

Financing Education Spending in the Context of Interbudgetary Relations in the Republic of Kazakhstan

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Educational capital obtained in the learning process is a combination of theoretical knowledge, practical skills, work experience, and personal characteristics that bring a person income during his career and stimulate further investment in education. The aim of the study is to reveal the critical aspects of republican and local financing of education in Kazakhstan and the prospects for its development. The methodological basis of the research is formed by a system of general scientific and unique research methods, i.e., synthesis, system-analytical analysis, and abstract-logical methods. The critical result of this work is the systematization of acquisitions within the framework of the researched topic and the study of the features of optimizing the decentralization of education financing in Kazakhstan. As a result, various options for maintaining the financing of education in the Republic of Kazakhstan were considered. The share of influence of the Kazakhstani government on the financing of this sphere was revealed. The ways of modernization and expansion of ways of financing the education system are proposed, namely, to increase the efficient distribution of financial resources at all levels of the budget system; increase the opportunities for educational institutions to raise additional funds through educational innovations, expand the list of paid services provided by such institutions; carry out decentralization of education, taking into account the characteristics of the regions, their production potential, and the demographic situation and the interests of territorial communities. The results of this research, as well as the conclusions formulated on their basis, are of significant importance for the scientific community and for financial experts and practitioners from the sphere of education and can influence the subsequent processes of reforming the financial provision of education in Kazakhstan.

Keywords: public administration; financial support; public spending; local spending; reforms

Introduction

Education and science are sectors that, developed in connection with the processes of globalization, form development on an innovative basis, taking into account the needs of the country as a whole and each individual. The rapid growth of information technologies, telecommunications, and the integration of education, science, and production, along with the country's dependence on global processes, highlight the need to study and adapt to

international trends. Simultaneously, fierce competition among educational institutions at all levels calls for a shift in development priorities in the scientific and educational spheres to ensure relevance, competitiveness, and innovation (AllahMorad, 2021; Jatkiewicz, 2021).

Reforming the education system is a crucial task for the Republic of Kazakhstan, as it aims to achieve its strategic goals and enhance its status as a modern state. Adapting the education system to current conditions is imperative in ensuring a high level of competitiveness in the economy, promoting economic growth, and fostering sustainable development. This urgency stems from the recognition of education's pivotal role in shaping the nation's future and empowering its citizens to meet the challenges of a rapidly changing global landscape. Today, financial investments in education are recognized as one of the most critical investments in human capital (Pakhomova et al., 2021b), which forces us to look for new approaches for solving the issues of state financing education as an essential component of human capital.

Financing education is the main lever of state influence on the transformation processes in educational institutions and the primary tool for achieving positive results in the education sector itself (Abylkassymova, 2020). Therefore, the government of Kazakhstan, as well as those of other countries, adopts systematic documents that regulate the development process of a particular field of activity at the state level. The Decree of the Government of the Republic of Kazakhstan No. 988: "On the approval of the State Program for the Development of Education and Science of the Republic of Kazakhstan for 2020–2025" (2019) aims to increase global competitiveness in education and science, promote universal human values, and integrate scientific achievements into the country's socioeconomic development from 2020 to 2025. Nevertheless, to further improve the quality of the use of budgetary funds in this industry in the future, it is worth considering in more detail how education expenditures are financed in the Republic of Kazakhstan.

A large number of scientists have engaged in the analysis of the state of the education sector in Kazakhstan. Among them, S.D. Shaimukhanova et al. (2012) is worth noting. Their work assesses the condition and path of development of the education system in the country since the collapse of the Soviet Union. However, the authors pay less attention to the problems of financing the industry. In turn, L. Duisembekova (2013) describes the features and prospects for developing the educational sector in the Republic of Kazakhstan and suggests methods for improving its condition. However, the author considers this issue too narrowly, offering solutions only to improve teachers' working conditions. The works of scientists who analyze the features of financing the education sector in other states also became important. Among these, it is worth highlighting Humatova and Hadjiev (2019), who describe the current situation in Azerbaijan; Le and Tran (2021), with an analysis of the situation in Vietnam; and Vera-Toscano (2013), with a review of data on education financing in the European Union (EU) countries. Consideration and use of the experience of other nations allow better advice on the development of this industry in Kazakhstan.

