

Human Capital and Sustainable Development in a Religious Context

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Abstract: The purpose of the study is to evaluate the impact of human capital (HC) on the sustainable development of a country or region through the prism of religious values. The following indicators were used for the analysis: Human Development Index, GDP per Capita, and Adult Mortality Rates in Orthodox Russia, Muslim, and Orthodox Kazakhstan, and developed countries dominated by Protestant religion, such as the United States, the United Kingdom, and Germany. The results show that differences in socio-economic growth between countries exist because the religions and cultures that influence those countries are different. Russia's and Kazakhstan's delay in capitalizing human capital may be provoked by the difference in the attitude these two countries have towards labor compared to other countries chosen for the study. The high quality of formal education in Russia and Kazakhstan is largely offset by a negative Orthodox and Muslim attitude to material achievements and financial prosperity. Orthodox representatives perceive individual wealth and career aspirations as sin and arrogance. The results of the study may be useful in teaching cultural disciplines.

Keywords: human capital, Orthodoxy, Protestantism, religious values.

Along with science and education, culture plays an important role in human capital (HC) development. HC is considered a central element of an innovation-based economy (Matousek & Tzeremes, 2021). Human capital has many definitions, each of which tries to define this entity through one or another of its relations with other economic parameters (Ali et al., 2018; Rocha et al., 2019; Samans, 2017; Zallé, 2019). In the most generalized generalization suitable for this study, human capital can be defined as the totality of knowledge, skills, and experience inherent in individuals, groups, or societies. This set also includes the same meta-tools that increase these skills and knowledge, i.e., education, education, health, values, and knowledge management infrastructure that supports them (Prasetyo & Kistanti, 2020). However, building such an economy seems impossible without understanding that the level of HC development is heavily dependent upon national mentality and its value system (Bachmann-Medick, 2017; Mukri et al., 2017).

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Nowadays, the world is rethinking religious and cultural values; thus, exploring their role in public life is important. Culture and religion both fulfil several functions for an individual and the community. Specifically, they define the way people think and make decisions. Cultural and religious values exist at the intersection of motivation and worldview, and thus they can shape the life path of single individuals and large communities. As a product of social interaction, human values have their source in religious beliefs, culture, and traditions (Agbogun, 2019; Mukri et al., 2017). Religious and cultural values make up an important part of a national value system (Lee et al., 2019). Their general function is to regulate human behavior and social activity. Culture and religion are closely related to worldview because someone's worldview is a combination of cultural and religious values. Even in the modern reality of secularisation, religious symbolism, the unconscious archetypes represented by religious patterns of thought and behavior, remain among the strongest determinants of behavior (Agbogun, 2019). Understanding the role of culture and religion as determinants of economic processes actualizes the problem of the study.

The relationship between human capital development and economic growth has been a focus of research for a long time (Urbano et al., 2019). Economic growth may be understood as the generally accepted meaning of this term in the economic literature as an increase in the production of economic goods and services for a certain period (Ali et al., 2018; Han & Lee, 2020; Zallé, 2019). Many observations have shown a connection between single economic indicators and changes in human and social capital. This current study aimed to identify the link between human capital development and economic growth (as measured by GDP) in countries that have implemented different development models.

Because the article deals with the relationship of religiosity with economic factors, religiosity must be defined. This study uses the term religiosity in a broad sociological sense as the numerous aspects of religious activity, dedication, and belief (Farooq et al., 2019). This paper offers a comparative analysis of human capital development and economic growth in predominantly Orthodox Russia, where 72% of respondents in 2008 identified themselves as Orthodox (Lamoreaux & Flake, 2018), Kazakhstan, where Muslims form around 70% of the population, and Orthodox citizens account for 26% (Summers et al., 2017), and Protestant countries, including the United States, the United Kingdom, and Germany. Each of these three countries has specific features in the manifestation of religiosity and historical features of Protestantism's influence on behavior and economic models (Kersting et al., 2020; Lee et al., 2019; Toprak, 2019).

