

Investments in education system – do the results correspond to the expectations?

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ABSTRACT: The article deals with the problem of economic investments in education system in the case of the Republic of Tatarstan and the problem of their effectiveness from population perspective.

INTRODUCTION

The present-day political situation in the world makes a fresh look at the prospects for economic and social development of Russia. In modern conditions of global competitiveness of economic systems we need to develop our own potential in technology and innovation, and the main source of development in these areas are the people - the human capital of the society (Palei & Salakhadinova 2013). The success of human capital development largely depends on the functioning effectiveness of social institutions in the society, and in particular - Institute of Education [5]. The authorities of the country and regions fully realize the importance of the problem and are aimed at searching the ways of more effective problem solving of the human capital development in the society, however not always management efforts have achieved their objectives [3]. The education system of modern Russia for decades have been living and working in terms of reforms, but their results do not satisfy neither the government nor the employers, nor the participants of the process - students, their teachers and parents.

MATERIALS AND METHODS

The main methods of the research on the investment effectiveness in education were the analysis methods of absolute and relative values for statistical indicators, the method of finding the average values for statistical indicators [4] and the questionnaire method. The purpose of the study was to analyze the efficiency of investment in education in the region by comparing the results of the public opinion study on the republic as provision of educational services in preschool, school and higher education, and statistics on investments in these areas. There were analyzed statistical yearbooks for 8 years in the Repub-

lic of Tatarstan. We conducted a questionnaire survey of the population from 2005 to 2013 years in all administrative entities of the Republic of Tatarstan (n = 2,186 on each stage of the study) [1, 2]. There were total surveyed 13,116 people aged 18 years and older. The sample set is formed by multi-regionalized quota sample. Error representativeness of the sample was 5%. The accuracy of the study results has been provided by the selection procedure on the surveyed units of the research, the results of which were subjected to 20% of the control sample. The survey was conducted in the way of formal interviews.

RESULTS AND DISCUSSION

The education system is a sphere of society, that requires constant, and at the same time a significant investment. The average value percent of investment in education in the Republic during the observed years was 2.33% of the total investment (for example, investment in health is 2.7%) (Tabl. 1, Fig. 2). It should be noted that the absolute value of the investments in this area is increasing, and in percentage to the total volume of investment in the economy retain its proportion and ranges from 1.4% to 3.5%. Furthermore in 2005 the proportion of investment in this area reached its maximum value - 3.5%. In the subsequent years, the proportion decreased and fluctuated in the range of 1.4% -2.6%. (Tabl. 1, Fig. 2).

Let us analyze the main statistical indicators of investment in the economy of the Republic of Tatarstan during 2005-2012 years. As we can see in Table 1 and Fig. overall dynamics of investment during this period tends to increase. This means that our region has investment appeal and developed dynamically in this period. A slight decrease was observed in 2008-2009, due to the global economic cri-

sis. The average value of the investment growth rate in the economy amounted to 19.24% (Tabl. 3). Thus, we can conclude that we are in the stage of expanded reproduction of the economic system.

Table 1. Investments in education in absolute and relative terms in the Republic of Tatarstan [6-13]

	2005	2006	2007	2008
Investments in education, mln. rubles.	4703.7	3577.4	4769.2	6352.4
Investments in education, % to total	3.5	2.2	2.2	2.3
Total investments in the economy, mln. rubles.	139360.5	160605.8	214557.9	273098.1
Total investments in the economy, % to total	100	100	100	100

	2009	2010	2011	2012
Investments in education, mln. rubles.	3808.1	8032.1	9082.4	10138.4
Investments in education, % to total	1.4	2.6	2.3	2.2
Total investments in the economy, mln. rubles.	277573.2	306019.6	393568.5	464744.9
Total investments in the economy, % to total	100	100	100	100