The main objective of this work is to evaluate the major educational projects in Kazakhstan, study the trends in the development of the education sector, and propose policy measures. This study focuses on the overall state of education in the country, including the reforms related to the allocation of public funds. The article fills a literature gap by examining interbudgetary relations and financial support for education in Kazakhstan. It highlights the significance of education for economic growth and sustainable development, proposing measures to ensure accessibility, quality, and efficiency in education financing.

Materials and Methods

The research methodology combines general scientific and unique research methods, i.e., the synthesis, system-analytical analysis, and abstract-logical methods. Synthesis allowed us to integrate various sources to obtain a holistic picture, and, with the help of system-analytical analysis, the authors managed to consider the object of research as a complex system,

revealing its dynamics and interdependence. The abstract-logical method allowed us to interpret the data with the help of reasoned inferences, which provided an in-depth study of the prospects of financial support for education in Kazakhstan, a comprehensive analysis of interbudgetary relations and implications for education policy.

A systematic review of the literature was used to argue the data in the article. The data meet two criteria for inclusion in the study: report on initial research findings and focus on using fundamental research in educational institutions, especially on practical results and regulations adopted in Kazakhstan. There are several reasons for using the literary approach. First, it should be noted that the system based on the study of the literature above is the most appropriate method for this study since it “improves knowledge and broadens the scientific and practical horizons.” In addition, the logical systematization and unification of the theoretical base are a fundamental basis for further research in this direction.

Thus, the primary sources of information were state regulations and long-term state planning documents [in particular, these are Law of the Republic of Kazakhstan No. 77-VII “On the republican budget for 2022–2024” (2021) and Law of the Republic of Kazakhstan No. 319-III “On Education” (2007), Budget Code of the Republic of Kazakhstan (2008), Decree of the Government of the Republic of Kazakhstan No. 988 “On the approval of the State Program for the Development of Education and Science of the Republic of Kazakhstan for 2020-2025” (2019)], as well as official methodological documents, books, monographs, scientific articles, and practical research of scientists. There were several reasons for using these resources since papers are an easily accessible database. In contrast, high-quality books can offer an overview of the field of study and an in-depth analysis of one subject.

The presented research work was carried out in three main stages. In the first stage, a system-analytical method was used, based on which a theoretical generalization was made of the current views of scientists in determining approaches to financing education in Kazakhstan and also outlining the main trends in this direction, which the state, through its functions, planned to put into practice to improve the system of management and financing of education in the synergy of the state and local levels, which will have a positive effect from such an implementation in the short- and long-term.

In the second stage, the synthesis method was used, which made it possible for the authors to form their own vision of financing education expenditures in the context of interbudgetary relations. This analysis also made it possible to assess the existing problems in this direction more deeply as well as to study the current situation that has developed in the educational sphere of Kazakhstan, in particular, in the context of its financial support from the state and local authorities. In addition, it was summarized that the models of public administration of education systems are thoroughly tested by time and the current directions of development of countries in the international social society, which forces states to borrow and update management models that will correspond to the rapid growth of education.

As for the final stage, based on the results obtained in the course of its effects, final conclusions were formulated, which will more effectively contribute to resolving the existing problems of financial provision of education in Kazakhstan at the state and local levels with a view to their proper coordination to achieve the desired result in this area.

Results

One of the tasks that the government sets for itself for the next six years is the introduction of a vertical system of management and financing of education, which is characterized by the achievement of three indicators, as presented in Table 1.

It is worth noting that, in the state budget of Kazakhstan for 2022, 1823.1 billion tenges are allocated to finance the Ministry of Education and Science of the Republic of Kazakhstan,

Table 1. The task of the State Program for the Development of Education and Science of the Republic of Kazakhstan for 2020–2025 is to “Introduce a vertical system of management and financing of education”

Outcome indicators	Unit rev.	Source information	2020	2021	2022	2023	2024	2025	Responsible executors
Share of public daytime general education schools that switched to per capita funding out of the total number of full-time schools	%	Reporting information	22.6	22.6	22.7	61.1	100	–	Local executive bodies, Ministry of Education and Science
Share of heads of higher education institutions who have completed advanced training in the field of management	%	Administrative data of the Ministry of Education and Science	20	40	60	80	100	–	Ministry of Education and Science
Share of spending on education and science from gross domestic product (GDP) (2019 – 3.8%)	%	Data from the Ministry of National Economy and the Ministry of Education and Science	5.1	5.6	6.2	6.6	68	7	Ministry of Finance, Ministry of Education and Science