The choice of these countries is due to the possibility of comparing the impact on the economy and living standards of different models of religiosity and traditional culture - Orthodox, Muslim, and Protestant in several variants of ethnic historical implementation. At the same time, the Russian Federation and Kazakhstan represent the region of post-Soviet countries; other countries are traditional open democratic societies. This work examines HC's impact on economic growth (EG) by establishing the connection between EG and HC-related factors, such as religious beliefs, behavioral models, morals, and ethics.

Literature Review and Theoretical Framework

Many researchers have independently concluded that a connection exists between the values of a certain culture and economic growth and noted the influence of a mass religion on a given country on the formation of cultural values. Silantieva (2018) argued that cultural values are social standards that guide the behavior of individuals within the group. The system of cultural and religious values affects HC development and defines its quality. Mamedov et al. (2019) stated that human capital is the driving force of the economy that causes the global community to change. Human capital is defined as the main socio-cultural resource of society,

which influences the efficiency of production and innovation activity (Mamedov et al., 2019; Rocha et al., 2019). Prasetyo and Kistanti (2020) defined HC as one of the four pillars of sustainable economic growth. Matousek and Tzeremes (2021) reported the statistically significant and positive impact of HC on economic growth with a sample size of 100 countries. Thus, several researchers point to the possibility of relying on GDP growth as an indicator deeply connected with human capital.

Over the past three decades, HC has grown steadily at about 1% per year, accounting for 0.5% of annual world GDP growth. The total working hours have continuously declined by contrast. Hence, HC is projected to remain the main driver of growth over the next two decades (Han & Lee, 2020). HC is closely related to economic complexity because countries with higher economic complexity have stronger production capabilities and are more likely to achieve significant economic growth (Ali et al., 2018). Furthermore, increases in HC can increase a country's income, and vice versa (Matousek & Tzeremes, 2021).

Human capital continues to be the focus of research on economic (Biryukova et al., 2018; Snurnitsyna, 2018; Sycheva et al., 2019) and innovative development (Dzhioeva & Tavasieva, 2018). HC has also been investigated from the cultural (Mamedov, 2019; Mamedov et al., 2019; Weller et al., 2019) and philosophical perspectives (Efimova et al., 2016; Hadley, 2019). Zallé (2019) argued that investments into human capital and the fight against corruption might turn the curse of an absence of natural resources into a blessing. Numerous psychologists (Lee et al., 2019; Schwartz & Sortheix, 2018), economists (Yong et al., 2019), and culture experts (Silantieva, 2018) have analyzed culture as a fundamental category. A review of the literature shows that scholars tend to look at the philosophical aspect of religious values (Pottenger, 2020). Furthermore, a vast number of studies have investigated the role of religion in the building of human values (Agbogun, 2019; Ives & Kidwell, 2019), recent transformations of religion in the EU countries (Pace, 2019; Smirnov & Miroshnikova, 2019), and the impact of religion on the global economy (Mukri et al., 2017; Toprak, 2019).

Religiousness and cultural context are a significant part of human capital, but they are much more difficult to quantify, unlike the latter. At the same time, as can be seen from the above works, the religious component, as an ideological one, is one of the structurally most significant in the complex concept of human capital. Therefore, measurement of the influence of culture and religiosity, which is extremely difficult to measure directly using parametric methods, must be accounted for.

Religion has positively impacted economic development in Asia and Europe, contrasting to somewhat positive but disputable results in Africa. The generalized system method applied by Qayyum et al. (2019) to data from 110 countries confirms the estimate of the relationship between religion and economic development in these regions' countries. In the Americas, the relationship between religion and economic growth statistically is not robust. Both developing and developed countries can experience the positive effects of religion on their economic growth and sustainability (Qayyum et al., 2019). Simultaneously, this positive effect is largely provided by the small religious groups, which build social networks to promote non-formal contract enforcement mechanisms. Hence, small churches are significant arenas for economic development (Karaçuka, 2018).

Culture holds the core of urban development indexes, but cultural indicators are not directly included in evaluating human development and human potential. In this regard, some researchers concluded that culture and religion as factors of influence dictate the need for a philosophical-cultural approach to research on HC. According to them, culture is an essential sign of and even a form in which human capital exists (Weller et al., 2019).

