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Towards digital society management and 'capitalism 4.0' in contemporary Russia

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Conceptualizing the complexities of the Russian political economy strikingly illustrates the challenging but essential role of the State in the new process of capitalist reforms initiated in the 1990s. A missing ingredient in this discourse has been considering the extraordinary impact technology has on society and how it affects the process. Accordingly, this paper focuses on the current development of culturally unique capitalist theory in Russia, together with the practical application of proven quantitative landmarks and policy implications for managing digital society's development to optimize capitalism in Russia. The paper performs a quantitative analysis of the considerable influence that the digital society has on Russian capitalism and how the latter can be systemically optimized through the former's development. This contribution's originality lies in its consideration of the consequences of digital culture on the unique model of capitalism shaping contemporary Russia. Currently, Russia is implementing a particular and unique model of capitalism model where the digital society's influence is limited and contradictory. We argue that the Russian model of capitalism could experience rapid development in the foreseeable future with effective digital society management.

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Introduction

This paper develops alternative economic paradigms drawn from the digital society revolution and applies them to Russia's contemporary and future model of state capitalism. The paradigms range from the digital society to global competitiveness, the Internet of Things, and social well-being. While Russian capitalism must ensure that it can deliver economic development and high-tech modernization, our paradigms go beyond traditional market versus non-market models to propose a novel framework of development and finance in a digital society characterized by massive, powerful state-controlled companies. The Kremlin now has strategic state control over entities dominating the energy, banking, and natural resources sectors. A speeding up of this trend towards strategic nationalized companies creates a new capitalism model and generates issues with efficiency, competition, and accountability in Russia's economy.

At the same time, however, we must investigate the nature, flows, and strategic changes that Russia's new state capitalism has on cross-cutting technologies. Their interconnection with geopolitical, social, and sustainability issues is fundamental. While we expect the technological revolution to produce financial results in terms of GDP growth, there is no guarantee that it will promote social progress. The relationship between the quintessential channel countries relies on increasing their tech capital, and conflicting definitions of products have been documented to be at best puzzling. This paper aims to identify the conditions under which there would be a more direct link between technological advances, improvements in human wellbeing, and the development of a particular type of Russian capitalism to foster economic growth. Russia's role in supporting technological resources is significant, but new competencies are needed to boost innovative activity.

Future scenarios for the evolution of state capitalism in Russian are closely connected to the rapid development of the technological revolution and the critical role Industry 4.0 now plays in global economic competitiveness. The Fourth Industrial Revolution envisions that technological development will transition to a new—digital—economic model. Industry 4.0 requires Russia to innovate in a wide number of areas to ensure better global competitiveness in the long-term.

Capitalism has been recognized as the optimal economic development model, as is evident by its global implementation. As capitalism is based on the liberal approach to state management, the use of competitive market mechanisms, individual initiative, flexibility, and economic subjects' adaptability, the social environment plays a critical role. Under the digital economy conditions and the Fourth industrial revolution, a new social environment—digital society—has emerged. In such a society, knowledge and information have considerable value and require the support and application of leading technologies.

There is a scientific and practical problem of determining the influence of digital society on capitalism. This problem is particularly significant in countries with emerging economic systems (Sergi, 2003), where capitalism is still being developed. In this paper, we present a systemic view of the considerable influence that the emergence of the digital society has on capitalism in Russia. The Russian socio-economic system's experience is compelling because the current digital transformation now underway quickly became a burden on society and economy in the process of an incomplete transition to capitalism (Sergi, 2009), leading to unique consequences.

This research considers specific perspectives on the development of capitalism in Russia in a digital society. Its significance is that it offers an understanding of digital society's development as a manageable process, investigating capitalism's consequences and explicitly focusing on the Russian economy and its unique economic model. Due to the unaffordability of breakthrough technologies and the lack of existing infrastructure for Industry 4.0, the Russian digital model might strengthen both state capitalism and sustainable development. The paper also delves into whether the digital economy improves social well-being and the population's quality of life. Also, we ask whether the Russian case might have the advantage of becoming a universally applied blueprint for the capitalist models of other large, emerging, resource-rich nations.