Source: Compiled by the authors based on Decree of the Government of the Republic of Kazakhstan No. 988: “On the approval of the State Program for the Development of Education and Science of the Republic of Kazakhstan for 2020–2025” (2019).

which is 10.1% of all public spending (18062.7 billion tenge) approved by Law of the Republic of Kazakhstan No. 77-VII “On the republican budget for 2022-2024” (2021). Thus, it can be said that, in Kazakhstan, the level of spending on education is relatively acceptable. Still, at the

same time, its status is relatively low, given the current demographic situation and the peculiarities of improving the country’s socioeconomic policy. Consequently, the problem that exists today in the field of education increased the attention of the state and local authorities since, in the education system of Kazakhstan, expenditures are inherently mainly carried out by local budgets, which indicates the decentralization of the state education system. It should be noted that local budgets spend on average about 70% of all annual education costs on education. The regional (local) level of funding provides for the financing of educational institutions of the state, municipal forms of power on the ground, and the implementation of regional educational programs (Aryn & Issakhova, 2018). The scientific study of the financial support of education in the Republic of Kazakhstan gave the following results. Today, the financial support of the educational industry is one of the critical components of the public administration strategy of the Republic of Kazakhstan. When studying the relevant issues, there is a need to solve several problems, in particular:

- selection of primary development trends;
- determination and use of optimal sources of financial support;

Table 2. Critical areas of budget funds depending on the type of budget

Budget level	Direction of expenses
Republican budget	<ul style="list-style-type: none"> – general education of gifted children in state educational organizations; – holding extracurricular activities of national importance; – training of specialists with technical, professional, postsecondary postgraduate, and higher education in state educational organizations; – retraining of personnel, advanced training at the state level; – provision of textbooks and teaching materials for state secondary educational institutions.
Local budgets: – the regional budget, the budgets of the city of republican significance, the capital; – budgets of the city of district significance, village, town, and rural district; – district (cities of regional significance) budget.	<ul style="list-style-type: none"> – early childhood education and training, including health care; – primary, secondary, and general secondary education, evening education, as well as boarding schools; – purchase and delivery of textbooks and teaching materials; – additional education for children at the regional, district (city) levels; – training of specialists with technical, professional, post-secondary, higher, and postgraduate education, except for those financed from the state budget; – teaching children according to unique general education curricula; – education of gifted children in specialized institutions; – technical, vocational, and postsecondary education; – holding school Olympiads of the regional, district (city) scale; – retraining of workers and improvement of their qualifications, financed from budgetary funds at the local level; – training of participants in the electoral process; – examination of the mental health of children and adolescents; the provision of psychological, medical, and pedagogical consultations; – rehabilitation and social adaptation of children and adolescents with developmental problems; – logistical support; – state provision of children left without parental care, orphans, their compulsory employment and housing; – free, reduced-price meals for specific categories of students; – methodical work; – functioning of centers for adaptation of minors; – medical care for students and pupils of educational organizations; – organization in rural areas of free transportation of students to the nearest school and back.

Source: Compiled by the authors based on Law of the Republic of Kazakhstan No. 319-III “On Education” (2007); Budget Code of the Republic of Kazakhstan (2008).

- development and implementation of economic mechanisms for the rational use of available financial resources;
- ensuring the required level of interaction between state and local authorities in the context of the rational use of budgetary funds; and
- achieving effective interbudgetary relations in the context of reforming approaches to education financing (Sedykh & Yufanova, 2014).

Consequently, the implementation of reforms in the field of education is an urgent problem today for several reasons, namely:

- insufficient level of funding for the educational sector;
- inefficient use of available financial resources;
- imperfect legal support;

- obsolete material and technical base;
- high cost of credit;
- unfavorable investment climate; and
- the outflow of qualified specialists abroad and others.