The classical criticism of Max Weber's ideas has undergone significant changes during the second half of the twentieth century. In his idea of the connection between religiosity and the formation of capitalism in its modern form, a more generalized component (Guler & Ozer-

Imer, 2019; Samuelsson, 2020; Yong et al., 2019) is recognized as adequate. In particular, the main question is why, given equal opportunities and a development context, capitalism in its current form did not arise in other regions of the world (Barro & McCleary, 2019; Friedman, 2021; Zafirovski, 2019).

The current research seeks to evade criticism or support for discussion around Weber's ideas. This current takes into account the relationship between HC and GDP as the main indicator of economic development and the fact that the religious and cultural components are decisive for the dynamics of the manifestation of HC. This article tries to establish a relationship between these values for different countries. The study is tentative and cannot claim to be perfectly completed but aims to reveal a trend if any.

Comparatively low indicators of the Human Development Index and some other socio-economic indicators for Russia require a search for ways to more effectively develop human capital as an important component of economic growth. Finding ways to intensify the formation of human capital is also important for all developing countries. This study is one of the first to focus on establishing links between factors of actual religion and cultural stereotypes as factors influencing the quality and efficiency of economic development.

The theoretical and methodological basis of the work is comparative analysis based on large statistical data on the principle of maximum generalization of the studied variables. The variables used are indicators that are accepted by most researchers as markers or predictors of economic development, as discussed above in the previous sections. To control the indicators, extensive statistical data from confirmed official government sources are used. For the maximum generalization of data, countries are selected for comparison in which there is a qualitative dominance of one religious trend in the minds of the majority of the population, in the mass media, art and other forms of symbolic activity (Barro & McCleary, 2019; Pottenger, 2020; Qayyum et al., 2019; Samuelsson, 2020). The study has limitations, which are described in the corresponding section below.

Problem Statement

This work analyses how religion and culture influence HC and EG. The analysis of HC as a socio-cultural resource that affects economic, social, and innovative growth involves examining the contribution of religion and culture. The comparative study aims to identify the link between HC and EG by investigating the impact of religion and culture on HC and EG in Russia, Kazakhstan, the United States, the United Kingdom, and Germany.

These countries were selected for the study on the following principles. Russia and Kazakhstan are post-Soviet countries with similar economic models but different religious backgrounds (Russia is predominantly Orthodox, and Kazakhstan is predominately Muslim). The United States, the United Kingdom, and Germany represent countries connected by common cultural and historical roots and a high level of economic development; the United States, with a significant mixture of nationalities and religions, occupies the highest lines of economic ratings. Thus, the study examined three separate axes for comparing different countries: religiosity, economic development, and the cultural-ethnic characteristics of the dominant mentality.

Methods and Data Sources

The comparative study compares the impact of religion and culture on specifications of EG in different countries, such as Russia, Kazakhstan, the United States, the United Kingdom, and Germany. The researchers compared statistical research material concentrated in several specialized studies, especially from Russia and Kazakhstan (Biryukova et al., 2018; Janshanlo

et al., 2019; Panzabekova et al., 2019; Samans, 2017; Shaimerdenova & Garcia-Zamor, 2017; Sycheva et al., 2019), as well as public data from statistical studies of the World Bank (The World Bank, 2018, 2019). The following indicators were analyzed: the Human Development Index, GDP per Capita, and Adult Mortality Rate. These data were collected from the World Bank, and they reflect the economic situation of selected countries as in 2018. The study also reviews a group of works about the impact of HC on EG, which summarizes previous findings in the field and analyzes the vision of many scientists on the research problem. The key ideas were identified through textual analysis and then compared with independent statistical data from international rating resources mentioned above. This article considers the static value of GDP per capita as a fixed result of long-term economic development. Because human capital is the result of the activities of many generations, it is better to consider GDP as a point, as a fixation of long-term development results. Moreover, in this case, the question of the exact choice of a measuring point or reference point is not of fundamental importance because for the purpose of research, we measured experience on a scale of several decades. More accurate measurements should be an issue for further research.

