TÍTULO: Influencia de las ideas de Karl Marx sobre la realidad económica del siglo XXI.

AUTORES:

RESUMEN: El objetivo del artículo es analizar la influencia del Capital de Karl Marx en la realidad económica del siglo XXI. Los autores del artículo utilizaron métodos científicos generales de análisis y síntesis para comprender el impacto de las enseñanzas de Marx sobre el Capital en la realidad económica contemporánea, así como enfoques sistemáticos, empíricos, analíticos y económicos, junto con otros métodos para estudiar la actividad económica de los actores sociales. El método de análisis comparativo se usó para estudiar el índice de capital humano en diferentes países, mientras que el análisis empírico se empleó para monitorear los estudios estadísticos abiertos relevantes.

PALABRAS CLAVES: mercancía, reproducción capitalista, trabajo, plusvalía, capital humano.

TITLE: Influence of Karl Marx's ideas on the economic reality of the 21st century.
AUTHORS:

ABSTRACT: The aim of the article is to analyze the influence of Karl Marx's Capital on the economic reality of the 21st century. The authors of the article used general scientific methods of analysis and synthesis to comprehend the impact of Marx's teachings on capital on the contemporary economic reality, as well as systematic, empirical, analytical, and economic approaches along with other methods of studying the economic activity of the social actors. The comparative analysis method was used to study the human capital index in different countries, while empirical analysis was employed to monitor open relevant statistical studies.

KEY WORDS: commodity, capitalist reproduction, labor, surplus value, human capital.

INTRODUCTION.
The appearance of Marx's Capital marked a revolutionary turn in economic thought: an economic theory was developed that gives a holistic understanding of the patterns of functioning of the capitalist mode of production and its development trends.

Marx’s teaching is relevant because he revealed the development laws not only of capitalism but also the general economic laws for all formations. Among the problems solved by Marx, which are of great theoretical value, it is necessary to note the in-depth development of the doctrine of the dual nature of the labor included in the product, genetic removal of money from the commodity, research of cost, development of the surplus-value theory, including its transformed forms, as well as justification of intermediary links in the transition from surplus-value to profit.
Perhaps, none of the teachings of the past had such practical impact on the life of mankind and did not cause such interest and different viewpoints as the Marxist teaching. The name of Marx, according to many contemporary scientists, is included in three or five outstanding thinkers of our time. There are different approaches in assessing the ideas of Marx, up to the opposite, polarized viewpoints, however consideration of this doctrine from the standpoint of differentiation of significant, deep, relevant ideas contained in this teaching seems to be a more balanced approach.

DEVELOPMENT.

Materials and methods.

In the present work, related to the study of the influence of Marx's Capital on the economic reality of the 21\textsuperscript{st} century, the works of Russian and foreign scientists were used. Theoretical methods of scientific knowledge served the research basis of the present article, in particular, the comparative economic analysis of the human capital index in some countries in 2018 was used, as well as the empirical method of knowledge and the historical method were employed that revealed the essence of the Marx’s theory and method.

Note that in this article the authors consider Marxism in the context of the theory of value, which is reflected in the key problems studied by Marx and his followers. Thus, surplus value is considered both as a source of wealth for capitalists and as a cause of social inequality.

In the economic science of Russia in the last quarter of the 20\textsuperscript{th} century, as believed by the authors, the influence of Marx's Capital on the economic reality of the 21\textsuperscript{st} century is studied insufficiently. This issue was considered by scholars, such as A. Buzgalin, A. Kolganov (2004), T. Piketty (2015), R. Nureyev (2018), A. Megill (2011), A. Biryukov (2010), P.N. Kondratov (2010), B.V. Korneychuk, E.A. Dragomirova (2010), and others. However, many aspects of the topic under consideration remain poorly developed due to a certain fragmentation, lack of integrity in the study of the problem that increases the relevance of this topic.
As Piketty argues, the essential feature of capitalism of the 19\textsuperscript{th}, 20\textsuperscript{th}, and 21\textsuperscript{st} centuries was the capital strengthening, while in the 21\textsuperscript{st} century these processes will be accelerated (Piketty, 2015).