The enthusiasm shown by many scholars for the digital society has met with some criticism, mainly because they tend not to emphasize the differences between advanced, emerging, and developing countries. Such a reading focuses solely on the necessary transition measures required for a digital society while neglecting economic development's distinctive nature in emerging markets. In contrast, we lay out the differences between developed and developing economies by focusing on the Russian case. The research hypothesis is that unlike countries with developed market economies (e.g., countries of the OECD), where the emergence of the digital society broadly supports and accelerates capitalism's development, the influence of the digital society on capitalism in Russia is complex and contradictory. Not all manifestations of capitalism in Russia are manageable. There is a need for a flexible approach to regulating expressions of capitalism influenced by digital society's development.

This paper is structured in the following way. The introduction is followed by a literature review (including gap analysis), materials, and methodology. The paper proceeds to introduce and evaluate the following: (1) a quantitative analysis of the influence of the digital society on the designated manifestations of capitalism in Russia; (2) a systemic view on how to optimize Russian capitalism through managing the development of the digital society; and (3) the policy implications for managing the development of the digital society in order to optimize Russian capitalism. This analysis is followed by a case study on the development of digital culture in the context of Russia's COVID-19 pandemic crisis. The paper concludes with considering the key contributions that it makes in developing capitalist theory and practice in this area.

Theoretical basis

The theoretical basis of the research consists of a broad literature review of work on the digital economy, Industry 4.0, the Fourth industrial revolution, and digital society: Eze et al. (2020), Goisauf et al. (2020), Ma et al. (2020), Malin et al. (2020), Popkova and Gulzat (2020), Popkova and Zmiyak (2019), Sergi (2003), Sergi et al. (2019), etc. Pedersen and Wilkinson (2018) show that social service provision in the digital society has a particular form.

The concept of the digital society as an exceptional socio-economic environment, in which electronic communications prevail and cybersecurity has increased importance, was discussed in the works of Calvo (2020), Condello (2020), Lohmeier et al. (2020), Ramli et al. (2020), Ruiz-Ruano García and Puga (2020), Skill et al. (2020), Syed Alwi et al. (2020), van Dijck (2020), and Wijoyo et al. (2020). An analysis of the impact of the COVID-19 pandemic crisis on digital society can be found in Al Hajri et al. (2020) and Yen (2020).

Dubiel (2018) proposes the tendency to transform the post-Internet society into a digital society as a new social institution, which emerges, functions, and develops in the digital economy. Hoeyer (2020) notes that there are inequalities in digital access to data and believes that differences between the public and private sectors have created the infrastructure for digital data and ideas of confidentiality. As observed by Schuchard et al. (2019), both cause large social risks.

This research is also based on the fundamental tenets of capitalist economic theory as promulgated by modern scholars. Mraović (2011) compares free-market capitalism and speculative market capitalism. Ali (2007) studies the specifics of contemporary capitalist relations and introduces the notion of 'creative capitalism', and Churchill (2003) presents the idea of 'customer capitalism'. Mesure (2008) believes that we could create a world without poverty based on the promotion of social business, which he believes defines the future of capitalism.

Richardson (2011) explores the history of capitalism and thinks that the Fourth Industrial Revolution is ruthless. Macgregor (2004) outlines the new nature of capitalism in the information age. Gamage (2006) substantiates leadership in the context and derives fourth images of capitalism. Gamble (2011) introduces the notion of 'Capitalism 4.0' and affirms the birth of the new economy after a crisis. Xu (2008) substantiates the existence of global business citizenship as a transformational basis for ethics and sustainable capitalism. Sinay et al. (2020) argue that human capital is the most critical element after knowledge in modern capitalism.

As a result of systemizing the key findings from the above works, the following key manifestations of capitalism can be distinguished:

- The foundation on private property (its domination in the structure of capital in the economy);
- Favourable conditions for obtaining profit from capital;
- De-regulation and economic liberalism;
- Free trade and 'healthy' competition in sectoral markets in the economy;
- The economy's openness and adaptability to breakthrough innovative developments to foster sustainable global competitiveness.