In addition, it is advisable to constantly update the content of education and the organization of the educational process with democratic values, the fundamentals of a market economy, and advanced scientific and technological achievements, which also require certain financial costs (Fonariuk et al., 2023). To date, the development and implementation of state policy in the educational sphere are carried out by the Law of the Republic of Kazakhstan No. 319-III “On Education” (2007). In contrast, the financial resource for the functioning and development of education is laid down in the Law of the Republic of Kazakhstan “On the state budget” for the corresponding year [today it is Law of the Republic of Kazakhstan No. 77-VII “On the republican budget for 2022–2024” (2021)] regional and local budgets, and the directions of using budgetary funds in the educational industry are determined by the Budget Code of the Republic of Kazakhstan (2008). Thus, state funding of educational organizations is carried out at the expense of the republican (state) and regional (local) budgets, following all generally accepted requirements, standards, and norms, which are established at the legislative level of the Republic of Kazakhstan (Omirbaev et al., 2011) (Table 2).

Summarizing the above, it should be noted that the education system of the Republic of Kazakhstan is relatively centralized (decrees of the president, acts of parliament, and religious laws strictly regulate all levels of the country’s education system), where the Ministry of Education and Science of the Republic of Kazakhstan is the central responsible body of state power and works with four administrative levels:

- regional (regional) departments of education;
- municipal departments of education;
- district departments of education; and
- school level.

In addition, Table 2 shows that the 11-year compulsory education is financed from the republican budget. The oblasts are responsible for education in vocational schools, as well as in unique and specialized schools, and for the distribution of textbooks, the maintenance of school infrastructure, the provision of accessible and subsidized school meals for specific categories of students, and support for orphans. Local governments, accordingly, are entrusted with the primary responsibility for financing schools, evening education, and boarding schools (Kazakhstan: Financing for Equity, 2021).

At the same time, the expenditures of the state budget of the Republic of Kazakhstan, aimed at ensuring the required educational level in the country, according to the results of recent years, are usually within 3.3%–4.6% of the country’s GDP (2021: 4.59%; 2020: 4.45%; 2019: 3.35%). This level as a percentage of GDP is considered low and not in line with United Nations Educational, Scientific and Cultural Organization’s (UNESCO) recommended 5%–7% of GDP. At the same time, every year, the state increases its spending on education. Still, the most significant part of these costs is aimed at ensuring the development of preschool, primary, and secondary education. As for higher and postgraduate education, their funding is at a level of less than 10% of the total education costs; in addition, 15% of the total education costs are directed to the training and retraining of personnel (Bureau of National Statistics..., 2023). The government announced that, by 2025, education funding will increase to US\$27 billion (7% of GDP) with a focus on building 800 new schools, training in educational technology and innovation, 100% kindergarten enrollment, and raising teacher salaries, among others. The state education program includes construction of schools and kindergartens, the modernization of vocational education, e-learning projects, and teacher training systems (Ministry of Finance..., 2023).

The Law of the Republic of Kazakhstan No. 319-III “On Education” (2007) considers effectiveness and efficiency as being among the essential principles of the system of financial support for education, highlighting them as today’s priority tasks. The Organization for Economic Cooperation and Development (OECD) and the World Bank noted that Kazakhstan has made profound changes to improve the education sector and is gradually approaching international norms and best practices (Pons et al., 2015). However, with the current level of financial support and approaches to the distribution of public funds, the Republic of Kazakhstan will not be able to provide an adequate number of its citizens with quality education and conduct the necessary amount of scientific and practical research to achieve the required level of innovation. Accordingly, it can be concluded that insufficient funding is the main reason for the weak competitiveness of education in the Republic of Kazakhstan. In the above work, the authors mentioned the State Program for the Development of Education and Science of the Republic of Kazakhstan for 2020–2025, which, among other things, is planned to be introduced into public education schools per capita funding (Decree of the Government..., 2019).

The first attempt to introduce school per capita funding dates back to 1999. In 2011–2013, a project was implemented to pilot the introduction of per capita funding in secondary education in the Republic of Kazakhstan. The Ministry of Education and Science of the Republic of Kazakhstan approved the methodology for normative per capita financial provision of secondary education organizations. Since 2012, an innovative financing system has been introduced in the Republic of Kazakhstan’s five pilot regions: East Kazakhstan; South Kazakhstan; Akmola; Pavlodar; and Mangystau regions. At the same time, since September 1, 2020, per capita funding has been introduced in about 1500 city schools in Kazakhstan, along with the plans of the Ministry of Education and Science of the Republic of Kazakhstan, which are not limited to urban schools (United Nations in Kazakhstan..., 2021).

