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# Socio-philosophical analysis of education as the basis of the social and investment model of the strengthening of the statehood, social identity and elite of Kyrgyzstan

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This paper seeks the goal of developing a new – social and investment – model for strengthening statehood, social identity and the elite of Kyrgyzstan. Econometric modeling of the role of education in strengthening the statehood, social identity and elite of Kyrgyzstan based on the data of the official statistics for 2006–2021 is performed. As a result, a close connection between education and other interests in enhancing the statehood, social identity and elite of Kyrgyzstan is substantiated. The key role in this process belongs not to higher but to secondary vocational education. That is why it is set in the basis of the proposed social and investment model of strengthening of statehood, social identity and elite of Kyrgyzstan. The theoretical significance of the authors' conclusions is due to the most complete description of cause-and-effect relationships of enhancing the statehood, social identity and elite of Kyrgyzstan through the clarification of education's role in them. The social significance of the paper lies in the rethinking of the theory and practice of strengthening statehood, social identity and elite from the position of sustainable development. The authors' recommendations support the practical implementation of SDG 1, SDG 4, SDG 9, SDG 10, and SDG 11. The practical significance of the developed social and investment model of strengthening of statehood, social identity and elite of Kyrgyzstan consists in its enhancing the scientific and methodological framework for the practical implementation of the National strategy of development of the Kyrgyz Republic for 2018–2040, adopted by the Decree of the President of the Kyrgyz Republic dated 31 October 2018, No. 221. The developed social and investment model will allow the Kyrgyz Republic to adopt the status of great power and to reach the leading positions in Central Asia in the Decade of Action.

## KEYWORDS

education, development of education, statehood, elite, great power, identity, Central Asia, Kyrgyz Republic

## 1 Introduction

The National strategy of development of the Kyrgyz Republic for 2018–2040, adopted by the Decree of the [President of the Kyrgyz Republic \(2022\)](#) dated 31 October 2018, No. 221, prioritized in this development the strengthening of the statehood, social identity and elite of Kyrgyzstan. This strategy is aimed at establishing the Kyrgyz Republic's status of great power and achieving the leading positions in Central Asia.

The problem is that the existing model of enhancing the statehood, social identity and elite of Kyrgyzstan, which is based on state regulation and thus could be called regulatory, does not ensure the strategic task to the required extent. This is shown, first, by only limited results that were obtained. For example, according to the [National Statistics Committee of the Kyrgyz Republic \(2022\)](#) on external migration, there was an outflow of population from the Kyrgyz Republic over the recent decade: 769 people in 2021, 4,861 people in 2020 and 39,403 in 2011.

Second, it should be noted that the model of enhancing the statehood, social identity and elite of Kyrgyzstan, which has been practiced in recent years, is largely based on state regulation. This reduces the effectiveness of this model, since, with a similar result, the effectiveness of state regulation is lower compared to market self-administration – due to large expenses of the state budget. An increase in results in enhancing the statehood, social identity and elite of Kyrgyzstan in the implemented model is also restrained due to the insufficient flexibility of state regulation.

Thus, it is relevant to search for ways to improve the practice of enhancing the statehood, social identity and elite of Kyrgyzstan – in particular, through the development of an alternative approach, which will allow using the market mechanism. Striving to solve the set problem, this paper seeks the goal of developing a new – social and investment – model for strengthening of statehood, social identity and elite of Kyrgyzstan. To do this, the article provides a socio-philosophical analysis of the place and role of education based on the social investment model for strengthening the statehood, social identity and elite of Kyrgyzstan.

The paper's originality is due to the fact that education is set in the basis of enhancing the statehood, social identity and elite of Kyrgyzstan. This ensures a long-term positive effect of state regulation, activation of the market mechanism and an increase in the flexibility and effectiveness of the practice of enhancing the statehood, social identity and elite of Kyrgyzstan.

This paper's structure is as follows. The literature review contains the theoretical framework of the research and presents a regulatory model for enhancing the statehood, social identity and elite of Kyrgyzstan. This is followed by the research materials and methods. Then, in the results section, the role of education in the strengthening of the statehood, social identity and elite of Kyrgyzstan is specified, and the social and investment model of enhancing the statehood, social identity and elite of Kyrgyzstan based on education is developed. The discussion contains a comparative analysis of the alternative models of enhancing the statehood, social identity and elite of Kyrgyzstan. The conclusion sums up the research, with an indication of its limitations and prospects for future scientific studies.

## 2 Literature review

### 2.1 Theoretical base of the research

The theoretical framework of this research is the concept of strengthening of statehood, social identity and elite. According to this concept, the key interests of sustainable socio-economic development are as follows:

- Social progress through raising the level of the population's education ([Dryjanska et al., 2022](#));
- Growth of living standards through an increase in the population's income ([Cheng et al., 2022](#));
- Digital modernisation through the implementation and active use of information and communication technologies (ICT) in the activities of society and entrepreneurship ([Popkova and Sergi, 2020](#));
- Reduction of income inequality through fairer and more equal distribution of income in society ([Huh and Park, 2021](#));
- Unlocking of human potential through support for employment and reduction of unemployment ([Smith et al., 2021](#));
- The inflow of population through external migration ([de Haas, 2021](#)).