Our research objects are therefore indicators that characterize the above manifestations of capitalism in Russia:

- Private property (as of year-end): percentage share of private companies, calculated as the number of private companies as a ratio of total companies. The data are taken from the statistical collection 'Regions of Russia: socio-economic indicators' published by the Federal State Statistics Service (2020);
- Balanced financial results: The profit minus negative economic profit of the companies' activities, according to the data set 'Interactive statistics and intelligent analytics of the balanced state of the regional economy of Russia in terms of big data and blockchain – 2020' published by the Institute of Scientific Communications (2020);
- The Index of Economic Freedom: According to data from The Heritage Foundation (2020);
- Freedom of Trade: Foreign trade turnover (the sum of imports and exports), according to data from The Global Economy (2020);
- Global competitiveness index: According to data included in The Global Competitiveness Reports 2010–2019 published by the World Economic Forum (2020).

The following indicators for the development of the digital society in Russia are also used:

- Share of households with Internet access, according to the report 'Digital Economy: 2020' published by the National Research University 'Higher School of Economics' (2020);
- Digital knowledge in society (original title of the indicator: 'knowledge'), according to the IMD's World Digital Competitiveness Rankings 2017–2019 (2020);
- Share of the population without information security problems when using the Internet, according to the report 'Information society in the Russian Federation. 2019' by the Ministry of Digital Development, Communications and Mass Media of the Russian Federation, Federal State Statistics Service, and National Research University 'Higher School of Economics' (2020);
- Share of the population aged 15–74 using the Internet daily, according to the report 'Information society in the Russian Federation. 2019' by the Ministry of Digital Development, Communications and Mass Media of the Russian Federation, Federal State Statistics Service, and National Research University 'Higher School of Economics' (2020).

The research timeline covers the years 2010–2020, when the digital society began to emerge in Russia (Table 1).

A quantitative analysis of the digital society's influence on the designated manifestations of capitalism in Russia is performed with correlation analysis. A systemic optimization of Russian capitalism through the management of digital society's development is performed with regression analysis. The policy implications for managing digital society's development to optimize Russian capitalism are developed with the simplex method for polycriterial optimization.

Results and discussion

Quantitative analysis of the influence of the digital society on Russian 'capitalism 4.0'. To obtain the quantitative characteristics of the influence of the digital society influence on the designated manifestations of capitalism in Russia, a correlation analysis has been performed. It illustrates the connections between the manifestations of capitalism and the indicators of the digital society (from Table 1). The results are shown in Figs. 1–4.

As shown in Fig. 1, the correlation between the share of households with Internet access in Russia and the share of private companies is 39.56% (a weak connection); the balanced financial result of companies' activities is 57.61%; the Index of Economic Freedom is 69.96% (a negative connection); trade openness is 16.59%; and the Global Competitiveness Index is 61.73%.

As shown in Fig. 2, the correlation between digital knowledge in Russian society and the share of private companies constitutes 12.88% (a negative connection); the balanced financial result of companies' activities is 86.42%; the Index of Economic Freedom is 93.65%; trade openness is 12.29% (a weak connection); and the Global Competitiveness Index is 94.18%.

As shown in Fig. 3, the correlation between the share of the population without information security problems in Russia and the share of private companies is 21.91% (a weak connection); the balanced financial result of companies' activities is 71.19%; the Index of Economic Freedom is 78.57%; trade openness is 11.40% (a weak connection); and the Global Competitiveness Index is 72.22%.

As shown in Fig. 4, the correlation between the share of the population using the Internet on a daily basis in Russia and the share of private companies is 2.70% (a negative connection); the balanced financial result of companies' activities is 85.43%; the Index of Economic Freedom is 89.62%; trade openness is −4.20% (a negative connection), and the Global Competitiveness Index is 86.74%.

The averaged correlation (direct average of the data from Figs. 1–4) between the manifestations of capitalism 4.0 in Russia and the indicators for the digital society is shown in Fig. 5.