Since 2021, on behalf of the President of State Kassym-Jomart Tokayev, changes have been made in the vertical of financing the education system: the budgets of all schools, previously funded from district funds, are now accumulated at the regional level. The ministry plans to review the budget structure of all schools subsequently. Moreover, since now there is a transition to per capita funding in urban schools, the plans are to distribute funds evenly for students at the rural school level and introduce initiatives that will ensure a qualitative gap between the village and the city. However, the research results prove that the methodology proposed above still does not fully reflect the principles of per capita financing for several reasons:

1. The methodology is aimed at meeting the needs of teachers in remuneration and is not focused on the needs of schoolchildren.
2. The exclusion of small-class and other types of schools from per capita funding increases the inefficiency and inequity of the secondary education funding system, which is reflected in the presence of several funding mechanisms and increases management costs.
3. A large number of coefficients complicates the per capita funding formula. It makes it specific to each school, and applying the formula becomes a complex, costly and nontransparent process.

Therefore, the revision of the per capita financing formula will allow identifying problematic issues and minimizing their impact during the implementation period. This will help to improve equity in access to quality education through fair funding for schools. In addition to secondary education, higher education is also being reformed in the Republic of Kazakhstan. The reforms of the Ministry of Education and Science of the Republic of Kazakhstan in recent years focus on minimizing the number of higher educational institutions. The implementation of such reforms resulted in the accumulation of budgetary funds depending on the size of HEIs in the ratio, as shown in Table 3.

Table 3. Distribution of budgetary funds among higher-education institutions based on size

Size of higher education institutions	Percentage of budgetary funds, %
Large higher-education institutions (>250 staff)	88
Medium-sized higher-education institutions (101 to 250 staff)	5
Small higher-education institutions (<100 staff)	7

Source: Compiled by the authors based on Kazakhstan – Higher Education Strategy Associate (2022).

Studies show that the main problem is that part of the public financial support for higher education is distributed through the system of educational grants, which currently has certain shortcomings, namely,

- variation in the cost of grants for universities and study programs hinders grant recipients' academic mobility, which, in turn, does not contribute to fair competition between universities. In addition, this factor determines the difference in the level of remuneration at universities;
- the current system does not provide sufficient support to the low-income population; and
- in postgraduate education (especially for candidates of sciences, grant programs do not allow one to choose an educational institution at their own discretion) since grants are given to specific universities, and the efficiency ratio of such funding is not considered in their distribution.

The authors note that, given the above situation, Nazarbayev University received the most significant number of state grants. Thus, Nazarbayev University received an average of 7.16 million tenge for training one bachelor's degree (for comparison: in the Kazakhstan branch of Moscow State University, funding amounted to 1.71 million tenge per person; in the Voskhod branch of the Moscow Aviation Institute, funding was 0.9 million tenge). At the same time, calculations showed that, taking into account only large national universities of the Republic of Kazakhstan, the preparation of one bachelor in such a university, on average, costs the state 0.92 million tenge per year.

In other universities (that is, medium and small), the average cost of such education is in the range of 0.83 million tenge per person per year. It should be noted that the top 15 universities of the Republic of Kazakhstan in the 2021/22 academic year received more than 39 billion tenge, which is 18% more than in the 2020/21 academic year and equals 67% of the financial support of all 66 universities of the Republic of Kazakhstan. However, the dynamics showed that every year the number of universities that receive more than a billion tenge from the state is increasing (for comparison: two years ago, there were six such universities, last year 10 (see Table 4) (Bikineeva, 2022).

