only motive is getting a diploma of higher education;

- lack of in-depth knowledge and practical skills in the specialty obtained in higher school.

According to the study, Tatarstan universities, as part of the Russian educational system are not yet fully ready to become full members of the third generation university system. However, the positive developments in this direction are already present. How smooth will the interaction between the educational system and the productive sector be, in many respects depends on how successful the process will develop in the future.

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References

- Baudrillard, J. (1974). *La Société de Consommation: Ses Mythes, Ses Structures*. Paris: Gallimard, 318 p.
- Bauman, Z. (2001). *The Individualized Society*. Cambridge: Polity, 272 p.
- Beck, U. (1992). *Risk Society: Towards a New Modernity*. London: Sage, 272 p.
- Bell, D. (1973) *The Coming of Post-Industrial Society: a Venture of Social Forecasting*. New York: Basic Books, 507 p.
- Castells, M. & Himanen, P. (2004). *The Information Society and the Welfare State: The Finnish Model*. Oxford: Oxford University Press, 216 p.
- Clark, B. (1998) *Creating Entrepreneurial Universities: Organization Pathways of Transformation*. Guildford: Pergamon, 163 p.
- Dahrendorf, R. (1979). *Life Chances*. Chicago: University of Chicago Press, 272 p.
- Etzkowitz, H. (2008). *The Triple Helix: University-Industry-Government Innovation In Action*. London: Routledge, 180 p.
- Giddens, A. (1990). *The Consequences of Modernity*. Cambridge: Polity Press, 188 p.
- Husen, T. (1974). *The Learning Society*. London: Methuen, 268 p.
- Hutchins, R.M. (1968). *The Learning Society*. Santa Barbara: Praeger, 461 p.
- Inkeles, A. (1976). A Model of the Modern Man: Theoretical and Methodological Issues. In C.E. Black (Eds.). *Comparative Modernization*. New York: Free Press, 320-348.
- Kumar, K. (1988). *The Rise of Modern Society: Aspect of the Social and Political Development of the West*. Oxford: Basil Blackwell, 338 p.
- Laszlo, E. (1991). *The Age of Bifurcation: Understanding the Changing World*. Philadelphia: Gordon & Breach, 126 p.
- Laukart-Gorbacheva, O.V. & Maksimova, O.A. (2015). Problems of domestic education in the evaluation of young generation. *Herald of Economics, Law and Sociology*, 4, 316-321.
- Levy, M. (1966). *Modernization and the Structure of Societies*. Princeton: Princeton University Press, 855 p.
- Luhmann, N. (1991). *Soziologie des Risikos*. Berlin: de Gruyter, 252 p.
- Maksimova, O.A. & Hamzina K.A. (2015). Adaptation of management of university education to the conditions of the Bologna Declaration. *Herald of Kazan National Research Technical University named after A.N. Tupolev – KAI (KNRTU-KAI)*, 71, 213-234.
- Mansell, R. (1998). *Knowledge Societies: Information Technology for Sustainable Development*. Oxford: Oxford University Press, 323 p.
- Masuda, Y. (1983). *The Information Society as Postindustrial Society*. Washington: World Future Society, 171 p.
- Naisbitt, J. & Aburdene, P. (1990). *Megatrends 2000: The New Directions for the 1990's*. New York: William Morrow, 384 p.
- Slaughter, S. & Leslie, L.L. (1997). *Academic Capitalism: Politics, Policies, and the Entrepreneurial University*. Baltimore: Johns Hopkins University Press, 276 p.
- Ropke, J. (1998). *The Entrepreneurial University: Innovation, Academic Knowledge Creation and Regional Development in a Globalized Economy*. Direct access: <http://www.wiwi.unimarburg.de/Lehrstuehle/VWL/Witheo3/documents/entreuni.pdf>
- Toffler, A. (1980). *The Third Wave*. London: Bantam Books, 448 p.
- Wissema, J.G. (2009). *Towards the Third Generation University: Managing the University in Transition*. Cheltenham: Edward Elgar Publishing, 252 p.