A prospective means of meeting the above interests is the implementation of the social and investment model of strengthening statehood, social identity and elite. The essence of this model consists in the government's making social investments in the economy, which is supposed to ensure an increase in the quality of life in society and its sustainable development. The basic categories of the socio-investment model for the development of the economic system are the following:

- Statehood as the sovereignty and independence of the state, its ability to develop independently without external interference ([Akhmetova et al., 2022](#); [Heinrichs, 2022](#));
- Social identity as a socio-cultural belonging to a particular state (Motherland), fueled by patriotism ([Al-Anazi and Abdel-Azim, 2023](#); [Kish Bar-On and Lamm, 2023](#); [Wallace and Buil, 2023](#));
- Elite as a set of the most active representatives of civil society, the most qualified personnel, and the most progressive representatives of society ([Duque, 2019](#); [Kennedy et al., 2020](#));
- Great power as the outstanding achievements of the state, causing pride among its citizens ([Buarque, 2022](#); [Zha, 2022](#)).

However, the review and analysis of the existing literature revealed that it does not provide a rationale for the fundamental role of education in the social investment model for strengthening statehood, social identity, and the elite from a social and philosophical point of view. This article seeks to overcome the identified limitations of the existing literature through a socio-philosophical analysis of the role of education in the basis of the social investment model for strengthening statehood, social identity, and the elite on the example of Kyrgyzstan. At the same time, the article relies on the theoretical basis of the socio-philosophical study of education formed in the literature, laid down in the works of [Jandrić and Knox \(2022\)](#); [Jayalakshmi and Smrithi Rekha \(2022\)](#); [Shabani Varaki and Mohammadi Chaboki \(2023\)](#); [Stek \(2022\)](#); [Wang and Lu \(2022\)](#).

According to the empirical studies on the considered topic - [Bonvin and Laruffa \(2019\)](#); [Kim and Ahn \(2020\)](#); [Patrinos et al. \(2021\)](#); [Xie and Rice \(2021\)](#); [Yu and Hsieh \(2022\)](#) – in the social and investment model of the development of the economic system:

- The key indicators of the development of education are as follows: graduation of students of (1) educational organizations of secondary vocational education ([Cerf, 2023](#)); (2) and higher professional education ([Tomasella et al., 2023](#));

- Indicators of statehood are as follows: (1) number of companies and organizations that use ICT (digital modernisation) (Rouvinsky, 2023);
- and (2) unemployment level (human potential development) (Barbuscia et al., 2023);
- Indicator of social identity is migration growth (population inflow) (Kan et al., 2023);
- Indicators of the development of the elite are disposable average household incomes (living standards) and the Gini coefficient (income inequality) (Słomczyński and Wesołowski, 2010).

## 2.2 The regulatory model of enhancing the statehood, social identity and elite of Kyrgyzstan

As a result of the content analysis of the existing literature, which describes the modern practice of enhancing the statehood, social identity and elite of Kyrgyzstan, the outlines of the implemented regulatory model are identified (Figure 1).

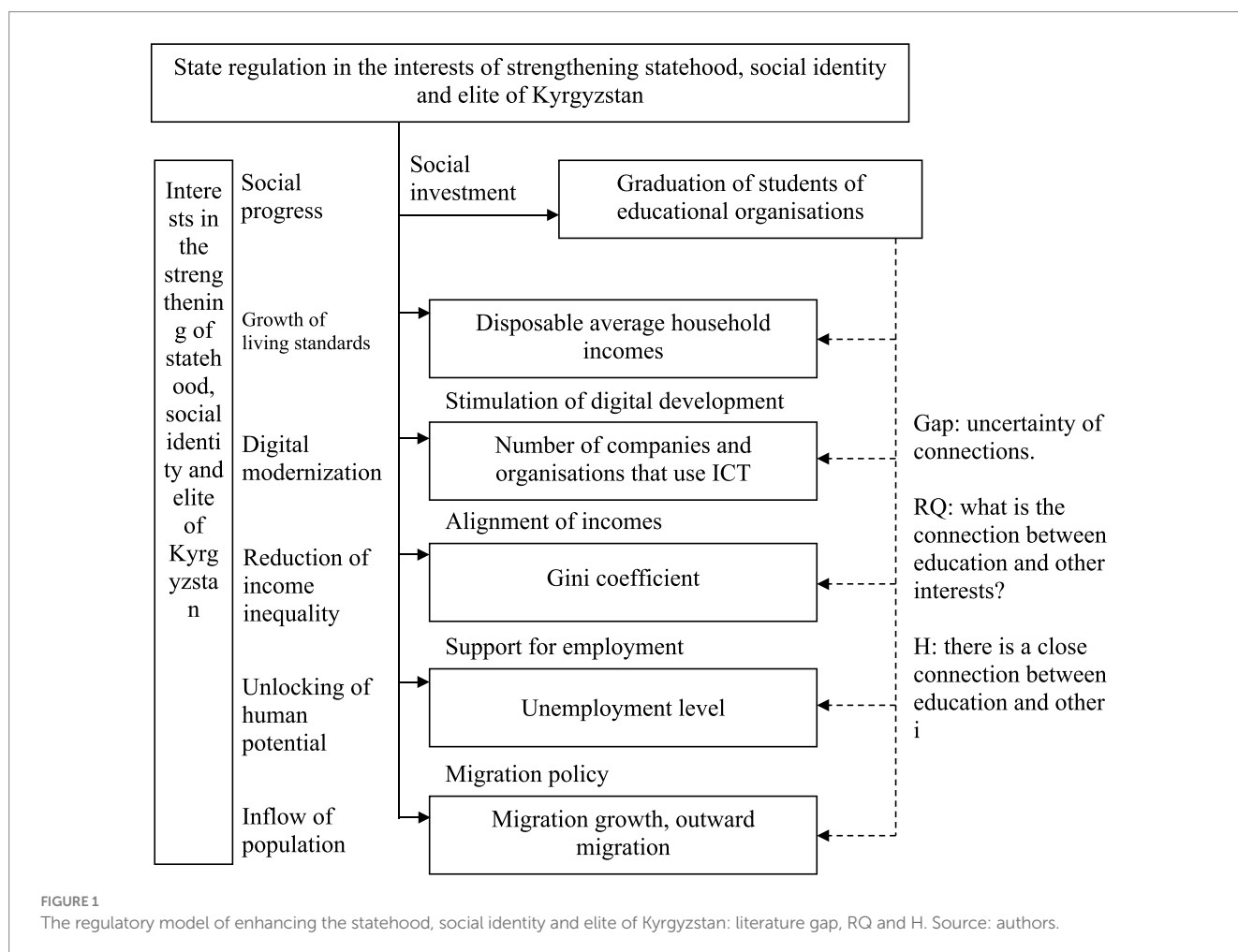
As shown in Figure 1 in the existing regulatory model, the source of enhancing the statehood, social identity and elite of Kyrgyzstan is