The scientific heritage of Marx even in the 21\textsuperscript{st} century remains the subject of scientific discussion and has significant impact on philosophical thought in Russia and beyond. This is reflected in the publications of Russian scientists, as well as held conferences. This is due to the fact that the works of Marx touch upon a broad range of issues of social philosophy, many of which have not lost their relevance in our days.

The point is that, first of all, society is considered as a holistic, complex developing system, full of contradictions, which includes a variety of links and relationships. This concerns a deterministic approach to the development of society, the recognition of regularities in its development, taking into account national identity, provisions defining a role in the life of society, the mode of production of material goods, and dominance of social existence that largely determines social consciousness.

The application of the dialectical method is quite relevant in the analysis of social development problems, as well as the phenomenon of alienation, etc. Today, the relevance of many provisions of the economic theory of Marx is emphasized. The Capital, as the main economic work of Marx, allows comprehending the features, and specifics of today’s capitalism, analyzing the main stages of economic development of modern society.

The topic of class analysis, its socio-economic foundations is relevant in the current context. This is due to the formation in modern conditions of a new social class of workers with temporary or part-time employment, called the precariat. Despite the fact that Marx’s economic theory is often referred by critics to one of the stages of the past development of economic science, Neoclassicism, as noted by Marx's researchers, is permeated with ideas, theoretical provisions, and elements of the methodology of Capital.
The theory of Marxism is, first of all, a vivid example of the knowledge of the essential laws of economic relations development. Although, it should be noted that the modern presentation of basic economic knowledge in higher school that is designed to play the role of fundamental basis leaves much to be desired.

The history of this problem is as follows. In the early 90s of the 20th century in the political economy of Russia, there was a need to implement a new vision of social processes. Undoubtedly, the presentation of Marxism in the Soviet education system was accompanied by some distortion and primitivization. Moreover, sometimes it was too ideologized. However, this was enough to automatically declare in the early 90s negative everything that in Marxism was rational and ensured the growth of empirical and theoretical knowledge (Megill, 2011).

Some world-known scientists still continue to attack Marxist political economy from the standpoint that it "considers the manufactured product solely as a result of the hired workers’ labor, while the role of the entrepreneur (capitalist) reduces only to the misappropriation of part of this product, etc. (Nureyev, 2018, p. 80). In fact, the main goal of Marx was to show the source of all specific types of income (profit, interest, rent, salaries of management personnel, salaries of people employed in the nonmaterial services sector, etc.), which was really unpaid physical labor of workers employed in the material sphere. This, in no way, detracts from the importance of all other participants in social production: without scientists, engineers, entrepreneurs, etc., workers were unlikely to be able to carry out their activities, but this fact does not change the source of all types of income.

The issue of exploitation is already a problem of fair or unfair distribution of newly created value among the participants of social production. This problem is understandably eternal, but again, somewhat different than the source of income.
Results.

Proper application of Marx’s methodology helps to explain many phenomena observed in the 21st century, and, first of all, the globalization processes (Biryukov, 2010, p. 137).

According to fundamental research, capital as an economic category includes the following components: permanent capital, which retains its value by transferring it to the manufactured product, and manifests itself as a means of production; and variable capital, which is represented by labor resources, and changes its value (wages) in the course of production producing certain increment, namely, surplus value.

The main direction of capitalism is focused on achieving maximum profit, so the necessity of permanent development and implementation of innovative technologies in production, and development of new equipment and facility is justified. Due to the constant development of technological support of the production process, it is possible to reduce the variable capital, which, in turn, provides surplus value, which is further transformed into profit, but the gradual growth of fixed capital leads to a decrease in the overall rate of return. This phenomenon can be stopped by reducing the cost of fixed capital and wages.

The use of these factors also explains the desire of countries, whose material production priority is economic efficiency (as opposed to countries with a priority of social efficiency) to continuously expand the zones of exploitation, from which follow the actions of the World Bank, the International Monetary Fund, the World Trade Organization, etc.