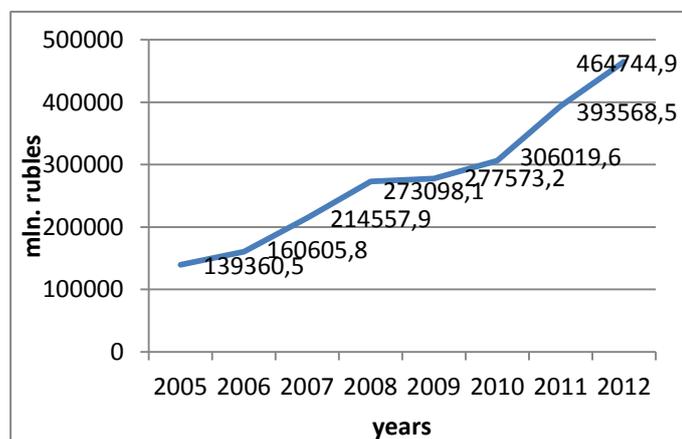


Figure 1. Investment in the economy of the Republic of Tatarstan during 2005-2012 years

The increase of investment in education is not a real increase in investment in this sector, but the activation of the general investment policy of the Republic of Tatarstan. Thus, we can conclude that the absolute value of the investment increases in these spheres, and in percentage of the total amount of investments in economy maintains their proportion and fluctuate from 1.4% to 3.5% (Tabl. 1, Fig. 2).

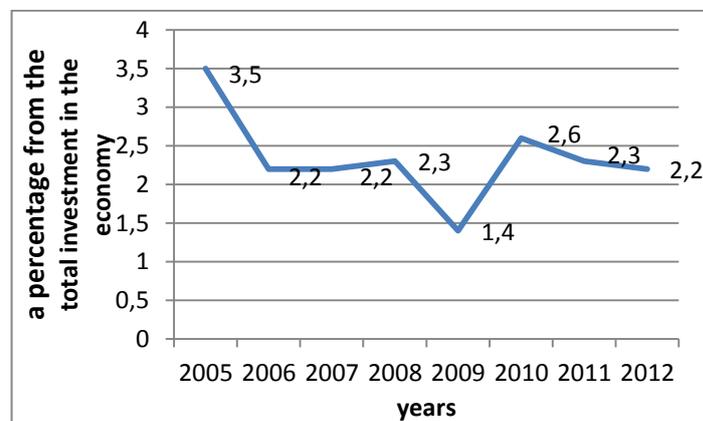


Figure 2. Investment in education as a percentage from the total investment in the economy [6-13]

Investments in education tend to develop rapidly. In 2006 compared with 2005, there was a decrease of investment in this area by 23%, and in 2009 compared to 2008 by 40%. In other periods, there is an increase of investments, particularly large increase demonstrates 2007 in comparison with 2006 and 2008 compared with 2007 - 33.31% and 33.19%, respectively. This was due to the implementation of the government program for social development, including education. But the highest growth rate shows 2010 compared with 2009. During this period, there was launched a program of capital construction for kindergardens. The average annual growth rate of investment in education was 19.73%, that almost correlates with the average growth rate in the economy (Tabl. 2, 3; Fig. 3).

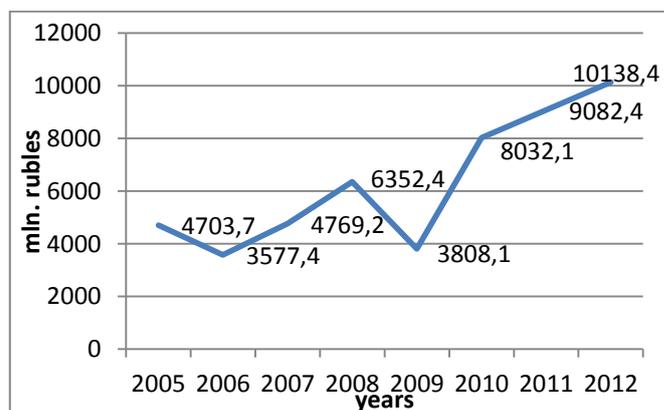


Figure 3. Investment in education (million rubles.) [6-13]

Table 2. Investment growth rate in the economy and education in the Republic of Tatarstan