state regulation in the key spheres of the regulation (Isabekova and Pleines, 2021; Somfalvy, 2021; Ivanov, 2022).

The approach to implementing the directions of the national policy of enhancing the statehood, social identity and elite of Kyrgyzstan includes the following: separate investments in each targeted sphere of regulation; social investments, fight against poverty, stimulation of digital development, alignment of incomes, support for employment and migration policy (Critelli et al., 2021; Huseynli, 2022; Li et al., 2022). In the aspect of education, the emphasis is made on the development of higher education (Shadymanova and Amsler, 2018; Katsui et al., 2020; Momunalieva et al., 2020).

As a result of the performed literature review, it is possible to conclude that the existing interests and directions of state regulation were studied in isolation, and the connections between them are not clear. This is a literature gap. The need to fill the discovered gap is explained by the lack of clarity of their connections; the government has to implement each direction of regulation separately, without the possibility for optimisation.

Special attention should be paid to the connection between education and other interests and directions of regulation since the determination of this connection will allow for the use of the social and investment model. This leads to the following research question (RQ): What is the connection between education and other interests in enhancing the statehood, social identity and elite of Kyrgyzstan?



In the existing literature - [Aljanazrah et al. \(2022\)](#); [Campos et al. \(2022\)](#); [Garg et al. \(2022\)](#); [Rasli et al. \(2022\)](#) – the authors, using the international experience, note the significant contribution of education to the fight against poverty, digital development, reduction of income inequality, growth of employment and inflow of population in the economy. Based on this, the following hypothesis is proposed (H): there is a close connection between education and other interests of enhancing the statehood, social identity and elite of Kyrgyzstan, namely an increase in population's incomes; growth of the activity of the use of ICT in entrepreneurship; reduction of income inequality; reduction of unemployment and inflow of population through external migration.

To check this hypothesis, the econometric modeling of the role of education in strengthening the statehood, social identity and elite of Kyrgyzstan is performed in this paper.

### 3 Materials and method

The article combines quantitative and qualitative methods of scientific research. Documentary analysis was used in this paper as a qualitative method of research. Documentary analysis was used to analyse the following documents: regulatory framework of the Kyrgyz Republic from the materials of the [President of the Kyrgyz Republic \(2022\)](#), statistical materials on the Kyrgyz Republic from the [National Statistics Committee of the Kyrgyz Republic \(2022\)](#), and the official international statistics in the sphere of sustainable development from the materials of the [UN \(2022\)](#).

Quantitative research in the article is based on the economic and mathematical apparatus. To compile the research sample, the following system of indicators was formed, by selecting the relevant data from the official statistics of the Kyrgyz Republic and integrating the Sustainable Development Goals (SDGs) in the interests of strengthening the statehood, social identity and elite:

- Graduation of students of educational organizations of secondary vocational education ( $x_1$ ) and higher professional education ( $x_2$ ) – from the materials of the [National Statistics Committee of the Kyrgyz Republic \(2022\)](#) – as the indicators of social progress from the positions of SDG 4;
- Disposable average household incomes ( $y_1$ ) – from the materials of the [National Statistics Committee of the Kyrgyz Republic \(2022\)](#) – as the indicator of the growth of living standards from the position of SDG 1;
- Number of companies and organizations that use ICT ( $y_2$ ) – from the materials of the [National Statistics Committee of the Kyrgyz Republic \(2022\)](#) – as the indicator of digital modernisation from the position of SDG 9;
- Gini coefficient ( $y_3$ ) – from the materials of the [UN \(2022\)](#) – as the indicator of income inequality from the position of SDG 10;
- Level of unemployment ( $y_4$ ) – from the materials of the [National Statistics Committee of the Kyrgyz Republic \(2022\)](#) – as the indicator of unlocking of human potential from the position of SDG 8;
- Migration growth, outward migration ( $y_5$ ) – from the materials of the [National Statistics Committee of the Kyrgyz Republic \(2022\)](#) – as the indicator of population inflow from the position of SDG 11.