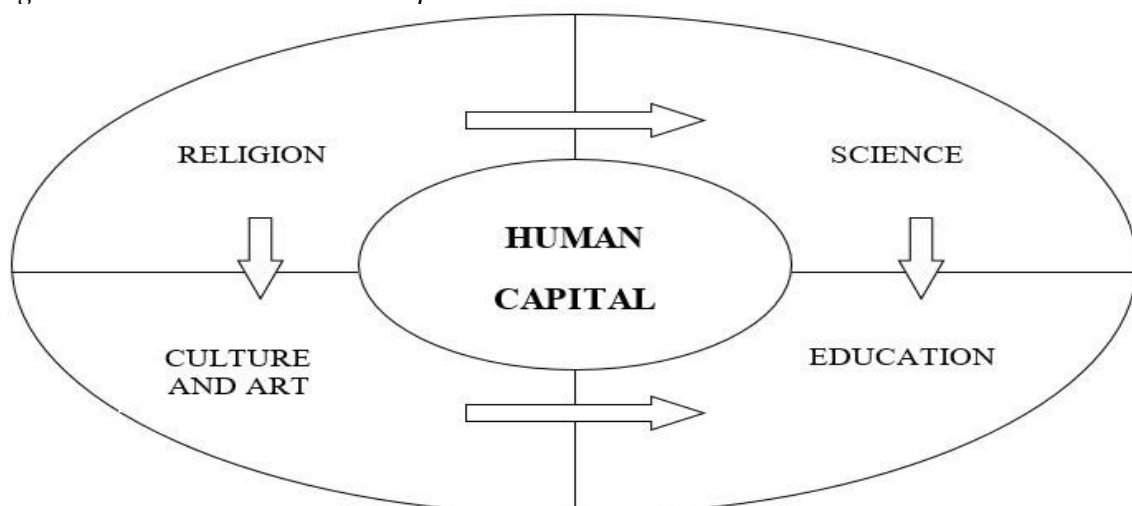
For the study, selected countries, only from the aggregate of the most economically developed and from the post-Soviet camp; thus, no data were used for China, Arab countries, and other regions, the development trajectories of which changed very much in the second half of the twentieth century and in which the relationship between economic development and religiosity is more ambiguous and less studied in modern literature. In any case, these regions require separate special studies outside the scope of this pilot study.

Results

Social values are an important part of an individual's personality because they are derived from an individual's life experiences. Values represent the principles of consciousness that determine someone's decisions and the path of life. Thus, social values reflect an individual's attitude towards public goods and ideals.

In modern society, social values fulfil a broad range of functions. They convey the norms, rules, and principles of behavior that a person is expected to follow within a group. They determine an individual's worldview, which is an axiomatic multi-level system. Note that personal values are influenced by culture. The system of personal values represents a dimension of collective consciousness.