These actions are aimed at imposing on the post-Soviet states the so-called structural adjustment programs in order to provide the new territories with the material and social infrastructure necessary for further capital accumulation.
In other words, many of the world events observed today are based on the desire of capital to retain the level of profit necessary for its continued existence, which, in turn, follows from Marx's law developed yet in the 19th century concerning the decreasing tendency of the rate of profit. Moreover, this law is not the only important today theoretical aspect of Marxism.

Capital seeking to expand at a certain stage of its development in an increasingly tough competition understands that it cannot do without taking care of the person. This concern is actually a veiled form of profit concern and, in fact, a more sophisticated form of exploitation. Thus, starting from the theory of Marxism, one can explain the reasons for the emergence of modern management. It arises only at a certain development stage of capitalism, when other methods that restrain the inevitable decline in the rate of profit, gradually lose their effectiveness (Kondratov, 2010, p. 197).

In today's world, engineering and technology require continuous improvement in order to increase the competitiveness of goods, and therefore, respectively, require improving the qualification of employees, their constant training and retraining. Therefore, all-round development, and most importantly, the employee's interest in quality work are necessary conditions for the normal development of capitalism.

This implies the modern nature of the motivational practice of various organizations that consists in making the employee organization’s organic part that will allow using all its obvious and hidden opportunities. For this purpose, both material (high salary and social package) and nonmaterial (for example, creating the illusion of joint interests and common cause) forms of motivation are used. Therefore, the human desire for self-development and self-improvement takes his spare time, a person after the end of the working day is still engaged in the organization’s problems, developing ways to optimize production and improve efficiency. In other words, the boundaries of the working day become blurred (Korneichuk & Dragomirova, 2010; Chang, 2013). According to Marx’s theory, these phenomena indicate the absolute surplus value.
The Marxist theory provides more complete justification of human capital as an economic category.

The term human capital was introduced into scientific circulation by A. Smith and was further developed in the works of G. Becker, awarded the Nobel Memorial Prize in Economic Sciences, as well as in other scientific fields, such as sociology, political science, philosophy, etc.

Human capital, as an economic category, is a quantitative assessment of the value of knowledge and skills of an individual. The so-called human capital index is used for the quantitative measurement of this value (Dudin et al., 2017).

Studies of many international organizations are devoted to the issue of the human capital index. A detailed calculation and analysis of the Human Capital Index (HCI) were presented in 2017 in a report given at the World Economic Forum. This report was prepared jointly with Harvard University and the Mercer Human Resource Consulting company (The Global Human Capital Report, 2017). The report provides a fairly detailed description of human capital, its components, and features of measurement and calculation of the index. Thus, one of the human capital elements is health, namely, mental, psychophysical, and physical health, as well as individual cognitive abilities.

The value of capital is justified by the socio-economic and political context. This report substantiates the components used to calculate the HCI, which include health, education, employment, and factors affecting their development and multiplication. Analyzing the health factor, researchers assess not only the level of morbidity and mortality from diseases but also the quality of life, well-being, features of the health system, the availability of medical services, and the quality of service.

Studying the education factor, scientists pay attention not only to the quality of educational services but also to the orientation of the individual, the purpose of education, its accessibility, as well as the gender characteristics of professional groups.
Exploring the employment of the population, the socio-political aspects of the state are analyzed, as well as attention is focused on the level of employment and unemployment. Since the factors affecting the quality of life of the individual are singled out separately, the environment plays an important role, whose indicators include socio-economic conditions (as macro environment indicators), infrastructure, and features of employers.

The United Nations produces Human Development Reports (HDR) on a regular basis every year since 1990 (Human development indices and indicators, 2018). These reports are developed within the framework of the UN Development Program.

In the year 2018, the World Bank was involved in the calculation of the HCI, which offered its draft project for development of HCI (The human capital development project, 2018). Within the framework of this project, a set of measures was proposed, focused on the attraction and implementation of investments in the development of people to promote the so-called social equity and ensure economic growth.