To check the suggested hypothesis and to find the role of education in the strengthening of the statehood, social identity and elite of Kyrgyzstan, the method of regression analysis is used to model the dependence of the given targeted results on factor variables. The timeframe of the research for the factor variables  $y_1$ – $y_4$  covers the period of 2006–2021, and for the factor variable  $y_5$  (because of the lack of archive data) – the period of 2011–2021. The empirical base of the research, as well as results of additional tests, are given in the Microsoft Excel table ([Supplementary Data](#)). The research model has the following form ([Equation 1](#)):

$$y = a + b_1 * x_1 + b_2 * x_2 \quad (1)$$

Hypothesis H is considered proven if there are non-negative values of the regression coefficients in the model (1), i.e., at  $b_1 > 0$  and/or  $b_2 > 0$  for  $y_1$ – $y_5$  in [Equation 1](#). The reliability of the regression models is checked with the help of the F-test (which allows assessing heteroscedasticity) and the  $t$ -test. We also performed the unit root test, autocorrelation (multicollinearity of the variables) and the normal distribution test.

### 4 Results

#### 4.1 The role of education in the strengthening of the statehood, social identity and elite of Kyrgyzstan

As a result of the automatized computer processing of the initial data, we specified the research model (1). Detailed results of the regression analysis are shown in [Table 1](#).

Based on the results from [Table 1](#), we obtained the following equations of multiple linear regression, which comprehensively reflect the role of education in the strengthening of statehood, social identity and elite of Kyrgyzstan:

$$y_1 = 1,477.9263 + 205.0410 * x_1 - 48.8682 * x_2 \quad (2)$$

Based on [Table 1](#), disposable average household incomes are by 95.97% explained by the influence of education factors. According to equation (2), an increase in the graduation of students of educational organizations of secondary vocational education by 1,000 leads to an increase in disposable average household incomes by 205.0410 som per month.

An increase in the graduation of students of educational organizations of higher professional education by 1,000 leads to a decrease in disposable average household incomes by 4.8682 som per month. Equation (2) successfully passed the F-test. F-observed equals 75.7560; it exceeded F-table, which equals 6.7010 (at the significance level of 0.01 at  $k_1 = 2$ ,  $k_2 = 16 - 2 - 1 = 13$ ). This confirmed the absence of heteroscedasticity. The value of  $t$  (−1.5433) exceeds (in absolute value) the table value. Therefore, the data are cointegrated (unit root is absent).

$$y_2 = 2,112.6325 + 300.3722 * x_1 + 39.1100 * x_2 \quad (3)$$

TABLE 1 Results of the regression analysis of the role of education in the strengthening of the statehood, social identity and elite of Kyrgyzstan.

Indicator		$y_1$	$y_2$	$y_3$	$y_4$	$y_5$
Regression statistics	Multiple R	0.9597	0.9613	0.8057	0.9329	0.6635
	R-square	0.9210	0.9242	0.6491	0.8703	0.4403
	Adjusted R-square	0.9088	0.9125	0.5951	0.8504	0.3004
	Standard error	490.9288	791.8832	1.7769	0.4510	8,795.1915
ANOVA	Significance F	$6.84461 \times 10^{-8}$	$5.23734 \times 10^{-8}$	0.0011	$1.71164 \times 10^{-6}$	0.0981
	Level of significance	0.01	0.01	0.01	0.01	0.1
	F-table	6.701	6.701	6.701	6.701	3.11312
	F-observed	75.7560	79.2137	12.0231	43.6281	3.14656
	Result of the F-test	passed	passed	passed	passed	passed
Coefficients	Constant	1,477.9263	2,112.6325	41.1829	6.8995	-42,790.0397
	$x_1$	205.0410	300.3722	-0.1362	-0.1474	1,322.0037
	$x_2$	-48.8682	39.1100	-0.2313	0.0916	54.4416
Standard error	Constant	743.3248	1,199.0056	2.6904	0.6828	23,962.4416
	$x_1$	17.2337	27.7985	0.0624	0.0158	528.5451
	$x_2$	21.2076	34.2084	0.0768	0.0195	454.8796
t-Stat	t-table	2.947	2.947	2.947	2.947	1.810
	Constant	1.9883	1.7620	15.3071	10.1040	-1.7857
	$x_1$	11.8977	10.8053	-2.1831	-9.3113	2.5012
	t-test for $x_1$	passed	passed	passed *	passed	passed
	$x_2$	-2.3043	1.1433	-3.0136	4.7016	0.1197
	t-test for $x_2$	passed	not passed	passed	passed	not passed
p-value	Constant	0.0683	1.7620	$1.07 \times 10^{-8}$	$1.59 \times 10^{-6}$	0.1120
	$x_1$	$2.316 \times 10^{-7}$	10.8053	0.0480	$4.09 \times 10^{-6}$	0.0369
	$x_2$	0.0384	1.1433	0.0100	0.0004	0.9077

\*at the level of significance of 0.1, at which the  $t$ -table is 1.75.