	2006/ 2005	2007/ 2006	2008/ 2007	2009/ 2008	2010/ 2009	2011/ 2010	2012/ 2011
Investments in education, percentage	76	133	133	59	210	113	111
Investment in the economy, percentage	115	133	127	101	110	128	118

Table 3. The growth rate of investment in the economy and education, and the average annual growth rate of investment in the economy and education in the Republic of Tatarstan

	2006/ 2005	2007/ 2006	2008/ 2007	2009/ 2008	2010/ 2009	2011/ 2010	2012/ 2011	Average growth rate
Investments in education, percentage	-23	33	33	-40	110	13	11	19.73
Investment total in the economy, percentage	15	33	27	1.63	110	28.	18	19.24

How are the investments in education system reflected in public opinion?

In preschool education a proportion of the satisfied people with the quality of education tends to increase - 71.5% (2007 - 56.0%, in 2008 - 63.3%, in 2009 - 69.0% in 2010 . - 70.3%). The proportion became particularly evident since 2008, when in the country there was declared a direction on fertility support in order to improve the demographic situation. The government began paying attention to the problems in the system of preschool education for children - quite heavily focused on the need to provide every child with a place in preschool institutions and for this purpose in the country there were built and put into operation a large number of kindergartens (Fig. 4).

With regard to the school system, the proportion of people satisfied with the quality of secondary education tends to decrease. This is primarily due to the requirement strengthening for writing the final qualifying work – Unified State Exam. Alongside with the increasing requirements for knowledge of school graduates, secondary education system faced with a shortage of qualified staff who have left in large numbers from this sector due to the low level of wages in the reformation years (Fig. 5).

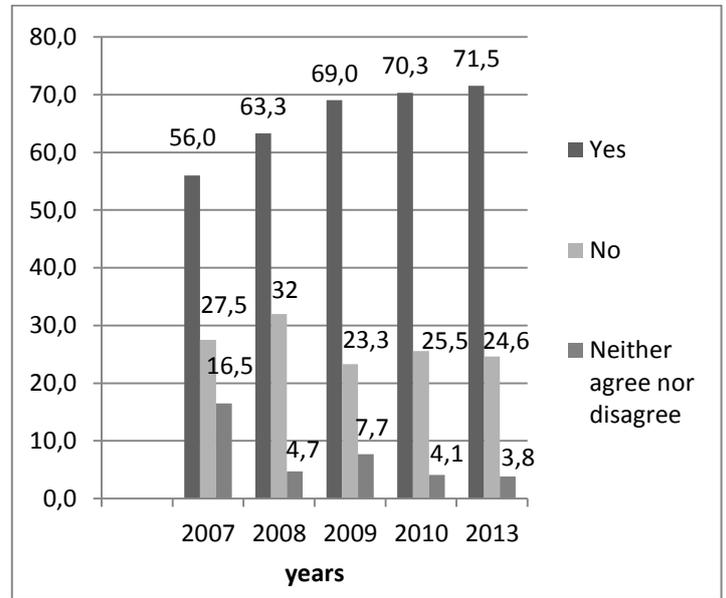


Figure. 4. Distribution of the respondent answers to the question: "Are you satisfied with the quality in pre-school education?" (as a percentage to the number of respondents with children under preschool age)