As it was stated above, based on the interpretations of the HCI, represented in the project, this indicator is integrated, and focuses on the quantification and identification of the correlation level between the degree of development of the health and education systems, efficiency of labor, and income generation of citizens in a specific period of time (Changing the nature of work. World development report, 2019).

For researchers, the influence of education and health services on the efficiency of labor of the population is of paramount importance. By calculating the HCI, economists will be able to determine the future possible efficiency of labor of an individual, who was born in a certain time period and will reach the age of 18 years in a designated year. The maximum efficiency of labor has an adult, who has received a full education and has excellent health. Therefore, the maximum value of HCI (in some interpretations, one can find the concept of ideal value) is unity. Other indexes are
determined by a percentage (or proportion) of the maximum (ideal) value.

The World Bank has calculated an HCI for 157 countries. In the framework of this calculation, Russia ranks 34th that determines a fairly high level of human capital. When calculating the Index, the scientists concluded that the efficiency of labor of a person, who was born in 2018 in Russia, after reaching adulthood, receiving a full education, and having no health problems, will be 73%. This value allows the Russian Federation to outperform the countries of Central Asia and South America, as well as some countries with higher average revenue (Figs. 1 and 2).

Figure 1. The HCI in selected countries, 2018 (Human development indices and indicators, 2018).

The leading position of the countries in terms of the HCI, as well as the competitiveness of labor resources in the context of globalization, is provided by the state social policy focused on the development of health care, science, technology, and innovation. The policies of Singapore, Japan, and South Korea aimed at the development of human capital determines their economic growth.
The conducted study has shown that in countries with an average index in the 50th quantile, the labor efficiency of an individual, who was born in 2018, upon reaching his adult age and having no health problems, will be 56%. While countries with an average level of index components in the 75th quantile will show 72% of the maximum possible level (100%). (See Table 1).
Table 1. The expected efficiency of labor of an individual born in 2018 upon reaching adulthood (grouping of countries relative to the values of the HCI) (Human development indices and indicators, 2018)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>The quantile to which the country belongs depending on HCI</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>25th quantile</td>
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<tr>
<td>1 Indicator 1</td>
<td>0.95</td>
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<tr>
<td>The expected proportion of children, who were born in 2018 and will live to the age of five years</td>
<td></td>
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<tr>
<td>2 Indicator 2:</td>
<td>9.5</td>
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<tr>
<td>The average length of schooling for children (ages from 4 to 18), (years)</td>
<td></td>
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<tr>
<td>3 Indicator 3</td>
<td>0.79</td>
</tr>
<tr>
<td>The projected proportion of 15-year-old young people, who will live to be 60</td>
<td></td>
</tr>
<tr>
<td>Total HCI (1<em>2</em>3)</td>
<td>0.43</td>
</tr>
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</table>

Russia has quite high values of the indicator reflecting the expected proportion of children, who have born in 2018 and will survive to the age of five years. When calculating this figure, economists took into account data on the mortality of children under five years of age. Data of the Federal State Statistics Service (Rosstat) for 2016 have shown the probability of death of children from birth to 5 years equal to 7.4 out of 1,000 people. This suggests that the expected proportion of children born in 2016, who will reach the age of five years, will be 0.99.
The World Bank points out that the high-income countries ensure a high life expectancy of the population, and almost all children live up to school age, while low-income countries show other data: one child in 10 does not survive to the age of five.

According to the World Bank, the Russian Federation is ahead of the USA, Canada, China, and other countries in terms of the average length of schooling of children (ages from four to 18 years). But the United Kingdom, France, Germany, and Singapore are ahead of Russia in terms of this indicator. The average duration of education in the Russian Federation is 13.8 years (while the maximum possible duration is 14 years).