Based on the assessment and analysis of current practice results, the authors concluded that the channels for financing higher education require a constructive expansion not only through the system of educational grants but also through investment projects. For example, in developed countries, when determining the level of financial support for universities, several indicators are considered, e.g., scientific practice, employment, communication with employers, etc. A significant part of research funding is provided through direct grants without determining compliance with several criteria developed based on their effectiveness (OECD, 2018). The conclusions presented above confirm the need for a long-term increase in the volume of investments in the educational sector and maintaining them at a level not lower than the OECD standards (5%–6% of GDP) and/or at a level of at least 15%–20% of total government spending. At the same time, ensuring a high level of efficiency of investments in

Table 4. TOP-15 universities that received grants for the implementation of undergraduate programs in the 2021/22 academic year

Place	Higher-education institution	Number of grants for undergraduate studies	Average cost per grant per year (thousand KZT)	Total amount of contributions (million KZT)
1	Nazarbayev University	1792	7159	13177
2	Al-Farabi Kazakh National University	4445	920	4091
3	L.N. Gumilyov Eurasian National University	3669	920	3377
4	Satbayev University	2615	920	2407
5	Abai Kazakh National Pedagogical University	2472	920	2275
6	S. Seifullin Kazakh Agrotechnical University	2303	825	1900
7	M. Auezov South Kazakhstan University	2165	825	1786
8	Almaty University of Power Engineering and Telecommunications named after Gumarbek Daukeev	1964	825	1620
9	Asfendiyarov Kazakh National Medical University	1480	920	1362
10	Academician E.A. Buketov Karaganda University	1642	825	1355
11	Suleyman Demirel University	1634	825	1348
12	International Information Technology University	1471	825	1214
13	Astana IT University	1457	825	1202
14	Karaganda Technical University	1333	825	1100
15	International Education Corporation	1328	825	1096

Source: Compiled by the authors, based on K. Bikineeva (2022).

the education system is one of the critical indicators of improving the quality of education.

In the context of the study, it is worth noting that the often-mentioned OECD can be attributed to supranational politicians (Gunter, 2017) who challenge the structure and range of policies and programs in the field of education around the world. It should be noted that the policy recommendations of the OECD are primarily based on the results of their various international assessments, such as the Teaching and Learning International Survey (TALIS), PISA (Programme for International Student Assessment), and the Program for International Assessment of Adult Competencies (PIAAC) (Volante et al., 2017). Kazakhstan, as part of the world community, took part in all these studies, even though it is not a member of the OECD. It should be emphasized that the OECD is widely regarded as a body with significant global influence, including in nonOECD countries (Sorensen et al., 2021).

The OECD has become a key policymaker mainly due to its international tests and being the leading organization in the field of transnational governance in education. The starting point was the OECD study on the development of evaluation criteria. Therefore, the organization's influence was primarily associated with its role in global comparative studies. Many countries recognize that education should be the main focus of national policy and are making great efforts to improve this sector (Cibák et al., 2021). Kazakhstan is no exception. The government of the Republic of Kazakhstan has demonstrated its commitment to developing its education system by updating existing regulations, passing new legislation, and recognizing and implementing best practices.

From the preceding, it can be summarized that OECD research has mainly had a progressive impact on the national education system of the Republic of Kazakhstan. The results of PISA have significantly accelerated the process of updating the school curriculum content and moving toward the internationalization of reforms in the Republic of Kazakhstan. It should be noted that many large-scale reforms in the field of education in the Republic of Kazakhstan were adopted even before the results of PISA. Therefore, claiming that the new education system is based only on PISA is a mistake. However, it should be emphasized that the OECD recommendations were considered when modernizing the Kazakh education system. Although current political programs may threaten the national school system of Kazakhstan, Kazakhstan needs to participate in these studies so that the education system can benefit the country, offering quality education to everyone. National values should be prioritized in the pursuit of ratings and attention from educational authorities.

Discussions

According to the authors, comparing education financing in the Republic of Kazakhstan and other countries would be helpful. Thus, in their work, Humbatova and Hadjiev (2019) writes about the increasing role of education and its state funding in Azerbaijan in connection with the country's subsequent development. Scientists report that, in the country, the development of science is defined as the main direction of development of the state as a whole, and yet there are significant problems with the development of the industry. For example, there is no direct correlation between the amount of money spent on education and indicators of the development of science (Pakhomova et al., 2021a). In this case, the authorities should pay more attention to how their funds are used and the corruption component, which will likely become relevant for Kazakhstan. In their work, Le and Tran (2021) study public spending on education and its relationship with economic growth in Vietnam. In their work, they prove that, in the long run, GDP growth and an increase in education costs affect each other; that is, an increase in education spending also increases the growth of the gross product. Based on this, scientists recommend increasing the cost of education in the country as well as solving problems in this area (in particular, with the level of qualification of teachers), which is relevant for Kazakhstan.