Source: authors.

Based on Table 1, the number of companies and organizations that use ICT is by 96.13% determined by education. According to equation (2), an increase in graduation of students of educational organizations of secondary vocational education by 1,000 leads to an increase in the number of companies and organizations that use ICT by 300.3722. An increase in the graduation of students of educational organizations of higher professional education by 1,000 leads to an increase in the number of companies and organizations that use ICT by 39.1110.

Equation (3) successfully passed the F-test. F-observed equals 79.2137; it exceeds F-table, which equals 6.7010 (at the significance level of 0.01 at  $k_1 = 2$ ,  $k_2 = 16 - 2 - 1 = 13$ ). This confirms the absence of heteroscedasticity. The value of  $t$  (-2.6185) exceeds, in absolute value, the table value. Therefore, the data are cointegrated (unit root is absent).

$$y_3 = 41.1829 - 0.1362^* x_1 - 0.2313^* x_2 \quad (4)$$

Based on Table 1, the Gini coefficient is by 80.57% explained by the influence of education. According to equation (2), an increase in the graduation of students of educational organizations of secondary vocational education by 1,000 leads to a decrease in the Gini coefficient

by 0.1362. An increase in the graduation of students of educational organizations of higher professional education by 1,000 leads to a decrease in the Gini coefficient by 0.2313.

Equation (4) successfully passed the F-test. F-observed equals 12.0231 – it exceeds F-table, which equals 6.7010 (at the level of significance of 0.01 at  $k_1 = 2$ ,  $k_2 = 16 - 2 - 1 = 13$ ). The value of  $t$  (-4.4161), observed, exceeds, in absolute value, the table value. Therefore, the data are cointegrated (unit root is absent).

$$y_4 = 6.8995 - 0.1474^* x_1 + 0.0916^* x_2 \quad (5)$$

Based on Table 1, the unemployment level is by 93.29% determined by education. According to equation (2), an increase in graduation of students of educational organizations of secondary vocational education by 1,000 leads to a decrease in the level of unemployment by 0.1474%. An increase in the graduation of students of educational organizations of higher professional education by 1,000 leads to an increase in the unemployment level by 0.9916%.

Equation (5) successfully passed the F-test. F-observed equals 43.6281 – it exceeds F-table, which equals 6.7010 (at the significance level of 0.01 at  $k_1 = 2$ ,  $k_2 = 16 - 2 - 1 = 13$ ). This confirms the absence of heteroscedasticity. The value of  $t$  (-2.6265), which is observed,



exceeds, in absolute value, the table value. Therefore, the data are cointegrated (unit root is absent).

$$y_5 = -42790.0397 + 1322.0037^* x_1 + 54.4416^* x_2 \quad (6)$$

Based on Table 1, migration growth and migration outflow is by 66.35% explained by education. According to equation (2), an increase in the graduation of students of educational organizations of secondary vocational education by 1,000 leads to an increase in migration growth (migration outflow) by 1,322.0037 people. An increase in the graduation of students of educational organizations of higher professional education by 1,000 people leads to an increase in migration growth (migration outflow) by 54.4416 people.

Equation (6) successfully passed the F-test. F-observed equals 3.1466 – it exceeds F-table (2.7632) (at the level of significance of 0.10 at  $k_1 = 2$ ,  $k_2 = 16 - 2 - 1 = 13$ ). This confirms the absence of heteroscedasticity. The value of  $t$  (−5.7013), which is observed, exceeds, in absolute value, the table value. Therefore, the data are cointegrated (unit root is absent).

The  $t$ -test in most of the equations was passed only for the factor variable  $x_1$ . Therefore, the key role in the strengthening of the statehood, social identity and elite of Kyrgyzstan belongs to secondary vocational education. An increase in the number of graduates of educational organizations of secondary vocational education by 1,000 people leads to an increase in disposable average household incomes by 205.0410 som; an increase in the number of companies and organizations that use ICT by 300.3722; a decrease in the Gini coefficient by 0.1362; a decrease in the level of unemployment by 0.1474%; an increase in migration growth, outward migration by 1,322.0037 people.

An autocorrelation test (multicollinearity of variables) was conducted and none of the coefficients of autocorrelation exceeded 0.99. This leads to the absence of multicollinearity (duplicating variables). The normal distribution test was conducted in Figure 2.

The results of the test in Figure 2 show that the values of all considered variables conform to normal distribution.