**Discussion.**

Human capital is currently a key category of the innovation economy, the most important resource of the information society. There are individual human capital, national, and corporate capital. National human capital is a part of the national wealth of the country, a productive factor of economic development based on soft power, on the level of education of labor resources, on the instrumental and technological support of intellectual labor, and the organization of production processes. National human capital includes features of the environment and work activities. The key factors affecting the development of national human capital are competition, innovation, and investment.

Investments in human capital have a number of features. Since human capital directly depends on the length of the individual's working period, the earlier investments are made in the quality of labor resources, the earlier the return on investments can be received. Human capital development has an upper bound, which is also related to working age. Currently, investments in human capital are the most profitable both from the standpoint of the individual and society in general.

Corporate human capital is a set of knowledge, skills, personal characteristics, and qualities of the company's employees. It is a resource that employees transfer to their employers.
As it was already noted above, the high level of competition defines new requirements for the development of the organization's personnel that primarily affects the expansion of capital. Improving the quality of human resources, as well as increasing human capital, can be defined as the concern of the organization for profit. Human resources management at the present stage is predominated by the humanistic approach, which is focused on the inclusion of employees in the corporate management process, on the development of an effective corporate culture, a system of motivation and flexible management.

Two operational approaches are used to form and implement an effective strategy and staff development:

- A strategic professions model which involves the concentration of corporate development programs on several important key professions that are the core of the company development.
- A strategic values model which involves the development of a set of corporate values that are embedded in the goals and activities of all employees.

One strategic goal of the company is the accumulation and expansion of capital. Contemporary conditions, innovative economy, digitalization, and globalization dictate new requirements for the labor resources quality, therefore investments in human resources and technological support will allow increasing the competitiveness of the organization in the market.

It is also possible to distinguish a mixed operating model of human resources development, where the organization improves the quality of personnel, highlighting key professions and investing in them, as well as forming common goals and directions at both the individual and corporate levels.

As a sociological illustration, below is given an example of a study conducted by the authoring team at a number of Russian industrial enterprises in February-March of 2019. This study is devoted to the analysis of the organization’s corporate culture and employee loyalty to the employer company. This study involved 150 people, among whom 67% were males and 33% – females. The
The age distribution of respondents was as follows: 21-30 years – 23%; 31-40 years – 41%; 41-50 years – 21%; and over 51 years – 15%.

The company's employees were asked to assess the importance and significance of components of corporate culture, such as adaptation programs for new employees, corporate training, location of the company, provision of voluntary health insurance policy, partial or full payment for fitness, corporate style, and dress code, and corporate office design. The assessment had to be given on a ten-point scale, where 10 points corresponded to the maximum assessment of the importance of the indicator, and one point, respectively, – the minimum. The results are shown in Figure 3.

![The rates of corporate culture components of the company](image)

**Figure 3. Assessment of corporate culture components.**

As one can see in Fig. 3, corporate training, adaptation programs for new employees, the provision of a voluntary health insurance policy, as well as partial or full payment for fitness are most important for the company's employees. These components are of key importance in the formation and development of the human capital of the organization both at the individual and corporate levels.
Also, respondents were asked to distinguish factors that increase their loyalty to the employer (see Fig. 4).

![Graph of factors affecting the loyalty of the employee to the company]

Figure 4. Assessment of factors affecting the loyalty of the employee to the company.

Respondents were also asked to rate the indicators on a ten-point scale, where 10 points were the maximum assessment of the importance of the indicator, while one point, respectively, was the minimum. As a result, respondents gave a fairly high assessment of all factors, and the most important for them were the level of wages, career opportunities, training, and stability.

Also, respondents were asked to answer the question, whether they were willing to stay at work overtime. This willingness was expressed by 67% of respondents.

From the above example, it is seen that the formation and development of human capital by the company affects the productivity and loyalty of employees to the organization.

The development of human capital and improving the quality of human resources at the present time are primarily determined by digital information technologies, the use of specialized platforms and programs aimed at increasing efficiency of labor, optimizing the equipment used, minimizing
resources and ensuring their rational use, as well as providing qualitative improvement of products and services that affect the retail demand forecasting (Schwab, 2016).