Features of the use of budgetary resources for education in Brazil were studied by T. Cruz and T. Sliva (2020). Scientists write that their system is entirely decentralized, although it has its own characteristics, e.g., local authorities minimally use local taxes for education. However, they request interbudgetary transfers intended for the development of this area. Thus, the role of the federal authorities consists of the clever use of the funds allocated from the state budget. This management system is quite unusual and differs significantly from Kazakhstan. In turn, Y. Liu et al. (2019) studied the impact of spending on education, confirming a direct relationship between economic growth and education spending (primarily secondary) based on data from China.

In addition, scholars have described the peculiarities of financing education in the country. In general, they are carried out by the central government, and only noncompulsory education can be carried out at the expense of beneficiaries. Thus, the system of budgetary financing of the industry is weakly decentralized. In her work, fascinating conclusions come from E. Vera-

Toscano (2013), who analyze education costs in EU countries. In the article, she writes that the effectiveness of spending on education depends on the number of preschools, schools, and student populations. Thus, in countries with a large proportion of older people, increasing the cost of education (or implementing all kinds of reforms in this area) leads to worse results than in countries with a large part of the young population (Juškevičienė et al., 2022). Therefore, before deciding to increase spending on education, it is worth carefully studying the structure of the country's population. In Kazakhstan, a relatively large part of the population is young (Demographic Statistics of Kazakhstan, 2023), which probably justifies investing in this industry.

It is essential to consider what opinions about the education development in Kazakhstan reached other scientists during their research. Shaimukhanova et al. (2012), for example, writes that the development of education in Kazakhstan is primarily associated with the socialist past of the country, stating that the past education methods were not as effective as the new ones, particularly the Bologna system, which was actively introduced in the country in the 10s of the 21st century. In their opinion, in the future, even better results in terms of the development of the state in the country should be expected. In turn, Duisembekova (2013) writes about the methods by which the Republic of Kazakhstan probably plans to develop the educational industry in the country. In particular, it is designed to improve the standard of living of teachers and the prestige of this profession while providing additional benefits for them, especially if they live in rural areas (Kolomiets et al., 2021). This policy will indeed be able to improve the quality of teachers in the country in the future, which may turn out to be a competent investment for the state in the perspective of a decade (Menshikov et al., 2022).

Separately, it is worth discussing issues with the decentralization of the education system in the Republic of Kazakhstan, which began in the 2000s. Thus, in recent years, costs have been borne to a greater extent by local budgets since, on average, more than half of all education costs are allocated from local budgets (Jatkiewicz, 2013). The specified ratio of expenditures of the state and local budgets indicates that the Republic of Kazakhstan is characterized by a transition from a centralized to a decentralized management model, carrying out constructive reforms aimed at democratizing management functions. Respective reformatting is associated with introducing democratic principles into the management process and an increase in the role of local authorities in managing the financial resources of the educational industry in the Republic of Kazakhstan.

According to the authors, decentralization, in general, should contribute to the development of any economic sector, which is also believed by Abimbola et al. (2019). This is because decentralization increases the efficiency of using budgetary resources, which, in the long run, should lead to better results in the industry. However, there are other opinions among scientists, which are voiced by Mynbaeva and Satyvaldieva (2011). They discuss the existing adverse effects of decentralization. In their opinion, these effects impede the creation of generally accepted state standards of education and may increase the financial inequality of certain levels of education, depending on the possibilities of local budgets. The authors also note that the process of decentralization, in its essence, does not mean the complete leveling of the influence of the central government. Still, certain degrees of manifestation of decentralization can introduce a relatively deep divergence within the management system, which can also be observed in Kazakhstan (Kovalova et al., 2021).