As shown in Fig. 5, the averaged correlation between the indicators for the digital society in Russia and the share of private companies constitutes 11.47% (a weak correlation); the balanced financial result of companies' activities is 75.16%; the Index of Economic Freedom is 82.95%; trade openness is 0.72% (a weak correlation); and the Global Competitiveness Index is 78.72%.

Table 1 The manifestations of capitalism and the development of the digital society in Russia, 2010–2020.

Year	Intermediary indicators		Manifestations of capitalism				Indicators for the development of the digital society				
	Private property (as of year-end)			Balanced financial result (revenue minus negative income) of companies' activities, RUB million	Index of Economic Freedom	Trade openness: foreign trade turnover (sum of imports and exports), % of GDP	Global Competitiveness Index, points 0–100	Share of households with Internet access (%)	Digital knowledge in society, points 1–100	Share of the population without information security problems when using the Internet (%)	Share of population aged 15–74 using the Internet daily (%)
	Total companies	Number of private companies	Share of private companies (%)[a]								
2010	4,823,304	4,103,583	85.08[a]	6,330,589	50.3	50.36	42.0[a] (4.2)	48.4	64.432[b]	41.6[b]	26.0
2011	4,866,620	4,164,605	85.57[a]	7,139,536	50.5	48.04	42.0[a] (4.2)	56.8	65.245[b]	42.1[b]	35.3[b]
2012	4,886,432	4,195,016	85.85[a]	7,824,538	50.5	47.15	42.0[a] (4.2)	60.3	66.068[b]	42.7[b]	40.0[b]
2013	4,843,393	4,159,501	85.88[a]	6,853,753	51.1	46.29	42.0[a] (4.2)	67.2	66.902[b]	43.2	45.5[b]
2014	4,886,007	4,212,175	86.21[a]	4,346,793	51.9	47.80	44.0[a] (4.4)	69.9	67.746[b]	48.9	51.6
2015	5,043,553	4,377,776	86.80[a]	7,502,736	52.1	49.36	44.0[a] (4.4)	72.1	68.601[b]	65.8	55.1
2016	4,764,483	4,122,214	86.52[a]	12,801,581	50.6	46.52	45.0[a] (4.5)	74.8	69.467[b]	68.9	57.7
2017	4,561,737	3,935,974	86.28[a]	9,036,848	57.1	46.88	46.0[a] (4.6)	76.3	70.344	71.2	60.6
2018	4,214,742	3,619,813	85.88[a]	12,400,336	58.2	51.13	65.6	76.6	74.082	72.1	68.8
2019	-	-	85.49[b]	17,015,704[b]	58.9	49.07	66.7	76.9[b]	75.017	73.0[b]	78.1[b]
2020	-	-	85.09[b]	23,348,899[b]	61.0	47.09[b]	67.8[b]	76.9[b]	75.964[b]	73.0[b]	88.7[b]

Sources: Calculated and compiled by the authors based on Federal State Statistics Service (2020), IMD (2020), Institute of Scientific Communications (2020), Ministry of Digital Development, Communications and Mass Media of the Russian Federation, Federal State Statistics Service, National Research University 'Higher School of Economics' (2020), National Research University 'Higher School of Economics' (2020), The Global Economy (2020), The Heritage Foundation (2020).
[a]Calculated by the authors based on official statistics.
[b]Due to the absence of some data, we have provided the data according to the authors' evaluation of 'all other conditions being equal' based on the growth rate of the indicator for the years in which the actual data are accessible.

Thus, the most significant indicators of the digital society that positively contribute to the development of capitalism in Russia are the balanced financial results of companies' activities, the Index of Economic Freedom, and the Global Competitiveness Index. That is why it is expedient to use these indicators during optimization. The share of private companies as a percentage of the total economy and trade openness do not depend on the indicators for the digital society and cannot be optimized in this research; therefore, they are not considered.