Global digitalization is the locomotive of the world economy. However, it is necessary to note the adverse specifics of the digital economy, namely, the fact that it universally results in higher unemployment because the use of digital technologies and robotics lead to a reduction in number of jobs, as well as to the disappearance of a number of professions.

According to E. Brynjolfsson and McAfee A. (2014), the economy of the 21st century will change qualitatively. The mass replacement of skilled labor with capital will begin, which will result in a sharp decrease in employment.

Based on studies conducted in the USA in 2016, D. Acemoğlu and P. Restrepo (2016) came to the empirical conclusion that one new robot replaced 1,000 employees; while digital technologies lead to even greater job cuts than robots (this parameter is four times higher). Moreover, the process of robotization and technologization leads to a decrease in wages. Also, these processes will lead in the future to an increase in the polarization of labor resources and their incomes. That is, the labor market will increase the demand for highly skilled labor, owning digital technologies, as well as for low-skilled labor, and therefore, low-paid personnel whose replacement by robots is impractical. This situation can lead to increased income inequality and class stratification.

Figure 5 illustrates the projections of employment in the US economy.
Figure 5 presents a prognostic curve that shows the number of employed in the USA up to 2050 in three cases:

1. In the context of retaining the current economic model ($L_P$ curve), an additional 100 million jobs could potentially be created by 2050;
2. In the context of a digital economy, the number of jobs will decrease ($L_{CK}$ curve);
3. In the context of robotization, an even greater decrease is observed in the level of employment ($L_{CKR}$ curve).

Therefore, in order to maintain the workplace and be competitive, the individual must have the competences to apply digital technologies in production activities. Here one can observe a dualistic approach to the accumulation of human capital, as well as bilateral interest. On the one hand, employees are aimed at obtaining new competencies to ensure their demand in the labor market; while on the other hand, companies are focused on attracting competent employees, their
development and preservation in the company that leads to the expansion of the capital of organizations. This interest in highly qualified personnel leads to flexibility in the organization of labor processes and management that leads to the emergence of various types of employment, such as freelance, remote work at home using information technology and the Internet, and part-time employment. Informatization, robotics, technologization, and the use of highly qualified personnel lead to lower costs and capital accumulation.

CONCLUSIONS.

Marx's ideas remain relevant today as a system of values, as an ideology, philosophy, utopia due to the existence in modern industrial countries of a sufficiently high percentage of proletarians, marginals, and lumpens among the population of these countries, for which Marxism is relevant as an ideology and radical doctrine.

It should be noted that assessing the teachings of Marx requires a balanced, objective, systematic approach, due to the fact that Marxism is a complicated system of views and a symbiosis of values, scientific knowledge, and methodological tools.

The conducted theoretical and applied research has allowed drawing the following conclusions:

1. Marx's Capital makes it possible to understand and analyze the specifics of modern capitalism, to consider the main stages of economic development of modern society, and to identify problem areas.

2. Marx's ideas allow evaluating human capital as variable capital, which is represented as labor resources. Accumulating human capital and improving the quality of human resources, companies increase the efficiency of labor, improve the quality of products, and expand their capital.

3. The problems of class inequality and employment in the context of global digitalization and the use of information technologies remain quite urgent. These conditions give rise to a polarization of
employment, cause a reduction in the number of jobs and lower wages, as well as an increase in the demand for highly qualified and low-skilled personnel.

4. Contemporary conditions determine the emergence of a new class of workers with temporary or partial employment (precariat), as well as new forms of employment, such as freelance and remote work.

In this paper, the authors considered the influence of Marx's theory on the understanding of the modern economy. The article covers not all the ideas of the outstanding economist. In the future, additional research is needed, including studies on the impact of Marx's theories on the understanding of the global economic crisis.

A well-reasoned application of Marx's theory even at the present time will help to explain the essence of phenomena such as economic globalization, capital accumulation, income inequality, new forms of employment, etc.

**BIBLIOGRAPHIC REFERENCES.**


DATA OF THE AUTHORS.

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