In the above work, the authors mention the Law of the Republic of Kazakhstan No. 319-III "On Education" (2007), which is considered one of the most promising in the country for the development of education. Indeed, reform proposals include expanding preschools, introducing new funding structures (including a per capita funding scheme), establishing community centers to help small schools, increasing investment in educational institutions, and greater use of information technology in schools. Y. Sarmurzin et al. (2021) also write that the qualitative introduction of such a law into action could positively impact the development

of the country's educational sphere. This work notes that a unique role was played by studies conducted by the OECD regarding the development of education in Kazakhstan (Gunter, 2017).

Summarizing them, it should be noted that the problems of financing education in the context of implementing new approaches to forming interbudgetary relations in the Republic of Kazakhstan still exist and need to be addressed immediately. In general, financing of the education and science sector is a determining factor in the state's competitiveness in the modern world economic system, regardless of the level of provision with natural resources and the volume of its own markets and is the most important investment (Podoliak, 2022). Therefore, the main steps in reforming education on the way to the overall economic growth of the country, which can be identified based on OECD research, are as follows:

- ensuring the effective distribution of financial resources at the state and local levels to maintain the proper state of the material and technical base of educational institutions;
- organization of continuous monitoring and control of the targeted use of budgetary funds allocated for the educational industry;
- attraction of grants from international technical programs creation of public associations that can mobilize resources from international programs may become additional financial support for local governments;
- expanding the ability of educational institutions to attract additional funds through educational innovations; expansion of the list of paid services provided by educational institutions;
- introduction of an integrated approach to reform, including preschool, school, out-of-school, and vocational education;
- stimulation of constant motivation of pupils and students for quality education; and
- conducting decentralization of education, taking into account the characteristics of the regions, their production potential, the demographic situation, and the interests of territorial communities.

According to the authors, if all these recommendations are applied by the government of the Republic of Kazakhstan, it should probably expect great success in developing education in the country.

Conclusions

The conducted scientific study of the prospects for financial support of education in Kazakhstan in the context of interbudgetary relations led to the following conclusions. In current conditions, when Kazakhstan, like most countries of the world, has recognized the priority to form a new postindustrial type of society, which is characterized by the creation of a new model of the economy, i.e., the knowledge economy, wherein education is becoming one of the critical factors in economic growth and sustainable development of the state. To solve the problems facing the educational sphere, a significant increase in the volume of its financing is required.

The study gives grounds to assert that effective and synergistic interbudgetary relations in the financial provision of all levels of education are designed to ensure that education meets modern demands from society and needs of the economy, the availability and quality of educational services, regardless of the place of residence of consumers of such services, and the improvement of economic levers for managing the system. Education at all levels, overcoming the isolation of schooling from the economy, and integrating higher education into the economic development of the state and the European educational space. At the same time, constructive reforms in education financing will ensure the dynamic development of this sector, stimulate the processes of knowledge commercialization, strengthen the market positions of public educational institutions, and increase their competitiveness since education will fulfill its mission of developing the country's human potential with reliable and stable sources of funding.

Despite specific positive steps due to the emerging processes of reforming the financing of the education system, there are risks to their successful completion. According to the results of the study, in addition to political ones, a significant risk today is the low financial solvency and independence of local budgets, the lack of established standards for financing education, conflicts over school closures, and the lack of professionals with work experience who could exercise new powers and manage the educational process, in the field, as well as sharing responsibility for the quality of education. In general, the results obtained in the course of this scientific study, as well as the conclusions formulated on their basis, can be used as an adequate scientific basis for further research, which will consist of the development of funding models and other organizational and economic mechanisms aimed at ensuring accessibility and the quality of education as well as to improve the efficiency of budgetary spending on education at the state and local levels in Kazakhstan.

Future studies in education financing in Kazakhstan can explore the impact of increased funding on educational outcomes and academic achievements as well as its effectiveness in improving the overall quality of education. Additionally, research can focus on ensuring equity and inclusivity in financing policies to guarantee equal access to quality education for all segments of the population. Moreover, evaluating the efficiency of budgetary spending and identifying areas for resource optimization would be crucial in enhancing the cost-effectiveness of education funding. Last, exploring the potential benefits and challenges of public-private partnerships can offer insights into how involving the private sector can contribute to the accessibility and sustainability of education financing in the country.

Disclosure Statement

The authors declare that there are no conflicts of interest that relate to the research, authorship, or publication of this article.

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