Systemic optimization of Russian 'capitalism 4.0' through the prism of the development of the digital society. For a mathematical representation of the optimization modelling results, let us use the following system of symbols for the used indicators:

1. y_1—the balanced financial result of companies' activities;
2. y_2—The Index of Economic Freedom;
3. y_3—The Global Competitiveness Index;
4. x_1—the share of households with Internet access;
5. x_2—digital knowledge in society;
6. x_3—the share of the population without information security problems as a percentage of the total population using the Internet;
7. x_4—the share of the population aged 15–74 using the Internet on a daily basis.

Based on Table 1, three models of multiple linear regression are built. The regression statistics of these models are shown in Table 2.

According to the results of modelling from Table 2, the balanced financial result of companies' activities grows by RUB 120,245.15 if the share of the population without information security problems grows by 1%. It also grows by RUB 547,868.03 if the share of people using the Internet daily grows by 1%. An increase in the digital knowledge level of society by 1 point leads to an increase of the Index of Economic Freedom by 1.15 points and of the Global Competitiveness Index by 5.40 points.

Determination coefficients for all three models strive to 1, constituting 0.9501, 0.9479, and 0.9965, accordingly. Therefore, the change of dependent variables is almost 100% due to the change of factor variables. Significance F in all three cases is below 0.05, constituting 0.00342, 0.00387, and 0.000001, accordingly. The table value of F-criterion in case of $\nu_1 = 4$, $\nu_2 = 11-4-1 = 6$ (with $\alpha = 0.05$) constitutes 4.53. The F-criterion's observed (factual) values in all cases exceed its table value, constituting 13.91, 13.27, and 215.53, accordingly. Therefore, the regression equations are statistically significant and correct at the significance level $\alpha = 0.05$.

Thus, all three obtained regression models conform to the Gauss–Markov theorem, which proves their reliability. The systemic optimization of Russian capitalism through managing the development of the digital society requires the combination of higher digital knowledge in society, the share of the population without information security problems, and the share of the population aged 15–74 using the Internet on a daily basis, at which point the maximum growth of the balanced financial results of companies' activities and higher scores in the Index of Economic Freedom and Global Competitiveness Index are achieved.

Policy implications for managing the development of the digital society and optimizing capitalism 4.0 in Russia. In order to determine perspectives on how to manage the development of the digital society to optimize capitalism 4.0 in Russia with the help of the 'Solution search' function (a special function from the 'Analysis package') in Microsoft Excel by the simplex method, given the limitations (factor variables should not be lower than in

2020; all variables that are measured in per cent should not exceed 100), we set the target (optimization) values of the indicators for the digital society at a level that allows for the maximum growth of the manifestations of capitalism in Russia to be achieved by 2024 (the end of the digital reformation of the economy) (Fig. 6).

As shown in Fig. 6, the maximum growth of the manifestations of capitalism in Russia based on the development of the digital society is as follows: the balanced financial results of companies could be increased from RUB 23.35 million in 2020 to RUB 26.52 million in 2024, i.e., by 13.58%; the Index of Economic Freedom could grow from 61 points to 68.74 points, i.e., by 12.69%; The Global Competitiveness Index score could increase from 67.82 points to 98.65 points, i.e., by 45.47%; and the aggregate (summed) growth of all manifestations of capitalism in Russia could rise by 71.75%.

In order for this to happen, the indicators for the digital society need to have the following values: digital knowledge in society should grow from 75.96 points to 83 points, i.e., by 9.26%; the share of the population without information security problems needs to grow from 71.01% to 100%, i.e., by 36.96%; The percentage of the population using the Internet daily has to increase from 88.68% to 95%, i.e., by 7.13%; and the share of households with access to the Internet could remain unchanged, i.e., it does not require targeted management for the development of capitalism in Russia.

The following policy implications for managing the development of the digital society in order to optimize Russian capitalism are offered. First, there is a need to solve information security for Internet users in Russia through the adoption of anti-virus protection and personal data protection. Second, the regular use of the Internet by the general population should be supported and stimulated. Thus, we argue that the state should widen the list of provided state e-government services and strengthen protection for consumer rights in e-commerce transactions. Elevating the level of information security for individuals will be an additional stimulus for more active use of the Internet. Third, there is a need to develop digital knowledge in Russian society through widely accessible digital literacy courses. These should be provided as online trainings to allow for maximum accessibility, convenience, and to support the implementation of other recommendations.