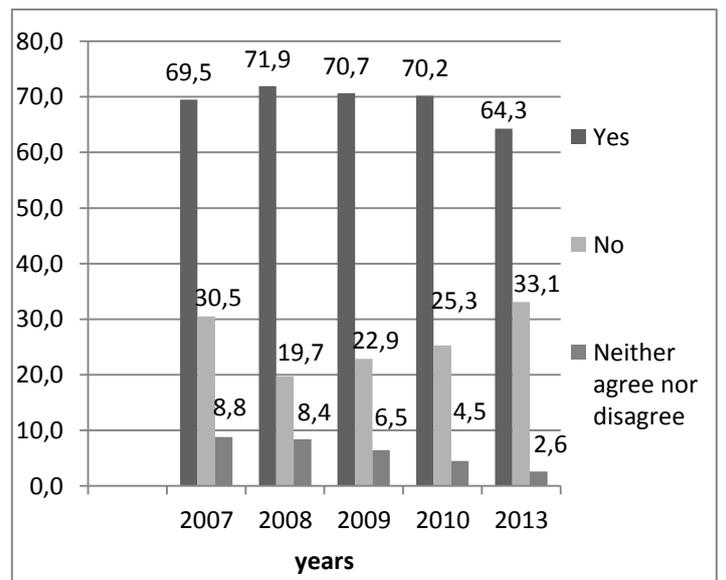


Figure. 5. Distribution of the respondent answers to the question: "Are you satisfied with the quality of school education?" (as a percentage of respondents who have school-age children)

Answering the question: "What kind of problems in the school system are you most worried about?", the respondents primarily indicate poor quality of teaching (72.1%) and low qualification of the teachers (41.5%). It should be noted that dissatisfaction with the quality of education is increasing from year to year (in 2005 - 22.2%, in 2007 - 38.4%, in 2008 - 41.7%, in 2009 - 54.1 %, in 2010 - 65.3%, in 2013 - 72.1%) (Fig. 6).

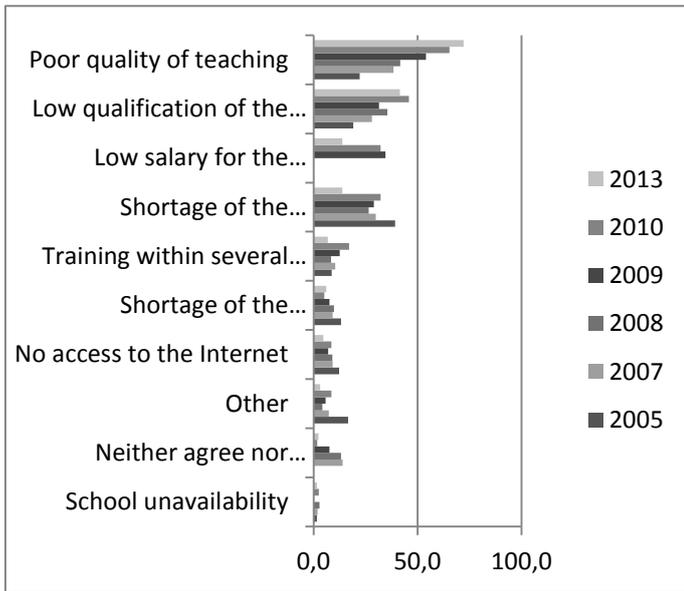


Figure 6. Distribution of the respondent answers to the question: "If you are not satisfied with the quality of education, what is the reason?" (as a percentage to the number of respondents dissatisfied with the quality of education in secondary schools from among those having the children of school age)

In regard to the higher education there is a positive trend - the proportion of people satisfied with the quality of higher education is increasing - 76.0% (2007 - 54.9%, in 2008 - 59.2%, in 2009 - 62.7 %, in 2010 - 65.6%). It can be explained by the growing interest from the government side in recent years to the quality of vocational education and a desire to solve the problem of qualified personnel shortage, particularly in the manufacturing sector. To solve the problem there are taken the broadest measures - from the introduction of different innovative educational technologies, to a significant expansion of the experimental base at universities, creating educational and industrial clusters based on the largest universities and industrial giants. A large share of investments is directed to involve well-known scientists into the educational process of universities. Generally, all these and many other measures are working towards improving the image of higher education in the country and in the region (Fig. 7).

However, the higher education system has serious problems that prevent it to operate at full capacity and address the challenges posed in front of it by the government. Thus, according to our study results, it is primarily a problem of corruption in higher education.

Among the respondents dissatisfied with the quality of higher education 44.9% experienced corruption in the process of studying in high school, and each third of them (32.3%) - even while entering the university. 35.2% of the respondents dissatisfied with the quality of education at the university believe that universities do not allow them to get a higher-grade education.