Figure 1
Religion and Culture in Human Capital Formation



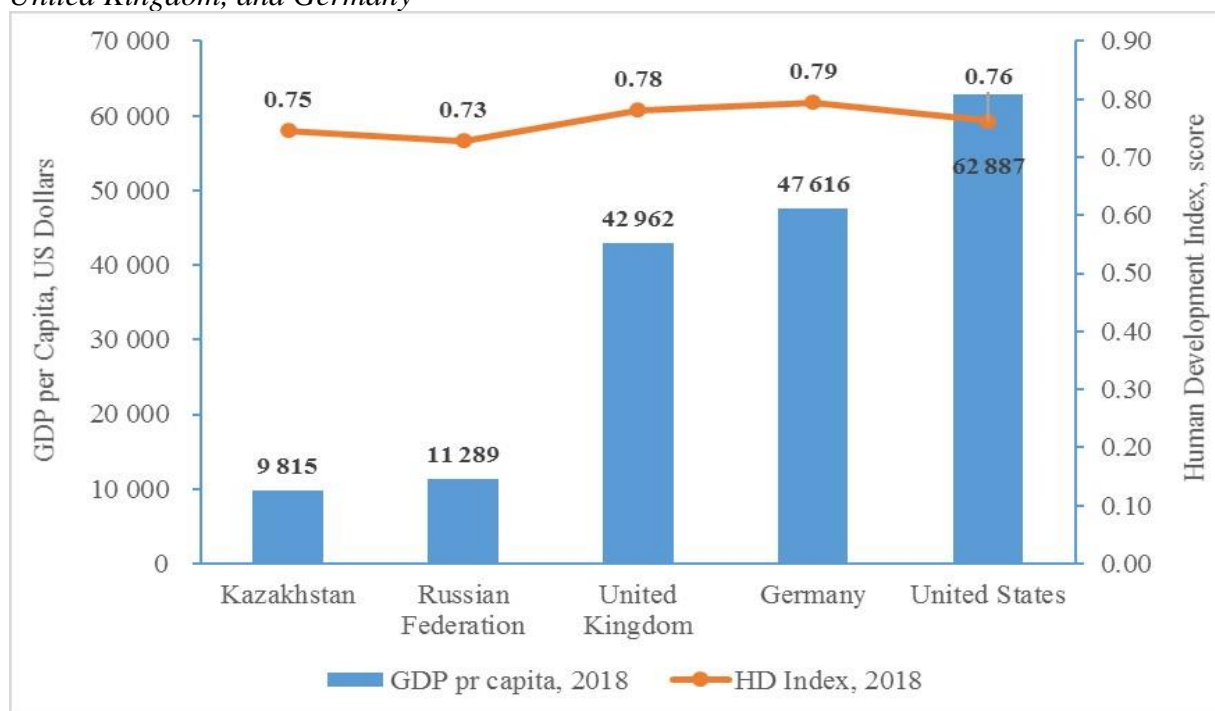
Religious and cultural values influence the development of both the individual and the nation. Primarily, this applies to science (religion and culture shape the attitude towards intellectual development and capabilities to comprehend the secrets of the universe) and education (personal values are a product of socialization and training). From this perspective, human values are crucial for the formation of HC. The impact of religion and culture on HC how the authors see it as a result of comparative studies is depicted in Figure 1. However, it should be noted that such a relationship framework is typical for the secular models of society.

The impact of religion and culture on HC can be illustrated by comparing the economic growth of countries with developing (Russia, Kazakhstan) and developed (the United States, the United Kingdom, and Germany) economies. Orthodoxy is the dominant religion in Russia. The main religion of Kazakhstan is Muslim. Finally, most residents of developed countries are Protestants. Their spiritual orientation can explain the key differences in EG between these countries. For example, there is a paradoxical situation where Russia and Kazakhstan occupy high spots in the HC index ranking but have low GDP (PPP) per capita (Samans, 2017).

The comparative analysis of selected countries shows no direct correlation between Human Development Index and GDP per Capita. Although all countries have similar HDI scores ranging from 73 to 79, their GDP per capita may differ dramatically (Figure 2).

Figure 2

Human Development Index and GDP per Capita for Russia, Kazakhstan, the United States, the United Kingdom, and Germany



Note. Developed by the authors based on data from the World Bank (2018). Data in the chart are only collected from 2018 because information for subsequent years is not available.