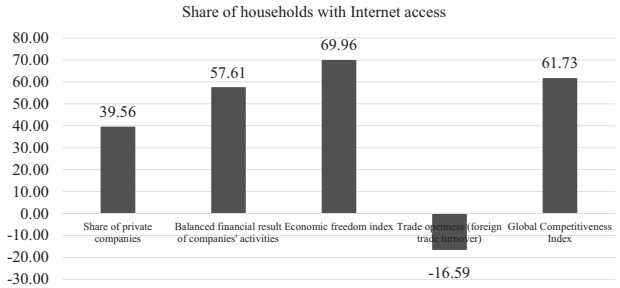

Fig. 1 Correlation between the manifestations of capitalism and the share of households with Internet access in Russia (%). Source: Calculated by the authors.

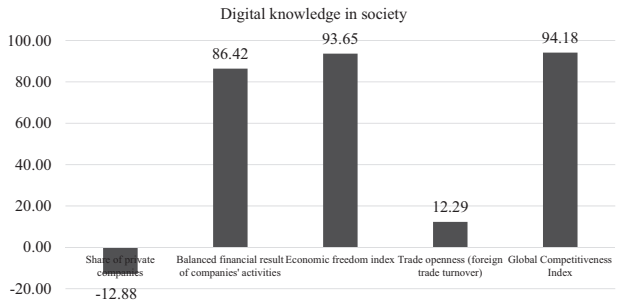

Fig. 2 Correlation between the manifestations of capitalism and digital knowledge in Russian society (%). Source: Calculated by the authors.

Policy discussion of the development of a digital society in Russia amid the COVID-19 pandemic crisis

The COVID-19 pandemic and the economic crisis caused by the social constraints that have been enacted have profoundly impacted Russian society. The consequences for the development of the digital society in Russia amid the COVID-19 pandemic include the following (Public Chamber of the Russian Federation, 2021); (RosBusinessConsulting, 2021):

- The portal of electronic public services received huge increases in usage as it effectively became the only option for individuals to access most public services (including the field of housing and communal services);
- Electronic communications have become the predominant form of communication due to the restrictions on the social interactions between people;

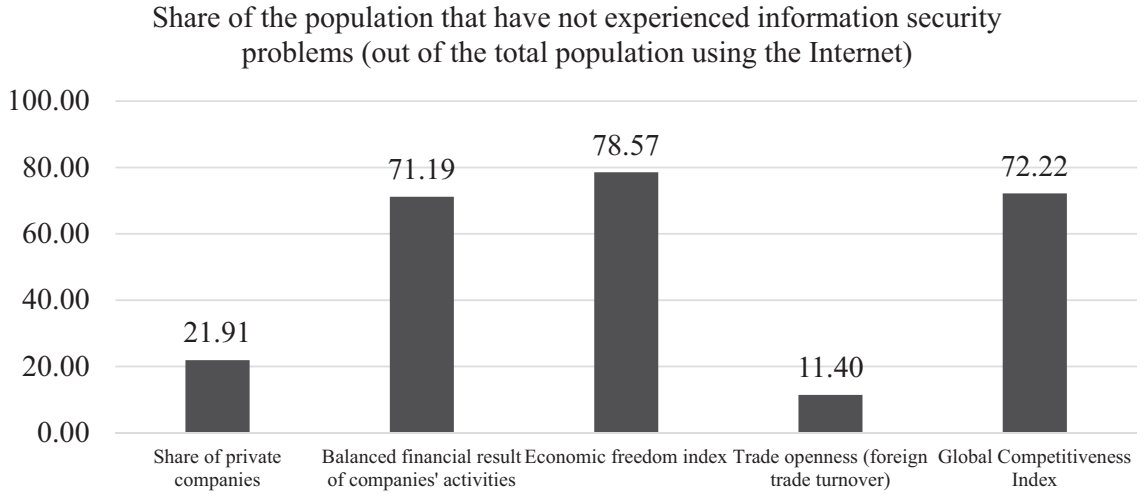

Fig. 3 Correlation between 'capitalism 4.0' in Russia and the share of the population without information security problems (%). Source: Calculated by the authors.