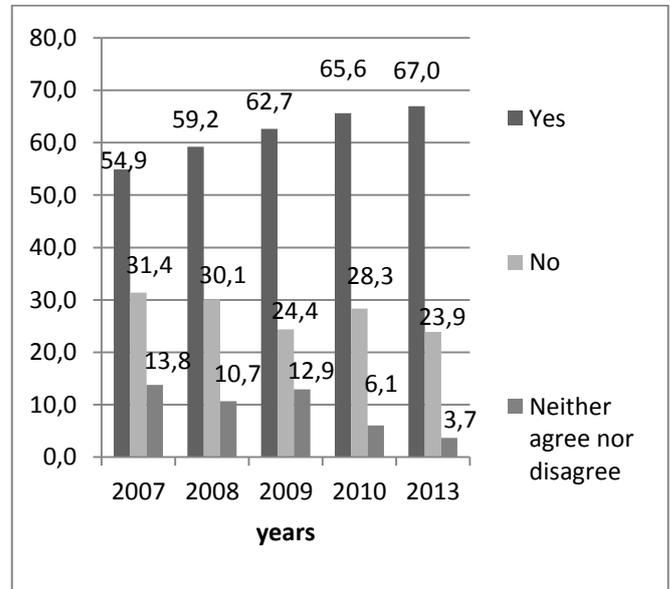


Figure 7. Distribution of the respondent answers to the question: "Are you satisfied with the quality of higher education?" (as a percentage to the total number of respondents enrolled in institutions of higher education, as well as parents of students)

According to the opinion of 32.4% of the respondents, higher education remains inaccessible to children from low-income families, although the proportion of these respondents is reducing from year to year (in 2005 - 66.3%, in 2007 - 55.1%, in 2008 - 63.0%, in 2009 - 46.5%, in 2010 - 44.9%), as a result of the introduction of the unified state exam system (Fig. 8).

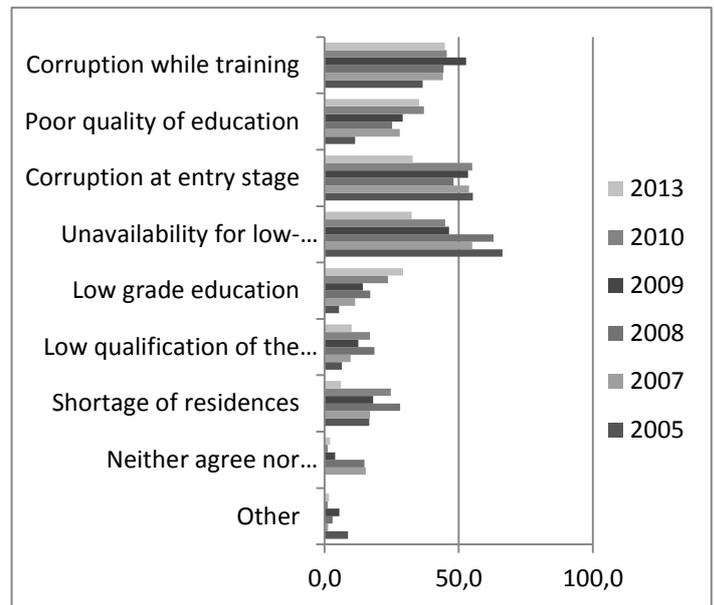


Figure 8. Distribution of the respondent answers to the question: "If you are not satisfied with the quality of education, what is the reason?" (as a percentage to the number of the respondents dissatisfied with the quality of education in higher education among those having children being students and the students from universities themselves)

CONCLUSION

The performed analysis let us to affirm the existence of positive trends in the development of the education system in Tatarstan indicated in increase of investment volumes into this area and a slight increase in the proportion of satisfied people with the quality of education in universities and institutions of pre-school education. However, we found a problem of dissatisfaction growth with the quality of school education, related primarily to the lack of qualified school teachers, corruption of higher education sphere and its poor accessibility for children from low-income families.

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