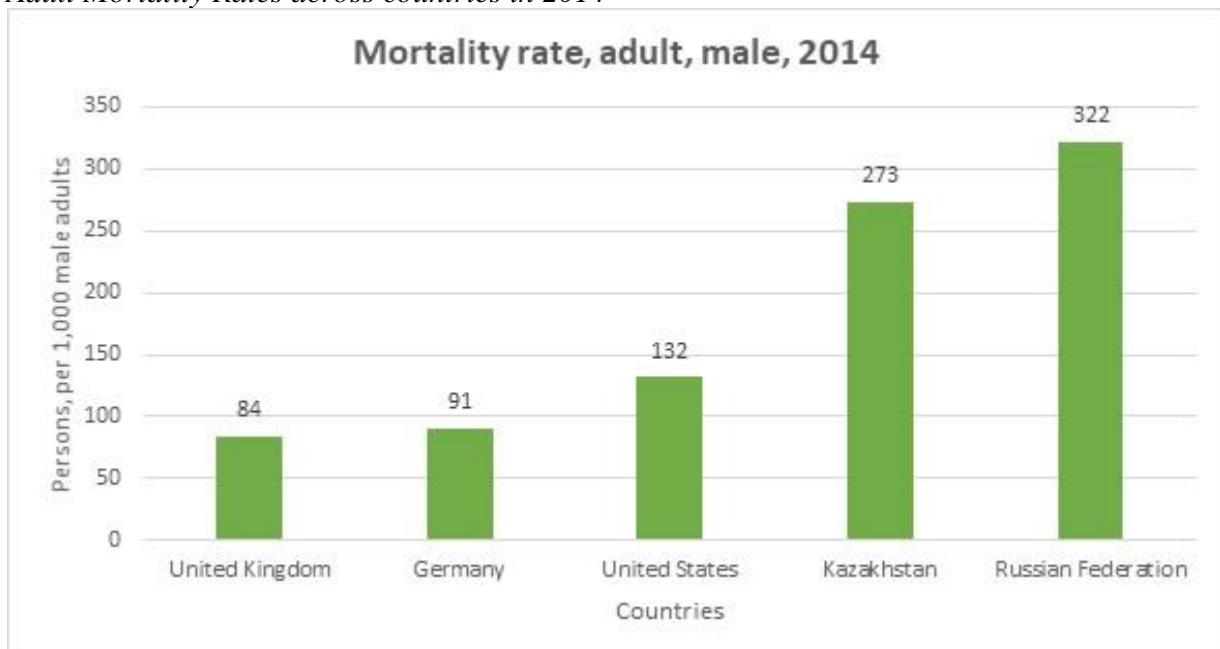
The lag of Russia behind other countries in capitalizing HC can be explained from cultural and religious perspectives. The vision of labor as a tool for the salvation of the soul cannot be confirmed as statistically significant for groups with predominantly Orthodox or Muslim groups (Farooq et al., 2019). However, for predominantly Protestant social groups, professional activity can be perceived as one of the main forms of serving God (Diebolt & Hippe, 2019; Schaltegger & Torgler, 2010). In other words, what is perceived as a path to paradise by representatives of Protestantism is a way to the loss of the soul in the eyes of

Orthodox adherents and Muslims. Even though the production of a skilled and educated workforce may be high, as Russia demonstrates (Ali et al., 2018), the negative perception of material wealth, financial success, career aspirations, and prosperity, laid down by dominated in social mind the Orthodox and Muslim ethics, may significantly hinder the capitalization of HC in Russia and Kazakhstan on a long-time interval.

The difference in religious and cultural values between counties is largely responsible for the life expectancy gap, which is crucial for evaluating the quality of HC. Low life expectancies in many countries are also accompanied by a relatively low level of human potential realization and a relatively higher mortality rate than developed countries, which demonstrate a high level of life expectations (Ali et al., 2018; Samans, 2017). The average probability of death for men aged 15-60 in Russia was more than three times higher than that in Germany and the United States and almost four times higher than that in the United Kingdom. The adult mortality rate of Kazakhstan is two times higher than that for the United States and three times higher when compared to Germany and the United Kingdom (Figure 3).

Figure 3

Adult Mortality Rates across countries in 2014



Note. Developed by authors based on data from the World Bank (2019); most recent year available data presented. Data in the chart are only collected from 2014 because information for subsequent years is not available.

The reason behind such a gap may be the attitude towards the person's latter end. For an Orthodox person, death is nothing more than the separation of the soul from the mortal body, while Protestants distinguish physical death, spiritual death, and death of the newly connected soul and body after the Second Coming of Jesus Christ as a form of punishment. The posthumous existence is more important to the Orthodox Christian than the earthly existence. Protestants believe that when a person dies, his/her soul enters oblivion, waiting for the Last Judgment. It logically follows from the above that for Protestants, it is important to lengthen their earthly life, while Orthodox people see an early death as a faster reunion with God. Entrepreneurial activity, striving for enrichment and high material consumption from the point of view of cultures formed based on religions, which transfer the main emphasis to the soul's existence after life, can be assessed by public consciousness as negative. Culture and religion become factors of psychological restraint of entrepreneurship, which is reflected both at the

level of human capital realization and in the characteristics of economic growth (Lamoreaux, & Flake, 2018; Qayyum et al., 2019; Smirnov & Miroshnikova, 2019).