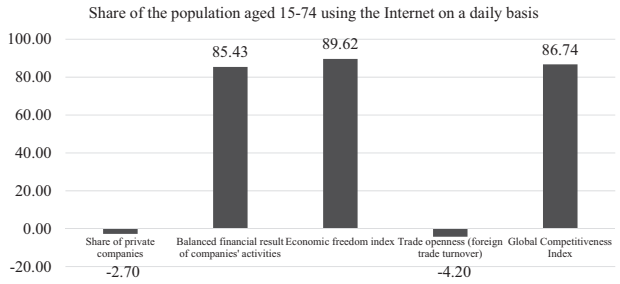

Fig. 4 Correlation between Russian 'capitalism 4.0' and the share of the population using the Internet on a daily basis (%). Source: Calculated by the authors.

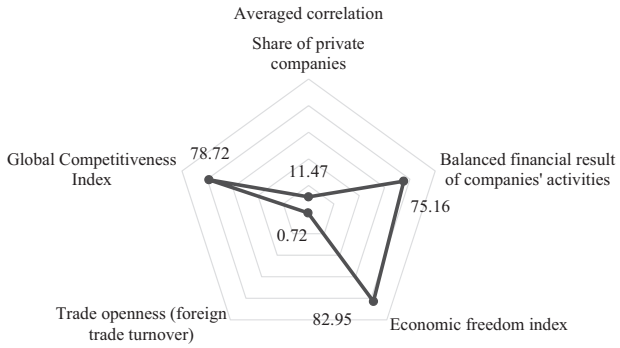

Fig. 5 Averaged correlation between Russian 'capitalism 4.0' and the indicators for the digital society (%). Source: Calculated by the authors.

Table 2 Modelling of the regression dependence of Russian 'capitalism 4.0' on the indicators for the digital society.

Regression statistics	Model of multiple linear regression		
	y_1	y_2	y_3
Multiple R (determination coefficient)	0.9501	0.9479	0.9965
Fobs	13.91	13.27	215.53
Significance *F*	0.00342	0.00387	0.000001
Constant	44,506,395.33	−18.58	−272.17
Regression coefficient if			
x_1	−614,230.10	−0.11	−0.33
x_2	−419,554.39	1.15	5.40
x_3	120,245.15	0.00	−0.20
x_4	547,868.03	0.01	−0.33

Source: Calculated and compiled by the authors.

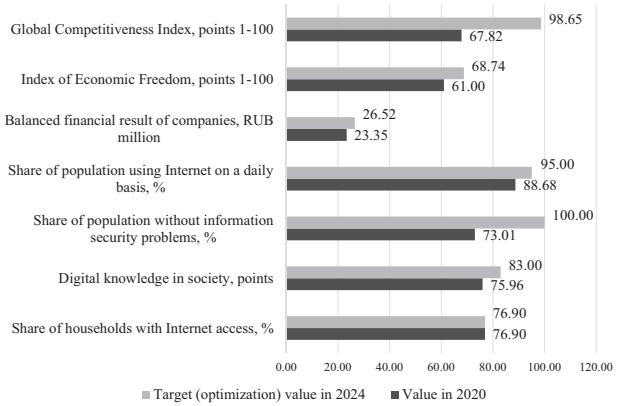

Fig. 6 The optimization model for progressing capitalism 4.0 in Russia through managing the development of the digital society, 2020–2024. Source: Calculated and built by the authors.

- The transition to distance learning has rapidly accelerated, increasing the popularity of digital education, including online self-study and in-home learning, thereby establishing that ICTs are essential to future learning and knowledge dissemination;
- Telemedicine became established with distant diagnoses, prescriptions for treatment, and a process to validate the provision of sick leave;
- Public concern and interest in cybersecurity and the protection of their personal data has increased;
- The legal responsibilities for communications made via the Internet have increased (particularly for online libel), and the legal framework of the Internet has become more dependable.