Thus, the results obtained allow for the following conclusions. Graduation of students of educational organizations of secondary vocational education supports the implementation of the social and investment model of the development of the economic system of the Kyrgyz Republic, first, through complete strengthening of statehood (stimulation of the growth of the number of companies and organizations that use ICT, i.e., through digital modernisation, as well as through reduction of unemployment, i.e., support for human potential development). Second, through the full development of the elite (stimulation of the growth of disposable average household incomes, i.e., living standards, as well as reduction of the Gini coefficient, i.e., inequality of incomes).

In turn, graduation of students of educational organizations of higher professional education supports the implementation of the social and investment model of the development of the economic system of the Kyrgyz Republic, first, through partial strengthening of statehood (through stimulation of the growth of the number of companies and organizations that use ICT, i.e., through digital modernisation). Second, through partial development of the elite (through the reduction of the Gini coefficient, i.e., inequality of incomes).

Graduation of students of educational organizations of secondary vocational education and higher professional education does not ensure the strengthening of social identity, since, instead of the expected increase in migration growth (population inflow), it leads to the outflow of the population from the Kyrgyz Republic through external migration, i.e., leads to brain drain. This is a limitation of the social and investment model of the development of the economic system of the Kyrgyz Republic.

## 4.2 The social and investment model of enhancing the statehood, social identity and elite of Kyrgyzstan based on education

Based on the results of the regression analysis, a social and investment model for enhancing the statehood, social identity and elite of Kyrgyzstan is proposed – its foundation is secondary vocational education. The prospects for the practical implementation of this model in the Decade of Action (2023–2030) are demonstrated in Figure 2.

As shown in Figure 3, the proposed social and investment model of enhancing the statehood, social identity and elite of Kyrgyzstan involves a stable level of higher education with an increase in the level of secondary vocational education by 100%: an increase in the number of graduates of educational organizations of secondary vocational education from 29,100 in 2021 to 58,200. This will ensure the following advantages to enhance the statehood, social identity and elite of Kyrgyzstan based on education:

- An increase in disposable average household incomes by 75.35%: from 6,647.75 som in 2021 to 11,656.94 som;
- An increase in the number of companies and organizations that use ICT by 79.06%: from 11,727 in 2021 to 20,998.34;
- A decrease in Gini coefficient by 15.98%: from 29.70 in 2021 to 24.95;
- A decrease in the unemployment rate by 69.65%: from 5.30% in 2021 to 1.61%;
- Migration inflow of population in external migration by 4,795.06%: from the outflow of 769 in 2021 to the inflow of 36,105.03.

The results obtained allow concluding that education plays a fundamental role in the social investment model for strengthening statehood, social identity, and the elite in Kyrgyzstan. The comparative analysis of an alternative model of enhancing the statehood, social identity and elite of Kyrgyzstan is shown in Table 2.

According to Table 2, in the social and investment model, unlike Isabekova and Pleines (2021); Ivanov (2022); Somfalvy (2021), the source of enhancing the statehood, social identity and elite of Kyrgyzstan is not the state regulation in the key spheres of regulation, like in the regulatory model, but investments in education to stimulate the market self-regulation of the economy.

Unlike Critelli et al. (2021); Huseynli (2022); Li et al. (2022), in the social and investment model, the approach to implementing the directions of the national policy of enhancing the statehood, social identity and elite of Kyrgyzstan involves the implementation of these directions not in isolation (isolated investments in each targeted