Another crucial difference between Orthodox and Protestant cultures is that the Orthodox Church spreads collectivism and the Protestant Church promotes individualism. For Orthodox representatives, giving one's own life for another is the highest act of sacrifice, whereas Protestants are more likely to save their own lives. These differences, which form certain stereotypes of social behavior, affect attitudes towards work, fulfillment of contractual obligations, joining economic partnerships, and the level of entrepreneurial claims. All these factors clearly affect the specifications of a particular country's economic growth (Lange & Pfeiffer, 2019; Zallé, 2019). Altruism is mainly understood as an extension of one's own life for effective, large-scale material assistance to those in need. The attitude of Orthodox people and Protestants towards aging also varies. From the Orthodox point of view, an older person who thinks about extending his earthly life for hedonistic reasons rather than saving his soul is considered a social deviant (Agbogun, 2019). This attitude affects the level of socio-economic activity of different age groups, reducing the number of entrepreneurial and economically active individuals at a relatively early age (Mukri et al., 2017; Toprak, 2019).

Thus, we can argue that the links that many researchers note between religious and cultural stereotypes and the economic development rate of countries where the corresponding religions prevail is found in the statistical data considered.

Discussion

The study was built around Rokeach's terminal and instrumental values. On the basis of this approach, the lag in the development of human resources in countries is determined, the predominant religions of which have a low estimate of the importance of worldly life and wealth. Some of modern researches say that an early definition of value labelled value as an enduring belief that certain modes of conduct or ways of existence are more personally or socially acceptable than the opposite ones. The proposed list of personal values includes two types of values: terminal values (referring to desired end-states of existence and goals that a person would like to achieve during a lifetime) and instrumental values (referring to preferable modes of behavior) (Oceja et al., 2019).

The results of the study coincide with similar studies, especially those focusing on countries, which have been stably influenced by one single religion (Lange & Pfeiffer, 2019). Multi-religious and multi-ethnic societies are distinguished by other forms of behavior and realization of human potential, which require a separate study (Guler & Ozer-Imer, 2019). Religion affects a range of economic indicators, such as the use of capital, savings rate, the riskiness of an investment in capital, and more (Farooq et al., 2019; Qayyum et al., 2019; Yong et al., 2019). The indirect effects of religion, such as the behavior of workers who adhere to religious values, are less studied. Some research holds that factors like honesty at work, trust, and corporate responsibility are much more important for general well-being. However, the very concept of social responsibility has its source in the morality of religious origin (Farooq et al., 2019; Pace, 2019).

The Schwartz theory specified the basic human values, which today is considered one of the most recognized value theories (Lee et al., 2019). The Schwartz theory of human values is used both in national and international comparative studies. It holds that values are desirable goals, ordered by importance, that transcend specific situations and guide one's actions. Either of the values can be altruistic or selfish (Lee et al., 2019; Schwartz & Sortheix, 2018).

Other researchers (Agbogun, 2019; Urbano et al., 2019; Rocha et al., 2019) examining religion and culture as factors affecting EG agree with Mamedov's opinion that human capital, defined as knowledge, skills, and personal attributes embodied in the employee, is the main

source of income and the foundation of national wealth (Mamedov et al., 2019). In countries with developing or weak economies, researchers focus not on the employee but on the total population, including individuals who make a living on subsistence farms and through self-employment or wage-employment in the trade industry (Qayyum et al., 2019). For developing countries, in particular for Russia and Kazakhstan, the division of society on the basis of the quality of qualifications due to a smaller number of very highly qualified specialists or a layer of skilled labor is less typical (Shaimerdenova & Garcia-Zamor, 2017; Summers et al., 2017; Sycheva et al., 2019). Based on this, the consideration of the general population as a source of human value can be permissible, as in our study. These jobs are a source of culture, and thus they are potentially conducive to economic development (Caicedo, 2019; Okpa et al., 2018). Culture is related to HC in the sense that it defines the personality characteristic of the person. Since HC influences the total factor productivity, a contributor to GDP, which reflects the ability to produce more with fewer resources (i.e., labor and capital), it can be deemed that culture is also closely related to EG. The magnitude of HC's contribution to economic growth (as measured by GDP) depends not only upon HC itself but also upon the actions of those who use it. HC's external factors include the quality of social relations, civic engagement, and culture (Biryukova et al., 2018; Lange & Pfeiffer, 2019). Nowadays, it is necessary to move towards systemic ideas about HC, overcoming the separation and opposition of human and social capital (Caicedo, 2019; Efimova et al., 2016).