As a whole, these trends have contributed to accelerating the transition to the digital society in Russia. The policy of encouraging the development of a digital society in Russia amid the COVID-19 pandemic crisis has shown that 'capitalism 4.0' in contemporary Russia is characterized by a set of complex and contradictory features caused by globalization's new realities for scientific and technological progress and social order.

Responsibility, as a characteristic of production, consumption, and governance, is present among these features. The COVID-19 pandemic has revealed that 'capitalism 4.0' in contemporary Russia implies the need for durable goods and services in both a favorable and crisis economic situation. This is a clear separation from classical capitalism, in which the behavior of business entities is dictated exclusively by the commercial benefits available. Non-commercial (socially responsible) activities are actively carried out in Russia and have received a new impetus for development amid the COVID-19 pandemic crisis. Private enterprises strive to continue providing their products to the market to maintain their reputation; that is, reputation capital becomes of primary importance in such crises.

The features of the digital society also include the increasing value of electronic fund management. Private enterprises are actively pursuing automation based on Robotization, Big Data, Artificial Intelligence, the Internet of Things, and other advanced Industry 4.0. Management efficiency and decision-making are a new priority of capital management and a condition for enterprises' survival in an aggressive market environment. The unpredictability of the restrictions on social interactions—social distancing—requires enterprises to master new modes for the participation of their human resources in production and distribution processes. There is an ongoing transformation underway as business processes and value chains move towards greater automation and remote working and management in this regard.

Finally, the last key feature to look out for is the increasing power of consumers—the digital society—in fund management. The institutionalization of electronic communications and the exchange of information on the Internet in Russia amid the COVID-19 pandemic has contributed to forming a new type of consumer thinking. Consumers no longer rely solely on their own opinions when making purchase decisions but seek to study other buyers' reviews. A lack of feedback on a particular product or service is a signal of uncertainty and risk. Digital marketing is, therefore, now an objective necessity for companies engaged with 'capitalism 4.0' in contemporary Russia. Businesses strive to get positive feedback and neutralize negative opinions and reviews.

Thus, the policy for the development of the digital society in Russia amid the COVID-19 pandemic has created new markets and regulatory incentives for the emergence of 'capitalism 4.0' in contemporary Russia, and these will continue to develop in the post-pandemic period.

Conclusions

Since the 1990s, a unique model of capitalism has existed in Russia. The influence of the digital society's indicators on the visible manifestations of capitalism is limited and contradictory. We cannot increase the market share and openness to trade of private companies through digital society development. In this paper, we have documented that the digital society indicators have a diverse influence on other critical manifestations of capitalism in Russia.

However, the advancement of Russian capitalism could be accelerated through the effective management of a transformation to the digital society. This will not require a marked increase in the percentage of the population regularly using the Internet. The process to form the digital society—intensively and successfully managed in countries with mature capitalist systems (e.g., OECD countries)—is ineffective for Russia's progress and hence does not require effective management.

It has been proven that the maximum aggregate growth of the manifestations of capitalism in Russia based on the development of the digital society is up 71.75%:The balanced financial results of companies could be increased by 13.58%.The Index of Economic Freedom score could increase by 12.69%. Russia's score in the Global Competitiveness Index ranking could grow by 45.47%. This will be possible if digital knowledge in society increases by 9.26%, information security reaches 100%, and the percentage of the population using the Internet daily grows by 7.13%.

Thus, managing the development of the digital society to optimize capitalism substantiates the uniqueness of the Russian model and its specifics under the considerable influence of rapid advances in ICTs. Our results' practical value offers the possibility of applying the proven quantitative landmarks and the offered policy implications to manage the development of the digital society to optimize capitalism in Russia between now and 2024.

In addition, the development of the digital society is not the sole factor influencing the evolution of modern capitalism in Russia. One should also pay attention to such factors as the need for digital infrastructure, the broader usage of e-government, and the creation of high-tech businesses.

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Competing interests

The authors declare no competing interests.

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