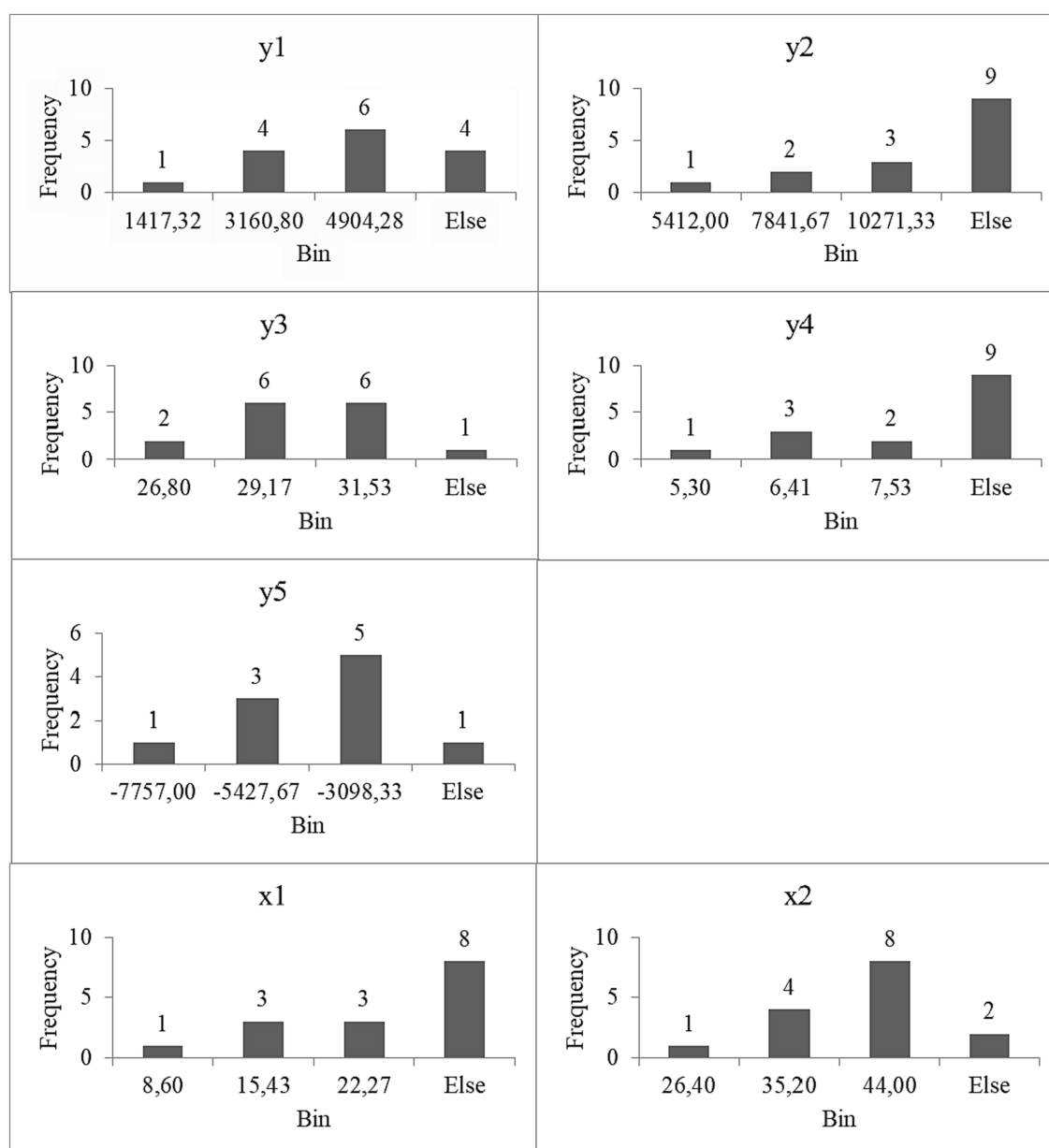


FIGURE 2  
Histograms of normal distribution of the values of the variables. Source: authors.

sphere of regulation), like in the regulatory model, but in a systemic manner: with the key role of education.

Unlike Katsui et al. (2020); Momunalieva et al. (2020); Shadymanova and Amsler (2018), in the social and investment model, the targeted level of education for enhancing the statehood, social identity and elite of Kyrgyzstan is not higher education, like in the regulatory model, but secondary vocational education.

## 5 Discussion

This paper contributes to the literature through the development of scientific provisions of the concept of strengthening the statehood, social identity and elite through the development of a new – social and

investment – model of implementing this concept in Kyrgyzstan based on education.

The advantages of the proposed social and investment model are the following:

- A more long-term positive effect of state regulation, covering the entire Decade of Action (until 2030), which is peculiar to education;
- Activation of the market mechanism, which facilitates the growth of flexibility and effectiveness of the practice of enhancing the statehood, social identity and elite of Kyrgyzstan.

The article contributes to the ongoing discussion on the implementation of the socio-investment model for the development