There is a tendency in the current HC literature towards investigating the influence of religion and social values on sustainability (Díez-Esteban et al., 2019; Ives & Kidwell, 2019). Human values and HC have been studied in a secular context for a long time. The situation changed when scholars drew their attention to the role of religion and spirituality in defining and understanding social values (Karaçuka, 2018). Since many religions are broadly associated with self-transcendent values, looking at sustainability through the prism of religion can promote systemic change theories (Ives & Kidwell, 2019). Religious values can be purposefully inculcated within the community to achieve certain economic and social goals. A positive example is the Protestant countries (Okpa et al., 2018). Several studies show a connection between the specifics of analytical frameworks used in different economics fields (e.g., risk management and investment management) and religious and cultural attributes of participants in the economic activity (Díez-Esteban et al., 2019; Farooq et al., 2019; Urbano et al., 2019).

Hadley (2019) claims that HC's current definition is somewhat broader than the initial definition introduced in the second half of the 20th century. First, HC was seen as a combination of knowledge and skills that can bring profit, then now HC is an indicator for assessing a person's life, moral qualities, and socially significant actions (Urbano et al., 2019). At the same time, the assertion that HC has replaced a human being in the culture is somewhat controversial. The number of studies on HC's cultural paradigm is still insufficient to make such a statement (Shaimerdenova & Garcia-Zamor, 2017).

It is not entirely possible to comprehensively examine EG since it is influenced by too many factors, such as education, religion, health system, social protection, and more (Surnitsyna, 2018). However, it is advisable to include as many factors as possible in the EG patterns analysis.

Conclusions

The comparative analysis of the impact of religion and culture on socio-economic growth in countries with different dominant religions revealed that differences in economic growth might result from differences in religious and cultural background. Russia's and Kazakhstan's delay in capitalizing human capital may be provoked by the difference in the attitude these two countries have towards labor compared to other countries chosen for the study

(Germany, the United Kingdom, and the United States). Without claiming the accuracy of the conclusions, several reasons for the observed differences are suggested. The high quality of formal education in Russia and Kazakhstan is largely offset by a negative Orthodox and Muslim attitude to material achievements and financial prosperity. Orthodox representatives perceive individual wealth and career aspirations as sin and arrogance. A similar correlation is observed concerning life expectancy. Low life expectancy in Russia and Kazakhstan may be related to the specific attitude of the Orthodox Church and Islam towards death. The perception of collectivism and individualism also varies among cultures. In Protestantism countries, represented economics of Germany, the United Kingdom, and the United States, one single life is more valuable than it is in Orthodoxy and Islam. Finally, Orthodox people and Protestants are divided in their positions about aging. In Russia, staying social and active when you are an older person is perceived rather negatively. In contrast to developed countries, this leads to a decrease in the economically active population, a parity reduction in GDP, and early mortality. From the Orthodox perspective, older people should care about saving the soul rather than enjoying earthly pleasures. The study results may be useful in teaching cultural disciplines and overcoming the purely economic approach to sustainable development.

This study assumes the following implications:

- expansion for ethnic and religious policy at local and state level;
- determination of methods for diversification of company personnel;
- predicting socio-political changes and behavior of large social groups in different countries in a multi-ethnic and multi-confessional context.

Limitation of the Study

The study's limitations are manifested in the fact that it examines the most generalized aspects of this connection between the power of influence of religious and cultural factors on the formation of human capital and the intensity of economic growth and proves the very fact of its existence. The number of socio-economic indicators used for comparison is also limited, as well as the minimum number of countries, the data on which were used in the study

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