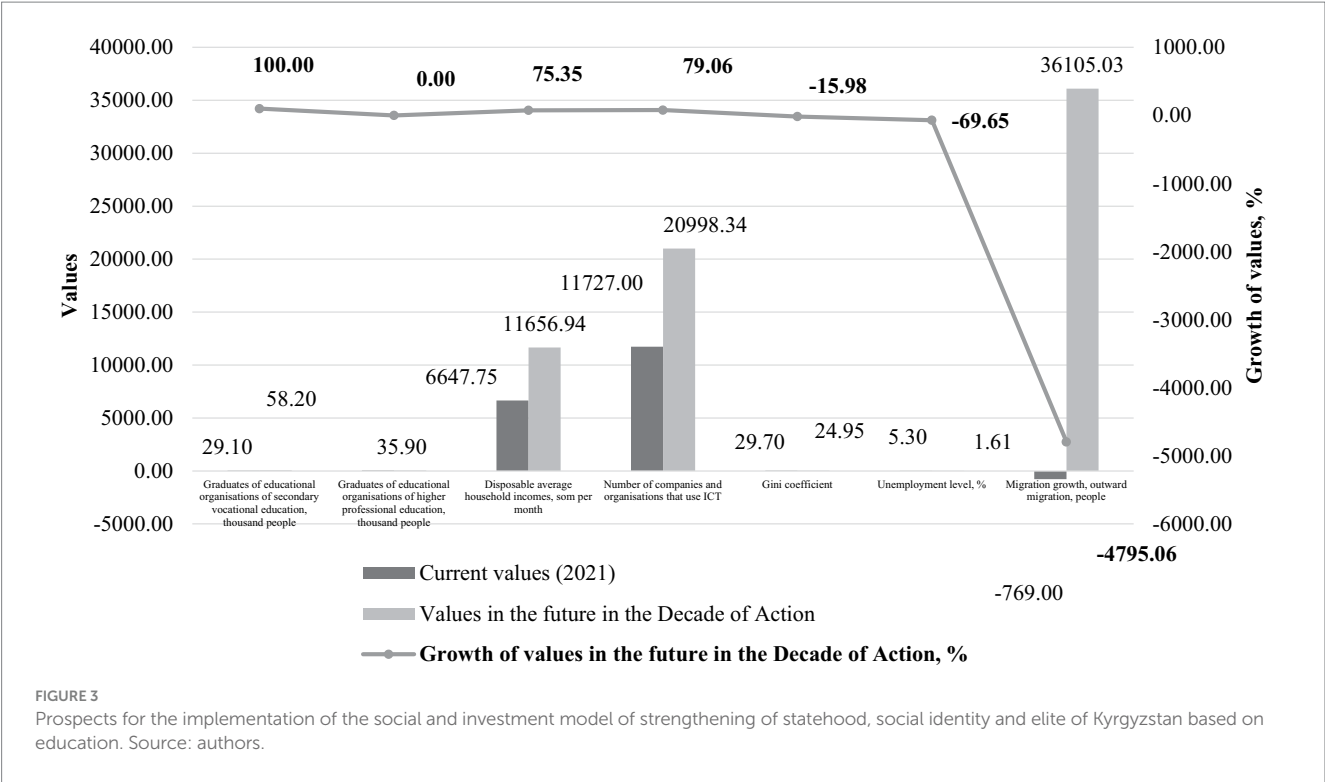


TABLE 2 Comparative analysis of the alternative models of enhancing the statehood, social identity and elite of Kyrgyzstan.

Criteria of comparison	The model of enhancing the statehood, social identity and elite of Kyrgyzstan	
	Regulatory model	Social and investment model
Source of enhancing the statehood, social identity and elite of Kyrgyzstan	State regulation on the key spheres of the regulation (Isabekova and Pleines, 2021; Somfalvy, 2021; Ivanov, 2022)	Investments in education for stimulation of the market self-regulation of the economy
Approach to implementing the directions of the national policy enhancing the statehood, social identity and elite of Kyrgyzstan	Separately: isolated investments in each targeted sphere of the regulation (Critelli et al., 2021; Huseynli, 2022; Li et al., 2022)	Systemic: with the key role of education
The targeted level of education for enhancing the statehood, social identity and elite of Kyrgyzstan	Higher education (Shadymanova and Amsler, 2018; Katsui et al., 2020; Momunalieva et al., 2020)	Secondary vocational education

Source: authors.

of economic systems, substantiating from a socio-philosophical point of view the fundamental role of education in the basis of the social investment model for strengthening statehood, social identity, and the elite on the example of Kyrgyzstan. In particular, the article complements and develops the scientific provisions of the philosophy and sociology of education given in the works of Jandrić and Knox (2022); Jayalakshmi and Smrithi Rekha (2022); Shabani Varaki and Mohammadi Chaboki (2023); Stek (2022); Wang and Lu (2022), strengthening their theoretical and evidence base.

## 6 Limitation

To conclude, attention should be paid to the fact that this paper did not discover the contribution of higher education to the

strengthening of statehood, social identity and the elite of Kyrgyzstan. The reason for the absence of such a contribution is unknown, which is a limitation of the results obtained. This limitation should be dealt with in future studies, based on larger arrays of data for longer periods.

## 7 Conclusion

Summing up the research, it should be noted that the proposed hypothesis H was proved; the close connection between education and other interests of enhancing the statehood, social identity and elite of Kyrgyzstan was confirmed. Thus, the factors of education led to an increase in the population's incomes by 95.97%, growth of the activity of the use of ICT in entrepreneurship by 96.13%, a decrease in income inequality by 80.57%, a decrease in



unemployment by 93.29% and population's inflow through external migration by 66.35%.

It is noteworthy that the key role in this process belongs not to higher but to secondary vocational education. That is why it is set in the basis of the proposed social and investment model of strengthening of statehood, social identity and elite of Kyrgyzstan. The theoretical significance of the authors' conclusions is due to their allowing for the comprehensive description of the cause-and-effect relationships of enhancing the statehood, social identity and elite of Kyrgyzstan through specifying education's role in them. The scientific novelty of the author's conclusions and results lies in the fact that they provided a socio-philosophical justification for the fundamental role of education in the basis of the social investment model for strengthening statehood, social identity, and the elite on the example of Kyrgyzstan.

## 8 Implication

The practical significance of the developed social and investment model of strengthening of statehood, social identity and elite of Kyrgyzstan is that it strengthened the scientific and methodological base of the practical implementation of the National strategy of development of the Kyrgyz Republic for 2018–2040, adopted by the Decree of the [President of the Kyrgyz Republic \(2022\)](#) dated 31 October 2018, No. 221. The developed social and investment model will allow the Kyrgyz Republic to adopt the status of great power and to reach the leading positions in Central Asia in the Decade of Action.

The social significance of this paper is due to the fact that the theory and practice of strengthening statehood, social identity and elite are rethought from the position of sustainable development. The authors' recommendations support the practical implementation of SDG 1, SDG 4, SDG 9, SDG 10, and SDG 11.

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## Data availability statement

The original contributions presented in the study are included in the article/[Supplementary material](#), further inquiries can be directed to the corresponding author.

## Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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## Supplementary material

The Supplementary material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/feduc.2024.1146784/full#supplementary-material>

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